AN EXPLORATION OF TEACHING HAWAIIAN CONCEPTS OF KAIKUA'ANA AND

KAIKAINA THROUGH MINECRAFT

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE
UNIVERSITY OF HAWAI'I AT MĀNOA
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF EDUCATION

IN

PROFESSIONAL EDUCATIONAL PRACTICE

August 2023

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Abstract

Video games, such as the popularized game Minecraft, have been used in a variety of educational settings and learning contexts. Though academic findings of video game usage are mixed, increases in learning competencies, skills and engagement were apparent. While faced with creating an alternative learning plan for teaching kaikuaʻana and kaikaina Hawaiian governance concepts during the COVID-19 pandemic, a college course instructor had chosen to use Minecraft as a platform for student learning.

This blended narrative inquiry case study examined how an instructor's choices in utilizing Minecraft might have affected the learning of kaikuaʻana and kaikaina concepts in a college Hawaiian governance course. This qualitative study portrayed the instructor's story and journey of using Minecraft. From synthesis of emerging themes came the Model for Utilizing Minecraft to Teach Kaikuaʻana and Kaikaina Principles that included the following five components—informed decision making, deliberate instructional choices, meaningful Minecraft experiences, awareness based pivoting, and instructor's reflection and learnings.

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Chapter 1. Introduction

Changing Course

As part of a Hawaiian governance course at Leeward Community College, Kumu (instructor) Laimana taught about the Hawaiian governance concept/principle of kaikuaʻana (older sibling) and kaikaina (younger sibling) relationships and proper behavior. Students were regularly assigned a group learning experience that included developing and completing a project with family or community members while incorporating and utilizing values and actions involved with the learned governance concept such as communication, collaboration, knowledge sharing and relationship building. Due to the COVID-19 pandemic this exercise became unfeasible and an alternative learning strategy was needed to afford students the opportunity to engage with the notions being taught in this course. During the spring semester of 2020, Kumu Laimana substituted the group project with a written assignment. As a result he noticed the learning outcomes lacked robust experiences and relational interchange similar to his normally assigned project. While still in the grips of online learning during the spring semester of 2021, Kumu Laimana grappled with producing an alternative to the group project, not wanting to replicate just requiring for students to submit a paper as a method to acquiring higher levels of kaikuaʻana and kaikaina understanding.

It was a Minecraft class, offered by Kumu's daughter, Jenny, that would spark an idea to use a technological video game medium to reinforce teachings of Hawaiian governance. Minecraft, a sandbox type game where players mine, craft, and build in order to survive onslaughts of monster attacks had been used recently by Jenny as a method of instruction. Kumu Laimana began discussions with his daughter and grandchildren about their exploits within their Minecraft class. Jenny's use of Minecraft involved a variety of group activities and peer to peer

teaching and learning. This stimulated Kumu Laimana to theorize about the potential of teaching governance concepts through team building and experiential learning aspects within the video game. The features of player-to-player interactions like communication and collaboration, afforded in peer teaching and group building tasks, were areas that really piqued his interest. His early questions centered on how activities in Minecraft could be tailored to foster cooperation, efficiency, and teamwork. Thus, he initiated thoughtful conversation with his daughter, to explore if Minecraft could provide applications of the Hawaiian systems of governance principles he currently taught. The duo decided that scenarios would be needed to naturally encourage opportunities and decisions toward cooperation and leadership. Not having played Minecraft before and just beginning to learn the game, Kumu Laimana realized that he needed experts to help assist and administer within the game setup. He would finally decide to pursue the idea mainly because he now had access to a number of individuals that were experts in the game and who had agreed to help. Upon reflection, Kumu Laimana would not have chosen Minecraft so quickly if he did not have those people around him who could help with and handle the in-game logistics and bringing students' skills and abilities up to speed.

Kumu Laimana piloted the use of Minecraft in his Hawaiian governance course over a three-week period to support his teaching of the kaikuaʻana and kaikaina concepts through a fully online course. Similar to a study by Cipollone et al. (2014) among high school students that utilized non-instructor Minecraft experts, Jenny provided a server and with youth experts assisted with in-game administration. Still, some challenges arose early on for those unfamiliar with the game. Toward the latter part of class students' ability levels progressed satisfactorily and allowed them the capacity to complete assigned group tasks and missions as part of the learning plan. Whether the game would be a success was not apparent until the last class. Though

Kumu Laimana saw glimpses of engagement and proper protocol exhibited throughout the experience, it was the students' reactions and heartfelt appreciation of their fellow classmates that confirmed the game's success. Upon further reflection, the biggest challenges lay in getting each student setup for gameplay such as dealing with wrong versions of the game, equipment issues, and registering accounts. If not for his daughter as an administrator and the expert helpers involved Kumu Laimana felt that students would not have been able to be ready or prepared to play. Overall, he found that incorporating Minecraft did provide opportunities for students to experience, experiment with and reflect on the principles taught through the governance course's kaikuaʻana and kaikaina section. The level of learning that took place was comparable to the previously used group projects as he saw students applying what they had learned. Though the incorporation of the video game learning component was only for a short period of time, Kumu Laimana was interested in continuing the use of Minecraft in his Hawaiian governance courses and learning further about how this modality can be best utilized in the context of teaching cultural knowledge. He has even familiarized himself more with Minecraft gameplay and improving on the scenarios and challenges he planned to offer. Kumu Laimana honestly did not think he would have even considered Minecraft had the pandemic not created a need for an alternative experiential project, but noted that the video game is a much more attractive possibility as compared to a standard paper. Minecraft's platform of interactive gameplay exhibited high worth and potential for educational applications such as the teaching of kaikuaʻana and kaikaina concepts of proper behavior and thus supported a case for further examination and research to see how this instructor's choices within the utilization of Minecraft might affect student learning and be best utilized (or modified) to effectively teach kaikuaʻana and kaikaina concepts.

Why Minecraft

Gameplay within Minecraft was founded on the simple notion of mining resources and building objects in order to survive within a layout that provided essentially endless creative possibility. Minecraft was a "java multiplayer sandbox game" with the simple premise of players seeking and obtaining resource items, then using those items to build and develop the landscape within the game (Ekaputra et al., 2013). Developed by Markus "Notch" Persson and released in 2009, Minecraft combined the need for a player to build while also survive the threat of various attacking elements (Nguyen, 2016). Clement (2021) reported that as of May 2020, there have been over 200 million copies of Minecraft sold throughout the world. The game basically provided players with a blank canvas and flexibility for many user actions only confined to game design and one's imagination (Mojang, 2022). As a game, Minecraft combined basic foundational aspects and drastically expansive user options.

Constructivism as a Guiding Theoretical Framework

When contemplating the learning of any knowledge it is logical to consider how an individual learns a particular thing. Constructivism offered insight to the mechanisms of an individual's learning process and provided value as a guiding theoretical framework for the learning of kaikuaʻana and kaikaina concepts through Minecraft.

Constructivism

Hein (1991) contributed that constructivism holds the learner paramount and is based on the notion that people alone are responsible for the construction of knowledge within themselves and do this by attaching meaning to the particular thing they are learning. If there is no meaning associated then there can be no learning, and this can only be done by the individual. Amineh and Asl (2015, p. 1) suggested this theory was used "to probe for children's level of

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understanding and to show that that understanding can increase and change to higher level thinking (as cited in Mvududu & Thiel-Burgess, 2012). Amineh and Asl (2015) also posited that "with constructivism as an educational theory in mind, the teachers should consider what students know and allow their students to put their knowledge into practice" (p. 1). This theory placed the learner in the priority position and aligned the subject and teacher to the course of learning, if not placing them in a secondary position. Thus when dealing with learning it would behoove an educator to have efforts and strategies concentrated on the learner and how best the content can be unpacked to fit the learner connecting meaning to the concept. This conveyed better engagement and connection to the lesson and the potential meaning attached to the knowledge gained.

Learning through Doing

Constructivist theoretical approaches were closely aligned to Hawaiian epistemological perspectives of learning. Hawaiian epistemology can be seen as the cultural or traditional Hawaiian way of knowledge acquisition or study, of which there is a variety of elements. Puku'i (1983) shared one sentiment of Hawaiian learning through the 'ōlelo no'eau (proverb, poetical saying), "Ma ka hana ka 'ike. In working one learns" (p. 227). This perspective denoted that for one to learn, there needs to be some kind of act that is engaged in by the individual. Thus, the individual's experience in doing a particular thing is highly valued in the acquisition of knowledge by that individual. Like aspects of constructivism, in terms of focus being placed on the learner, learning through doing focused on the student learning occurring with actions taken through practical experience and application.

Problem of Practice

The switch to pure online learning due to COVID-19 threw a wrench into the established in-person projects critical for learning kaikuaʻana and kaikaina concepts and putting them into practice. Thus, the problem of practice focused on how effectively students are learning the Hawaiian concepts of kaikuaʻana and kaikaina.

With the incorporation of Minecraft as a learning and teaching medium within the Leeward Community College Hawaiian Governance course, the specific research interest within this project became the examination of learning kaikuaʻana and kaikaina concepts through the use of Minecraft. A further specific research interest was looking as one instructor's teaching and instructional choices.

A couple of the overarching challenges in the arena of incorporating video games into education were the perceptions of playtime not translating to learning as well as the hurdles teachers often encountered to implement such strategies. The idea of learning through play, especially in video games, is often seen as lacking empirical evidence of effectiveness (Vlachopoulos & Makri, 2017). Even if teachers were interested in the topic, which some are not, implementing video games for learning is sometimes unprioritized due to numerous other job expectations cascaded down from leaders. Incentives to implement and acquire the skills to properly incorporate video games into learning rarely existed in traditional educational systems (Cipollone et al., 2014). This recent transition to online learning has illuminated a particular case for exploring the use of video games, like Minecraft, as an experience-based teaching and learning strategy for a Hawaiian governance course at the college level. In this case, scarce amounts of literature actually focused on the trifecta of video game learning, Hawaiian governance content, and college-level students.

Research Question

Through the examination of a particular case where an instructor has chosen to use the video game Minecraft as a strategy for the teaching of Hawaiian concepts, insight was gathered to further academic knowledge in the area of tooling digital resources for higher education Hawaiian content learning. Accordingly, this study asked the following research questions:

1. How did the choices of the instructor of a Hawaiian governance course to use Minecraft affect the learning of kaikuaʻana and kaikaina concepts among community college students?

2. Why was Minecraft chosen as a tool to teach kaikuaʻana and kaikaina concepts?

3. What were the highlights and challenges in preparing for and using Minecraft to teach kaikuaʻana and kaikaina concepts?

4. What were the positive or negative takeaways from the use of Minecraft to teach the learning of kaikuaʻana and kaikaina among the community college students?

Research Objectives

This research conveyed the story of one instructor's journey in utilizing Minecraft for teaching the concept of kaikuaʻana and kaikaina relationships to community college students.

Scope of the Study

In this study the dependent variable was the perceived learning of kaikuaʻana and kaikaina concepts among students while the independent variable was the choices, and journey, of the instructor to utilize the video game Minecraft. The research participant was Kumu Laimana, instructor of the HWST 298/245 course entitled Living with Kuleana: Hawaiian Systems of Governance.

A qualitative methodological approach incorporating elements of narrative inquiry and case study was used. Narrative inquiry is defined in this context as research that centers on the expressed experiences of individuals as descriptors of connections and interplay (Lochmiller & Lester, 2017 and Marshall & Rossman, 2016). Case study here is seen as an in-depth look at one or more instances within a larger enclosed structure (Lochmiller & Lester, 2017 and Merriam & Tisdell, 2016). This emergent approach closely considered the context, perspective, approach, and involved voice of Kumu Laimana amongst the wider variables that make up a college course teaching Hawaiian concepts. Data were collected primarily through instructor interviews and secondarily through a document review of existing educational practice. Interviews of the instructor were conducted to gather information regarding each iteration, design of instruction, approaches taken, and perceptions of student learning achieved. Document review was utilized to collect data that enriched the narrative inquiry of this study. This was a blended narrative inquiry case study centered on the experiences and choices of the instructor choosing to incorporate Minecraft in a Hawaiian governance course at Leeward Community College utilizing Minecraft as a learning platform.

HWST 298/245: Hawaiian Systems of Governance

Through a Hawaiian governance course, learners were taught governance structures exhibited by Hawaiians before the enacted western constitutional monarchy and how this approach increased their societal cooperation and efficiency. The HWST 245/298 course entitled Living with Kuleana: Hawaiian Systems of Governance was structured around research conducted by John Kalei Laimana and the developed concepts written in his master's thesis. In his thesis, Laimana (2011) expounded on the role Hawaiians played in their country's accelerated rise to literacy during the 1800s and provided evidence antithetical to remarks of

Hawaiians having a feudal like system of governance but rather highlighted how behaviors like kaikuaʻana and kaikaina relationships played a key part of a system of governance and protocol that allowed for increased cooperation and societal efficiency. Learners within this course strived to understand the opposing concepts of single, also seen as feudal, and two-tier systems of governance, compared societal systems that places money as paramount worth versus a system that values mana, sought understanding toward historical components of Hawaiian governmental structures prior to a constitutional monarchy, and recognized concepts and principles of the proper code of behavior inherent in the kaikuaʻana and kaikaina relationships as seen in the cooperatively efficient relationships between the aliʻi (chiefs) and makaʻāinana (people in general).

Research Definitions, Positionality, Assumptions, and Limitations

Research Definitions

This section defined basic key terms relating to this study that have not been discussed in previous sections.

1. The terms "kaikuaʻana" and "kaikaina" were literally defined by Pukuʻi (1983) as older sibling or cousin of the same gender, kaikuaʻana, and younger sibling or cousin of the same gender, kaikaina. An additional meaning pertinent to this study included the kaikuaʻana as that of caretaker or leader and the kaikaina as the one who received care or follower. This relationship coincided with relational dynamics and proper protocols of behavior as taught in the previously mentioned Hawaiian governance course.

2. "Minecraft" was a video game played on personal computer or game console which will be explained in more detail later.

3. "Kuleana" was defined as responsibility; right; concern; and privilege.

4. "Kumu" was defined as an instructor or teacher.

5. "Game based learning" was described as the use of games to produce some learning goal or outcome.

6. "Video game learning", "digital learning", "serious games" and "simulations" was used synonymously and was described as the use of video or digital games that include electronically maneuvering images on a display for an educational purpose or gaining of some type of knowledge.

7. "Hawaiian cultural content or knowledge" can be seen as information stemming from or solely relevant to the history, culture, and people of the Hawaiian Islands.

Research Assumptions

This section laid out research assumptions made within this study. One key assumption is that, although there has been assurance that the HWST 298/245 course will have been taught with the utilization of Minecraft for teaching kaikuaʻana and kaikaina concepts, and signed up for by students, during the school year and semester agreed upon, in this case Fall of 2022, there was no guarantee that everything would go according to the current plan. Another assumption was that the course would have a distributed make up of students' abilities to navigate and participate in a video game environment. For example, if the entire class was made entirely up of new players it may have been perceived hard for the instructional progression to arrive at tasks and challenges that may have been beneficial to achieving the learning outcomes rather than just the learning of basic maneuvering abilities.

Research Positionality

The researcher's relationship to the main participant within the study, and course assistants, aligned to indigenous methodological approaches and positioned this endeavor as insider research. Smith (2021) articulated the calling out and highlighting of specific research practices based on indigenous perspectives and practices. Meyer (2013) identified relationships as one aspect to a Hawaiian epistemology. John Kalei Laimana, father-in-law of the researcher, was the main participant of this narrative inquire case study. Additionally, Kumu Laimana enlisted the help of Minecraft assistants, when availability allowed, through the means of the researcher's wife Jenny, and their school-aged children. Thus, there was close familial ties between the instructor, Minecraft assistants, and the researcher.

Having such a close connection to the participant and related course assistants pushed this study into the realm of insider research. Smith (2021) puts forth that though insider research strays from traditional western approaches aligned to positivism, and the inherent perceptions of objectivity, critical theories, such as feminism, have paved a path for more acceptance of insider research within qualitative approaches. Perceived advantages of an insider research approach besides the potential for informal data gathering and understanding was the diligence of effort inherent in a researcher that is determined to maintain their relationships long after the study is over. Understandably, Smith (2021) emphasizes the importance of reflexivity within insider research and the criticality of developing the necessary supports to delineate clarity in research goals and methodological norms. For this reason, the researcher focused heavily on building a clear research methodology and communicated clearly to research goals and the compartmentalization of implications for future research. It is also key to mention that the

researcher had no defined role within the classroom structure and relied heavily on Kumu Laimana as the main subject matter expert.

Through an indigenous lens the relationships held through this study were a part of a deeper layer of understanding sometimes not considered in a more western academic approach. Meyer (2013) identified the concepts of a holographic epistemology in which the aspects of the physical, the mind, and the spiritual combine to determine indigenous understanding and philosophy. Based on this theory, the researcher holds the formal research process in the physical space, while the close relationships are housed in the mind space. Subsequently, a deep understanding and indigenous understanding that will benefit future generations occupy the spiritual space. The trilogy of selected words comprising this notion were need, family, and thriving.

Research Limitations

The first of the perceived limitations related to data collection. While the bulk of data collection relied on the successful completion of six instructor interviews, the size of class participants may also have posed as a limiting factor in the continuation of the course instructor utilizing Minecraft with the course mentioned earlier.

Additionally, there were no studies among college students, or other student populations, that identified the use of Minecraft coupled with Hawaiian governance courses or Hawaiian concepts in general. This factor limited the number of studies or methods that can be referenced or replicated to achieve objectives of the study at hand. Similar studies, though not specific to a college level Hawaiian governance, or concepts, course were still used as reference for research methods in this study.

The last perceived limitation within this study was the factor of time and whether there would be enough time to collect and analyze the amount of data anticipated. As a professional in education and a doctoral student, the amount of time needed complete the study was limited and finite. Opportunities to resynthesize data were limited and the scope of the study needed to be strictly adhered to.

Chapter 2. Literature Review

Role of Games in Education

Academic researchers studied and expressed the varied delineation and evolution of games used in education and took notice of the value and detriments games brought to the educational arena. The following section provided definitions of games and their effectiveness and limitations as appeared in an educational context.

Defining Games for Education

Educational researchers provided varying descriptions of games used in education but connected most to a cognitive process or purpose and historical usage. Carvalho et al. (2011) defined educational games as "structured activity focused on pleasure, not discarding the educational purpose" (p. 2) and saw games as a way to help students not only learn but retain concepts while formulating 21st century skills. Games within education are often classified for aspects relating to enjoyment as well as learning or problem-solving intention. Oblinger (2006) posited that "games should be thought of as a family of related items; they are not all alike-they are not designed for the same audiences, nor do they incorporate the same features or game play" (p. 1). To Oblinger, games were seen as broadly connected but having distinct attributes that in a way, are created and intended for use. Furthermore, Moursund (2006) proposed that the problem solving occurring in games allows for the development and storage of information and patterns involved in computational thinking. Howland et al. (2013) expressed that "games are among the oldest forms of entertainment in the world. In addition to sporting games, board games, and social games, newer kinds of video and computer-based games can be used to support meaningful learning in classrooms" (p. 61). Games have been used throughout history and

continued to entertain. As a variety of taxonomies were used for the numerous amounts of game genres, Gros (2007) provided a classification of games into the following focus areas:

1. Action games (also called platform games)—These games are reaction-based; most of the games of the first generation are action games.

2. Adventure games—The player solves a number of tests in order to progress through a virtual world.

3. Fighting games—These games involve fighting against computer-controlled characters or those controlled by other players.

4. Role-playing games—Human players assume the characteristics of some person or creature.

5. Simulations—The player has to succeed within some simplified recreation of a place or situation to achieve a particular goal.

6. Sports games—The games are based on sports.

7. Strategy games—These games that recreate a historical or fictional situation to allow a player to devise an appropriate strategy to achieve a goal.

Games used in education served a purpose, built cognition and had connecting factors but were diverse in type.

Effectiveness of Games for Education

Studies have shown that games used for educational purposes, improved students' ability to hold onto content (Randel et al., 1992); enhanced knowledge acquisition, even of high level science proficiency (Munoz et al. 2009); enhanced cognitive ability (Crocco, 2016; Lukosch, 2016); and increased student engagement and decreased teacher workload (Sarabia-Cobo, 2016; Angelini, 2016; Geithner & Menzel, 2016; Dankbaar et al., 2016; Galbis-Córdova et al., 2017;

Carpick 2002; Lameras et al., 2016). Through a meta-analysis of varying grade levels extending from elementary to college, in studies from 1963 to 1991, Randel et al. (1992) expressed an increase of information retention over time when simulation/games were used instead of conventional instruction. Munoz et al. (2009) found that the use of commercial and educational games improved student learning in physics within two particular case studies. Crocco (2016) illustrated the ability games had to provide higher level cognitive processing. While Lukosch (2016) emphasized how micro games provided enhanced situational and experiential learning by allowing a player to use knowledge gained in relevant simulated settings. A number of studies affirmed student engagement favorability and satisfaction toward the use of game-based learning in the classroom (Sarabia-Cobo, 2016; Angelini, 2016; Geithner & Menzel, 2016; Dankbaar et al., 2016; Galbis-Córdova et al., 2017). Carpick (2002) showed the usage of game show type quiz techniques in the classroom to have been effective in capturing high amounts of attention and alertness among students while also relaxing the instructor and requiring minimal preparation. In fact, Lameras et al. (2016) suggested that instructors were the key aspect to connecting the learning content to the game environment, encouraged students, and ensured activities were tied to learning outcomes. Application of games to learning and instruction positively affected student knowledge consumption and cognitive ability, provided favorable student engagement attitudes, increased classroom focus and eased the instructional burden placed on the instructor.

Limitations of Games for Education

The use of games in learning were seen to be limited by the course subject type, like math versus language arts, it was incorporated into, the varying nature of learning through complex game problems, the inability of the game itself to fix learning on its own and the lack of

comfortability from exposure interaction components of gameplay. In the previously mentioned meta-analysis study, Randel et al. (1992) also concluded that subject matter should determine if simulations/games are used for instruction due to findings that showed prevalent differences favored simulations/games in the subject areas of math, physics and language arts as opposed to the subject of social sciences, which showed less favorable results of having games incorporated into the learning. Simply put, games can have adverse effects based on the content area they are paired with. Rowan and Beavis (2017) revealed that games would not "automatically transform learning environments or generate quality outcomes" (p. 183). Squire (2005) posed the notion that games delivered "complex holistic problems" as opposed to "short, solvable problems with all necessary information laid out," which can be problematic to students that preferred or are preconditioned to the latter (p. 3). Thus, games inclusion included learning formats potentially unfamiliar to some students. Carpick (2002) found that students who were more reserved ran the risk of freezing when being called upon in the classroom quiz game and thus, may have felt discouraged or embarrassed from the experience. Coupling games with learning could have incurred impediments such as the need to have placed games in specific content area classes, which presented students with unfamiliar learning process associated with complex problem solving, and exposed students to situations that may lead to elevated levels of anxiety.

Use of Video Game Learning in Education

Usage of video game learning in education had its pluses and minuses as an educational tool. The following section presented these ideas as well as expounded on the role of an instructor in video game learning and the current gaps found in the literature.

Value of Video Game Learning

      Studies have shown that video games had positive effects on engagement, student learning, skill and competency building, and well-being. Martí-Parreño et al. (2018) convey that when undergraduate students had clear perceptions of relevance, confidence, media affinity and self-efficacy they were more likely to have stronger positive attitudes for the use of educational video games as a tool to build competencies. Through a meta-analysis of empirical articles, Vlachopoulos and Makri (2017) indicated that higher education students' use of digital games and simulations had an effect on cognitive outcomes similar to more traditional learning systems relating to acquiring knowledge and concept understanding. In a systematic review of literature, Fu et al. (2016) affirmed that computer and serious games in business education and training showed positive outcomes in relation to cognitive skills. In fact, through media comparison research, Mayer (2016) revealed that computer games learning proved more instrumental for teaching science when compared to traditional media. Contemplating cognitive enhancement, Vidal (2020), specifically suggested that among college economics students, video games provided "a complex and immersive environment that the players must learn in order to succeed, and in many cases that world is a simulated version of reality" (p. 189). In a meta-analysis spanning the last decade, Zhonggen (2019) asserted that serious games did lead to cognitive improvements as well as mood enhancement. In terms of skill and competency building, researchers have denoted increases in higher education graduate skills of communication, resourcefulness, adaptability as well as collaboration and problem solving (Barr, 2017; Barr, 2018; Beavis et al., 2017). Halbrook et al. (2019) showed that while dependent on factors such as "moderation, the aspects involved, such as social aspects, violence, or physical activity, and the motivations behind playing the game", video games did benefit "multi-faceted" aspects of a

player's well-being. Vlachopoulos and Makri (2017) avowed that video games yielded affective and behavioral outcomes such as enhanced student experiences, learning from cooperative interactions and relating as well as provided feedback to others in team settings. Fu et al. (2016) concurred that video games were able to bring about student engagement and interpersonal behavioral increases. Siyahhan and Gee (2018) added that video games are prime for situational learning and interactions among families looking to connect and gain knowledge as a unit. Beavis et al. (2017) noticed that video games supplied more free opportunities for students to create, imagine and play. Hanghøj et al. (2018) postulated that though video game learning can have multidimensional effects, it did have a positive impact on at-risk students' well-being while decreasing instances needed for external regulation. Clearly, video games have been seen to enhance learning, skill and competency building, and benefit students holistically.

Considerations for Deeper Learning through Video Games. The layered and intricate aspects of video game learning allowed for deeper dives toward learner outcomes. Gee (2003) saw video games as better suited vehicles for students aspiring to career fields as evident in the ability for video games to readily disseminate needed content, personalize student learning and challenge levels, create, collaborate, develop identity, solve increasingly complex problems, and increase motivation leading to self-efficacy. Gee (2006) also remarked that features including:

Video games can create an embodied empathy for a complex system … They are simulations of embodied experience … They involve distributed intelligence via the creation of smart tools … They create opportunities for cross-functional affiliation … They allow meanings to be situated … They can be open-ended, allowing for goals that meld the personal and the social. (p. 179)

were linked to attributes of deep learning. Thus, experiences in video game learning provided complexities that equated to increased cognition. Howland et al. (2013) expounded on the work of Gee (2003) having equated *Active, Critical Learning Principle*, from video game learning, to that of "all aspects of the learning environment (including the ways in which the domain is designed and presented) are set up to encourage active and critical, not passive learning" (p. 63). Additionally, Howland et al. (2013), guided by the work of Gee (2003) presented the *Psychosocial Moratorium Principle*, also prevalent in video game learning, which suggested that users were able to hedge greater risk in digital platform actions that they normally might not have considered in reality. Studies have shown that video game learning, in its entirety as an experience, provided increased knowledge building as compared to conventional educational techniques.

Role of an Instructor in Video Game Learning

Equally as important in video game learning was the role of an instructor toward acceptance of use, design, and instructional delivery. Franciosi (2019) asserted that instructors played a key role in choosing to utilize video game learning or not as the researcher's study displayed that instructors that may have an understanding of the benefits related to video game based learning still showed a lack of support toward its effectiveness to achieve learning outcomes. In fact, Sánchez-Mena et al. (2017) maintained that higher education teachers were more likely to utilize video games for learning if they could clearly see the usefulness involved. Vlachopoulos and Makri (2017) contended that the "integration of games depends on instructors' contribution and the way they design and incorporate games in their teaching" (p. 8). Gee (2016) provided philosophical support toward the criticality of a well-designed and interactively designed experience within video game learning. For video game learning to flourish instructors

held the key to, first, choosing the medium and next, incorporating the appropriate design and facilitation needed to achieve success.

Limitations of Video Game Learning

Limitations for the utilization of video games for education as seen in the literature included a lack of empirical evidence and systems usage, an inability for games to be the lone silver bullet, instructional hurdles of use, varying levels of engagement among students, and a potential for negative learning impacts based on increased mental workloads. Fu et al. (2016) claimed that there was still a lack of strong evidence toward video game learning and its ability to effectively achieve learning outcomes. Vlachopoulos and Makri (2017) also cited a lack of empirical evidence which showed the effectiveness of games and simulations. Additionally, the authors remarked that there has been no direct framework provided by governmental agencies or established educational institutions of formal guidelines for the usage of digital games and simulations within the classroom setting. Beavis et al. (2017) remarked that video games alone would not be able to assure learning is occurring and that this medium of instruction is heavily reliant on schools and systems ensuring the correct balance of included pedagogy. Rowan (2017) shared similar sentiments in that digital games alone were not able to ensure learning and that teacher influence, planning, facilitation and commitment to usage and experimentation remained key. When it came to the hurdles instructors may face, Sánchez-Mena et al. (2017) offered that though an instructor may have found video game learning to be an easier way of instructing it did not mean that those sentiments would have led to an intention of use. Additionally the author mentioned that general differences were in play as older teachers had varying attitudes towards ease of use. Another explanation, more on the secondary and elementary education levels for teachers not adopting video games for learning is attributed to either non-interest or an inability

to move to the digital space based on an overload of responsibility directives either from school leadership, or state, or national, mandates (Cipollone et al., 2014). Even if teachers did choose to implement video game learning, Martí-Parreño et al. (2018) warned that teachers would still consider treading with caution and care in the selection and planning of using video games for educational purposes. The engagement factor of video games was also not a guarantee. Barr (2018) described that students were able to distinguish between more appealing and less appealing games and would choose to continue or not with the intervention based on their enthusiasm. Squire (2005) denoted that the intricate and complicated nature that make video games so interesting could have been overwhelming to learners new to the medium and while though the prevalent nature of failure within video games served as a necessity for learning it remained a reason for frustration and helplessness among new learners. Barr (2017) added that technical issues debilitated the video game learning experience. Zhonggen (2019) described how video games could have negatively affected learning if the mental workload shouldered from the game became too burdensome. Video game learning was often limited by the perceived lack of evidence surrounding effectiveness, inability to stand alone in delivering results, impediments towards instructor use, non-standard appeal toward video games or its inherent challenges and the negative effects toward learning experienced by excess mental workload.

Gaps in Video Game Learning Literature

Some areas of focus needing further study were: more qualitative approaches to back up completed quantitative studies, examinations of university level instructor experiences in implementing video game learning, looking at how schools can be reorganized to put video game learning at the center, and video games' impact on the teaching and learning of Hawaiian knowledge. Galbis-Córdova et al. (2017) recognized that their quantitative based study should be

followed up with a future study seeking qualitative aspects such as students' perceptions of developing competencies or the understanding of features that increased students' attention in educational video games. Vlachopoulos and Makri (2017) advanced the following need for future research:

- University instructors should take a more active role in alignment of games with the curriculum ensuring that games and simulations are implemented in a blended learning module (face-to-face, online material, etc.), or even acting as games masters, scaffolding virtual experiences to university learners.

- Faculty should design games with a view to multiplayer cooperation to achieve effectiveness in learning outcomes. Students should also be involved as co-designers, recommending innovative ideas and radical approaches in an effort to meet their own needs. (p. 28)

Squire (2005) alluded to the need for designing "a good educational system for an educational game to flourish in" (p. 6). In other words, a redesigned school setting to be places where video games can fit and be the norm of instruction. Additionally, gaps in the literature existed regarding the impact of video game learning in relation to Hawaiian knowledge learning, as brought forth by this study. Future academic research was needed in the areas of more qualitative video game learning studies, university level instructor experience studies and reforming schools to fit video game learning and not the other way around; and studies that showed the impact of video games toward Hawaiian (also perhaps other Indigenous communities') knowledge learning.

Minecraft

The following section delved deeper into the video Minecraft through the expression of general aspects of the game, what made the game special in terms of engagement, the pro-social qualities found to be outcomes of using Minecraft in various studies, as well as the limiting factors of using Minecraft for education. Pro-social aspects portrayed in this section included collaboration, creativity, constructivist and constructionist approaches, and achievement of learning outcomes. The section concluded with the identified gaps in the literature.

Introduction of the Game

The video game Minecraft was based on a simple premise not typical of most games and saw players focused in the actions of exploring, gathering, build, and surviving, either with others or not. Nebel et al. (2016) credited Zachary Barth's game entitled Infiniminer, created in 2009, which featured "simple independent, block-shaped entities" where "users who enter this randomly generated game world mine and place blocks, and thus recreate anything that can be constructed within this block-based structure", to have been an inspiration to Markus Persson's creation of Minecraft (p. 356). Duncan (2019) explained that this sandbox type video game allowed a user to create a world in which play was initiated by players who explored and mined for resources at will and eventually crafted items, weapons and structures, to support survival against a number of foes that may include spiders, skeletons, zombies and Creepers. Ellison and Evans (2016) reinforced the idea that players were in full control of the design and manipulation of their simulated world in single player and multiplayer modes. An appeal of the game was the fact that players, of varying expertise levels, had a range of ways they could navigate and interact within the game. Nebel et al. (2016) cited a players' ability to utilize varying block types to construct physical renderings of objects as well as develop circuits and automatic functions using

items like redstone blocks, access to a large community of players through server capacities, the momentum a player experienced through survival mode, and creation endeavors as the key aspects of the game that provided a basis for widespread user preference and ability. There was also the classroom friendly version, Minecraft Edu, designed for teacher use with school ready functionality (Callaghan, 2016). Minecraft was a unique game, void of typical player goals, which allowed players to discover, create either with the added pressure of survival or not, and to have done these functions with others or by oneself, with the ability to have played at varying levels of skill including the likes of educational specific platforms.

Positive Impact Elements Derived from Minecraft Research

Studies have shown an array of positive impact elements risen from students' use of Minecraft. A few of these elements included collaboration, creativity and flexibility, immersive experiences, constructivist approaches, achievements of cognitive results and learning outcomes, and teacher involvement. The following sections provided deeper insight into these identified positive impact elements.

Collaboration, Creativity & Flexibility. Studies have found natural fits of collaboration, creativity, and flexibility in the Minecraft game design. Nebel et al. (2016), in reference to the work of Short (2012), affirmed that "the simple multiplayer structure of the game with individual servers enables collaboration between instructors and researchers in creating content or executing learning" (p. 359). Ellison and Evans (2016) saw the openness of space in the gaming platform as ideal for creative play and navigation. Callaghan (2016) found that secondary students engaged in authentic collaboration and often became willing to teach and provided insights to others in order to accomplish challenges or complete the task of building. Lane and Yi (2017) acknowledged Minecraft's capacity to provide avenues for creativity,

collaboration, and flexibility in allowing for multiple educational purposes. Baek and Min (2020) note the ability for Minecraft to be incorporated into a variety of subjects. Minecraft offered a platform constructed to generate authentically collaborative, creative, and flexible experiences.

Immersive Experiences. Minecraft was a platform that provided students with immersive experiences set in a digital realm. Sanders (2021) proposed that the game brought forth an ideally situated platform already enhanced for students to learn, construct and link with others in autonomous and interactive ways. Cózar-Gutiérrez and Sáez-López (2016) reverberated that even students that would categorize video games as not essential to the classroom saw the learning experience in Minecraft as immersive and leading to more student activity and engagement. The game environment within Minecraft afforded users with truly immersive experiences.

Constructivist Approach. Studies involving the use of Minecraft for educational purposes identified the building of knowledge through constructivism and constructionism embedded in the play and build aspects of the game. Nebel et al. (2016) elevated the previously studied idea of "transformational play" and suggested that as "players can cooperate, self-regulate, and engage in problems with many interactive elements" they gained knowledge through a process of constructivism (p. 359). The statement suggested that the play exhibited is actually part of a process whereby students are took experiences within the game, denoted value to those experiences and in turn built knowledge based on that play.

Achieving Learning. Examples ranged in the achievement of learning through the use of Minecraft. Baek and Min (2020) remarked that Minecraft use for education led to persistent effort and resulted in the enhancing of skills and knowledge acquisition. Callaghan (2016) showcased that all 168 secondary school students, participating in the related study, were "able

to attain learning outcomes by using Minecraft Edu" while "both the teacher and her students expressed that Minecraft Edu played a critical role in students creating an authentic task as well as reaching the desired outcomes" (p. 253). Wershler and Simon (2021) associated their instance of allegorical builds happening in Minecraft to students having utilized the skills they have learned while they played and connected those skills to have accomplish the prescribed academic work assigned. Minecraft produced quality learning outcomes among students.

Enhancing Teaching Opportunities. The use of the Minecraft game afforded teachers additional resource and opportunity for learning design and implementation. Lincenberg and Eynon (2021) presented the idea that Minecraft nurtures a hybrid space where teachers and students interacted and engaged in challenges together. Lane and Yi (2017) remarked on the ability Minecraft had for teachers to encourage struggling learners to participate. Dezuanni and O´Mara (2017) cited the concept of "impassioned learning" that resulted from utilizing Minecraft, a concept sometimes undervalued by school systems but not by teachers. Lincenberg and Eynon (2021) also illuminated how Minecraft would "help educators overcome current limitations of schools as physical spaces that prevent engagement with plurality and otherness" (p. 20). Used optimally, Minecraft was a tool that enhanced the ability of teachers to reach students.

Limitations of Minecraft for Education

Even as an exceptional learning tool, Minecraft did incur limitations to usage in education such as the players who entered with higher abilities not having been challenged enough and who eventually disengaged as well as the raised user anonymity issues of equity. Nebel et al. (2016) asserted that there were player limitations as well especially as skilled players predominantly succeeded over newer players but could also have lost interest or revert to

previously known actions of misbehavior if the flow of the class or lesson seemed contradictory to their individual desires. Ames and Burrell (2017) noticed that African American students felt user skin choices were limited and their online presence did not allow full expression of identity. Even players who had higher skill could have become limiting factors to the use of Minecraft in education by constant use of advantage or disengagement due to lack of regard to the lesson at hand while the invisibility aspect of Minecraft posed equity problems.

Considerations of Antithetical Features

Even as an established educational tool, Minecraft portrayed constructs that could have been considered antithetical to Hawaiian ways of being. Brazelton (2020) equated the survival mode aspects of Minecraft and subsequent resource mining to a Euro-humanist perspective of entitlement and ownership and the colonial fictions of indigeneity. Land, and resource ownership as seen in Minecraft did not align with traditional Hawaiian perspectives of ʻāina (land) as Hawaiians upheld a symbiotic, even familial relationship with the land, choosing to care for and honor ʻāina (land), the older sibling (Kameʻeleihiwa, 1992). Nguyen (2016) contended that the creativity aspects of Minecraft represented "function as a privileged concept that is understood as highly individual rather than social" (p. 472). For Hawaiians, relationships and social learning through others are portrayed as an integral theme within Hawaiian epistemology (Meyer 2001). López López (2019) asserted that the use of Minecraft within Australian classrooms served as a continuance of a colonization mindset and the myth of terra nullis, upholding colonial structures observed within the game as seen by the country's action towards the Indigenous peoples. Dissimilarly to the notion of Minecraft's vast empty spaces, seemingly disconnected to the player, Hawaiians were seen as tied to cosmogonic accounts of land formation and origins (Malo, 1951). There were explicit facets inherent to Minecraft that exhibited opposing ideals to

Hawaiian philosophy. Though antithetical notions in Minecraft exist, they were not a predetermined factor toward learning outcomes but were rather a concept in need of consideration.

Gaps in Minecraft Learning Literature

Areas of research that are still needed regarding Minecraft learning included block innovation; redesigning of schools to have Minecraft learning at the core; professional development that better linked learning taxonomies to educational Minecraft usage; assessment of the impact and effectiveness of using Minecraft to teach Hawaiian knowledge or concepts; and examinations of Minecraft usage among college students. Nebel et al. (2016) suggested that the "use of blocks as spatial functions, as successfully shown within Minecraft, might be even more important and could be expanded further" while also having imagined what

Players could create if they use visually programing within spatially distributable entities, group them, duplicate them, or create new types with functions reacting to various variables, like player position, relation to other blocks or even events outside the game itself. (p. 362)

Research around the expansion and further development of block usage and abilities was one area in need of further study. Callaghan (2016) recommended similar studies be conducted to research "how to provide effective professional development and may involve recognizing and implementing taxonomies of learning" (p. 258). There was need for designing instruction based training linking learning taxonomies to Minecraft usage in education. Though there are documented instances of Minecraft being used in educational situations that embed or teach Hawaiian knowledge or concepts, there were no academic studies found in this area that showed empirical evidence toward Minecraft's impact or effectiveness. As an educator in Hawaiʻi, Ozaki (2018) published a study centered around the use of Minecraft, but no Hawaiian, or Hawaiian

cultural, knowledge was evident in the content utilized. The literature also lacked academic information surrounding the use of Minecraft at the collegiate level. Minecraft academic research for learning is needed to identify further block development and usage; reforming of schools to be better fits for Minecraft; deeper dives regarding professional development coupling Minecraft and learning levels; further insight into using Minecraft for the learning of Hawaiian knowledge; and college level minecraft usage.

Kaikuaʻana and Kaikaina

The literal definition of kaikuaʻana and kaikaina has been denoted in the preceding section as the older and younger sibling, or cousin, of the same gender. To have been diligent, in a Hawaiian worldview, this is clarified to also have included of cousins in the literal definition as described by Handy and Pukuʻi (1998):

A person's first cousin whose related parent is an older brother, sister or cousin of that person is that person's kaikuaʻana, to be addressed formally as kuaʻana; and so on, always, in the collateral relationships, referring back to the original genealogical elder or younger relationship where the genealogy converges to a single parent or two parents. (p. 67)

Thus, the literal delineation of kaikuaʻana and kaikaina extended to cousins based on the genealogical order of the person's predecessor parent. Handy and Pukuʻi (1998) added that the formal terms used to address those that were older and younger would be kuaʻana and kaina and that the age of an individual had no relevance to the relational connection and denotation of position. The following section extended from the established literal definition of these terms into the figurative description and conceptual application.

Additional Examples of Kaikuaʻana and Kaikaina

Though the concept of kaikuaʻana and kaikaina on a foundational, and literal, level was equated to the relationship and behavior between an older and younger sibling, or cousin, of the same gender, a metaphorical and conceptual application was also portrayed through this dynamic based on the cosmogonic relationship of the Hawaiian people to the ʻāina (land) while also having been seen as a proper code of societal behavior that was practiced at all levels. Kameʻeleihiwa (1992) expressed in the metaphor of mālama ʻāina (caring for the land) the idea of reciprocity amongst the older and younger siblings, as well as the relationships and responsibilities associated. This responsibility included that the elder was the provider and protector while the younger was respecting and honoring with both needing to have adhered to a state of pono (harmony, balance, righteousness) within the relationship. Simply put, the relationship norms of kaikuaʻana and kaikaina set up the societal expectations of each individual in their specified roles. Laimana (2011) took the concept a step further and identified aspects of role switching as seen when the aliʻi, historically, took on kaikaina positions in order to learn literacy from others who had already acquired this skill, even accepting young children as their teacher who would have normally been seen as their kaikaina. This ability to switch roles based on allowing the most qualified or skilled to lead when the situation demanded exemplified that Hawaiians were not a feudal society but a people that operated in manner that sought the highest of efficiency in practices rather than pure authority. Kaikuaʻana and kaikaina as a relationship, and governance concept, started as a basic equation of societal norms based on the position of an older and younger sibling and has evolved to an understanding of role switching and shared leadership focused on efficiency.

Chapter 3. Methodology

The purpose of this study was to bring forth and discuss the choices of an instructor to use Minecraft and the perceived affect it had toward the learning of kaikuaʻana and kaikaina concepts by community college students in a Hawaiian governance course. Through an ontology of relativism and a Hawaiian epistemology, combined with a constructivist and interpretivist paradigm, a qualitative, blended narrative inquiry case study set out to better understand the intentions and processes of Kumu Laimana and link those choices and perceptions of learning to insights for future educational practitioners and users of Minecraft as a pedagogical tool. First, the two research paradigms and the blended narrative inquiry case study method have been defined and connected to the researcher's methodological assumptions and process. Next, the data collection methods of instructor interviews, document review of existing educational artifacts, and class observations are showcased. Additionally, contingency planning, sampling, and the processes for data analysis which includes techniques to enhance trustworthiness are described. Finally, facets including ethical considerations, potential data collection limitations, delimitations, and assumptions are presented for consideration.

An Ontology of Relativism and a Hawaiian Epistemology

The researcher aligned closest to an ontology of relativism and reflected a Hawaiian epistemology particularly in the area of relationship and knowledge. Ontology is a reference to how one views reality and perceives that existence (Lochmiller & Lester, 2017). According to Merriam and Tisdell (2016) an ontological stance "entails what one believes about the nature of reality" (p. 8). The researcher's position on what makes up the nature of reality in this particular study laid in the realm of Relativism. Relativism asserts that:

Our beliefs, concepts, or practices cannot be assessed from an impartial, universally

acceptable vantage-point, since they are valid (true, justified, good, etc.) or invalid (false,

unwarranted, bad, etc.) only relative to a particular individual or group of individuals (societies

or even species). (p. 378)

Thus the extent of reality is based on the relative nature of contextual applicability of the

story being told. In addition to an ontology of relativism, the researcher embodied a Hawaiian

epistemology. Epistemology is the understanding of how one might formulate their ways of

knowing and establish their base of knowledge (Lochmiller & Lester, 2017). The nature of a

Hawaiian epistemology which resonated closest with this study was an applicable foundation to

knowledge building particularly in the aspects of relationships. Meyer (2001) proclaimed how

the "maintenance of relationships takes conscious and deliberate thought and action…knowledge

is the by-product of dialogue, or of something exchanged with others" (p.134). Truly the

criticality of relationships as a producer of knowledge within a Hawaiian epistemology was a key

focus within this study. The philosophical assumptions of the researcher were an ontology of

relativism and a Hawaiian epistemology.

Constructivism and Interpretivism as Paradigms of Research

The multiple layers of social roles and relationships within this study, as well as the

context of the course content, were a felicitous match to the paradigms of constructivism and

interpretivism. Constructivism as a theory of learning suggested that individuals' knowledge

bases are built through experience and reflection (Olusegun, 2015). Lochmiller and Lester (2017)

put forward the following:

A constructivist paradigm assumes that there are multiple realities that can be studied and that the researcher derives his or her understanding of these realities by working with and through the participants' perspectives of a given phenomenon or problem of practice. (pp. 48-49)

A constructivist paradigm through an ontology of relativism bequeathed freedom, was flexible in nature and allowed for multiple possibilities and meanings to a particular reality. Congruently, interpretivism is a paradigm that focused on reality being made up of social interactions and factors (Thanh & Thanh, 2015). In this view, interpretivism provided latitude for findings and implications as it considers multiple perspectives and viewpoints. Alharahsheh and Pius (2020) stated that "interpretivism considers differences such as cultures, circumstances, as well as times leading to development of different social realities" (p. 42). Through constructivism and interpretivism a wider range of possibilities were considered especially through the lens of people and the relationships they experience. These research assumptions laid the foundation for a methodological design that focused on perspective while still having considered multiple possibilities that either support or contradict findings.

A Blended Narrative Inquiry Case Study Research Method

From a combined constructivist and interpretivist paradigm with a relativist ontological and Hawaiian epistemological approach, a blended narrative inquiry case study approach was utilized. Narrative inquiry is a research technique that focused on the stories told by individuals to explain how they interacted with the world and others around them (Merriam & Tisdell, 2016). Through a narrative inquiry approach the stories of the Kumu Laimana's intent, processes and experiences were captured and revealed insights experienced through utilizing Minecraft to teach kaikuaʻana and kaikaina concepts. In turn, Lochmiller and Lester (2017) exerted that case study research "focuses on a detailed study of one or more cases within a bounded system" (p.

648-649). In this study, the bounded system was the Hawaiian governance course and the case in examination was Kumu Laimana's choices and use of Minecraft to affect the teaching of kaikua'ana and kaikaina concepts. Additionally, elements of case study included the use of multiple data sources. This method allowed for the use of instructor interviews as well as document review which added to the narrative expressed and thus enriching the stories shared.

These blended research methods suited the study as it captured the nuances and impact within Kumu Laimana's story and journey with Minecraft use. According to Lochmiller and Lester (2017), "stories become the site of the study, with the narrative presumed to include an ordering of events and some kind of attempt to make sense of the meaning of the experienced event(s)" (p. 247). Additional lenses of context and subtext permeated research through a narrative inquiry approach. A main approach to narrative inquiry research is through conducting in-depth interviews (Marshall & Rossman, 2016) though there are other data also considered in narrative research (Lochmiller & Lester, 2017). Case study commonly used direct observations, documents, and physical artifacts as multiple sources of data (Lochmiller & Lester 2017). Narrative inquiry allowed for the illumination of Kumu Laimana's story, the constant, in an iterative learning environment, and provided rich detail and complexities gleaned from transpired events while case study identified the case at hand in the bounded system and allows for an examination of multiple sources of data.

Data Collection

The methods of data collection were in-depth interviews with Kumu Laimana as well as document review of existing educational artifacts. Data were also collected through class observations and used as evidence toward triangulation. The focus of this research portrayed the story of Kumu Laimana's experience through instructor interviews and experiences shared by

students within existing education artifacts while class observations supported and contributed to triangulation of the findings. In this section details are given in the areas of data collection methods, data collection instruments, data processing. Additionally, contingency planning, sampling were clarified. Figure 1 showed a graphic representation of the data collection and triangulation methods.

Figure 1

Data Collection and Triangulation Graphic
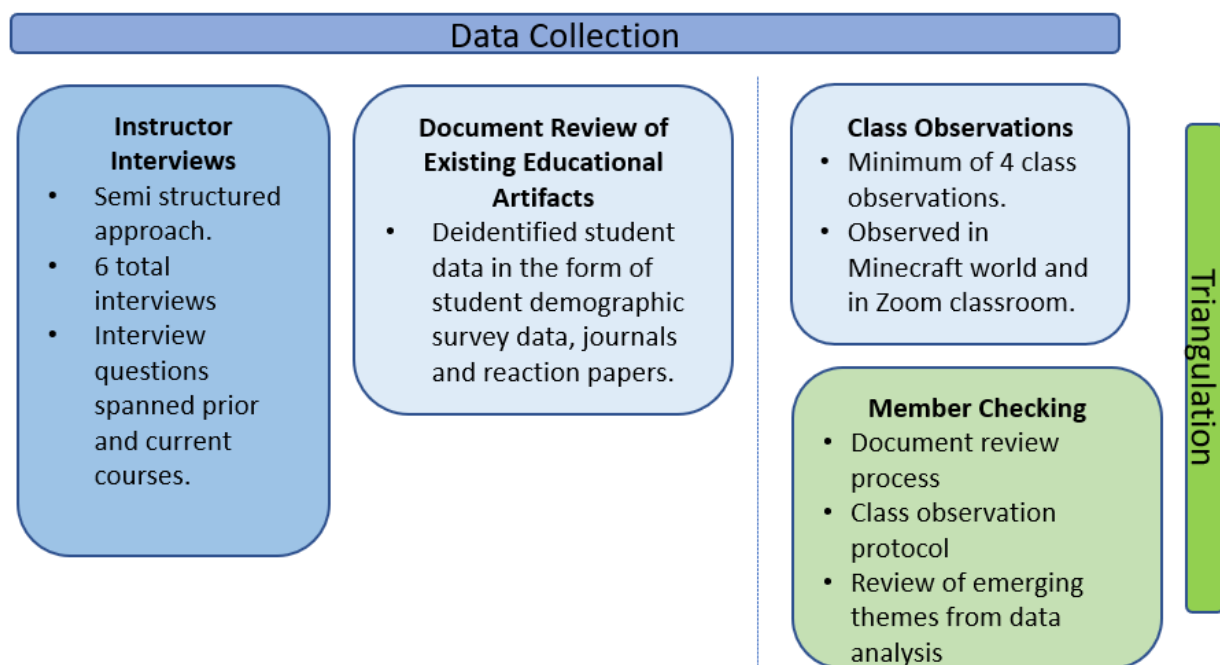
Instructor Interviews (II)

Six semi-structured, online, in-depth interviews were conducted with Kumu Laimana. These semi-structured interviews were guided by preformulated questions which were used flexibly (Merriam & Tisdell, 2016). Probing questions were also used in the semi-structured interviews (Creswell & Creswell, 2017).

Data Collection Methods-II. The steps of the interviews in chronological order were provided here:

1. The researcher ensured that the interview participant completed the appropriate consent form and consented to have audio recorded.

2. The researcher conducted the first set of three interviews with Kumu Laimana prior to the start of the Fall 2022 course.

3. The remaining three interviews with Kumu Laimana were conducted in sequence and occurred simultaneously with the Fall 2022 course.

The purpose of the interviews were to capture data from Kumu Laimana's point of view regarding the overall utilization of Minecraft.

Data Collection Instruments-II. To prepare for data collection the researcher formulated interview questions that were carefully worded and structured in a clear enough manner to gather the necessary information (Merriam & Tisdell, 2016). The researcher utilized peer review and input to revise questions as needed. Questions were connected to and created on the basis of finding information to answer the identified research questions.

Interview questions ranged from demographic and historical inquires toward the Kumu Laimana's background of teaching Minecraft to questions specifically tailored toward experiences of Minecraft usage as well as planning/preparation, debrief/analysis, and reflective questions toward instruction. Sample questions were displayed in Appendix A.

There was a total of 6 interviews with durations that ranged from 30 minutes to over an hour. A formal consent was completed by Kumu Laimana prior to the first interview. Each interview was conducted online via Zoom. A consent form was collected prior to the interviews and was used to show consent of the interviewee. Each interview was voice-recorded with the permission of Kumu Laimana and later transcribed. A sample of the consent used for these interviews was offered in Appendix B.

Data Processing-II. Upon completion of each interview, the researcher organized and stored the audio file and transcript in a secure digital folder. The audio file was downloaded from the Zoom meeting platform and the initial transcript was created using the online, software application Otter.ai. Files were organized and named according to the chronological number of the interview. Each document was formatted into a Microsoft Word file. All transcripts were reviewed while listening to the audio file and adjusted accordingly to ensure accuracy of the transcript. The most common errors experienced were the application's rendering of Hawaiian words. Copies of each document were made and saved at each step of the analysis process which ensured a historical version for review and reference.

Document Review of Existing Educational Artifacts (DR)

A document review of existing educational artifacts was conducted (Marshall & Rossman, 2017).

Data Collection Methods-DR. The following were the steps in chronological order for collecting data in the document review of existing educational artifacts process:

1. Documents from the first two courses were collected (journals, reaction papers and demographic survey assignment results) from Kumu Laimana.

2. The investigator member checked by completing a rater reliability exercise with Kumu Laimana, as part of data analysis, to calibrate the investigator's rating capabilities. He was seen as the subject matter expert when it came to expressed understandings of kaikuaʻana and kaikaina within student writings. The investigator only continued with the document review once a rater reliability percentage of 80 or above was achieved between the identical documents reviewed by both the investigator and Kumu Laimana.

3. Remaining documents generated during the Fall 2022 course were collected (journals, reaction papers and student demographic survey assignment results) from Kumu Laimana once the course was completed.

The types of existing educational artifacts were deidentified student educational data in the form of documents that included student demographic survey assignment results, journals, and final papers. Kumu Laimana first provided documents for review from the first two courses where Minecraft was utilized to teach kaikuaʻana and kaikaina concepts and then from the Fall 2022 course. The student demographic survey assignment results document was a course element added only to the Fall 2022 course, so the information from that assignment was not available from previous semesters. The documents were deidentified by the researcher to have allowed the researcher insight toward connections of the demographic information and the extracted data from the interviews or the document review. All copies of documents received were destroyed once the study was completed.

The source of this document review of existing educational practice data came from the Kumu Laimana. He expressed a willingness to share the existing educational practice artifacts prior to the start of the study and provided a letter expressing that willingness which was located in Appendix C. Subsequently, all documents identified and stated within this section were shared with the researcher.

Data Processing-DR. Once all documents of existing educational artifacts had been collected, the researcher organized and stored said documents in a secured digital folder. Documents were organized and named according to course semester and type of document. Each document was formatted into a Microsoft Word file. Copies of each document were made and saved at each step of the analysis process to ensure a historical version for review and reference.

All copies of documents were destroyed at the end of the study. A random sampling of document types was utilized in this study. This random sampling started with four documents of each type from each semester and continued until saturation of the data was achieved. Saturation in this case is described as a point where codes started to repeat with no new codes having been emerged.

Class Observations (CO)

Online class observations of the HWST 245 class sessions were conducted. According to Merriam and Tisdell (2016), an observer has been given the opportunity to capture nuances that may be commonplace to those being observed allowing for deeper insight and situation relevance while adding another piece to the triangulation puzzle.

Data Collection Methods-CO. Here are the steps, in a chronological order, that were followed for Class Observations:

1. In preparation for the class observations, the researcher member checked with the Kumu Laimana by calibrating and confirming that the compiled observation protocol and look-fors, were accurate according to his subject matter expertise.

2. The researcher conducted a pilot observation during the first Minecraft class gameplay session. Notes made during this session were only used for the purpose of note taking and observation training.

3. After the first class observation, the researcher reconfigured and adjusted the look-fors and protocol based on field notes and a member check in with Kumu Laimana.

4. The researcher continued to conduct the remaining observations, inventoried look-fors, collect field notes and reviewed the data collected.

A total of five class sessions, not including the pilot session and each being approximately one and a half hours long and having students utilizing Minecraft to explore kaikuaʻana and kaikaina concepts, were observed. In each observation, the researcher only observed and had no communication with Kumu Laimana or the students. Kumu informed the students that there was a researcher observing the class as part of the researcher's doctoral study but the name of the researcher and the relationship of the researcher to Kumu Laimana was not discussed. This was to prevent any bias that might have occurred on behalf of the students. The researcher had not attached any specific names or identifiers to notes that were collected. The researcher resided in two online classroom environments, first within the game of Minecraft and second within the class Zoom room. Within the Zoom room, the researcher listened for auditory and visual examples of kaikuaʻana and kaikaina interactions. Within the game of Minecraft, the researcher visually observed students as they worked on tasks, activities, and games. In the game of Minecraft the researcher was placed in creative mode, having access to all available resources and was not subject to attack damage, and mostly operated from a flying vantage point.

In preparation for this method of data collection the researcher compiled a set of observation protocols along with a note-taking protocol. The researcher also trained through a pilot observation of Minecraft play in an effort to increase focus, take copious and detailed field notes, distinguish careful specifics of the experience, and utilize prepared systematic elements (Merriam & Tisdell, 2016). Training was completed through observing game play in the first class with Minecraft gameplay.

Data Collection Instrument-CO. The protocol for note-taking during observations was typed field notes (Merriam and & Tisdell, 2016) onto a preset note-taking protocol sheet to collect raw data from the observation experience. This included but was not limited to detailed

descriptions of participants (except for names),their environment, instructor's and students'

tendencies, online environmental noticing, researcher's comments, and quotes. The list of look-

fors to observe was preset on the sheet and a simple mark indicated the number of times a look-

for occurred. One example of a completed observation protocol was shared in Appendix D.

The list of look-fors provided focus to the observation with an acknowledgement that the

list might have changed from one observation to the next. These were not the only examples of

potential learning of kaikua'ana and kaikaina but rather a starting point of learning examples.

The look-fors were: asking for help (student to student), giving help/teaching (student to

student), accepting help/learning (student to student), having concern for others, stepping into a

seemingly different role (kaikua'ana to kaikaina and vice versa).

Data Processing-CO. After each class observation, the researcher organized and stored

said documents in a secure digital folder. Documents were organized and named according to the

number of observation. Each document was formatted into a Microsoft Word file, if not already

prepared in the format. Any handwritten field notes were typed shortly after the observation.

Copies of the document were made and saved at each subsequent step of the analysis process to

ensure a historical version for review and reference.

Contingency Planning

Since there were multiple elements to the data collection methods within this study there

was some likelihood of part(s) not panning out. Since this case study is built on narrative inquiry,

the instructor interviews provided the most crucial portion of the data collected while the

documents review of existing education artifacts provided additional and comparable pieces of

data. The class observations were used as a reference point to check for validation and to

enhance the trustworthiness of the data. If the instructor interviews had not panned out for

whatever reason, the researcher would have considered potentially redesigning the research method away from a narrative inquiry and aligning to only case study. In that scenario, the secondary pieces of data, mainly the document review and class observation, would have become primary and other data sources or analysis techniques would have been added to provide triangulation. The researcher did not have a need to reconsider and re-evaluate the methods of research because there was no inclination of a method approaching non-completion during the study.

Sampling

The sampling within this study was the one instructor, Kumu Laimana, of a HWST 245 course. Though the n is only one, there was a total of six interviews conducted, over 100 pages of documents of existing educational artifacts that represented over 30 students, and observations that included a class population of 12 students and one teacher. It should also be noted that the sampling of class observations included a total of five class sessions observed out of a total of 10 class sessions where students engaged in Minecraft gameplay.

Data Analysis

Data analysis included the development of themes through analysis based on coding of collected data, categorization of data and validation through triangulation techniques.

Thematic Analysis

Saldaña (2016) recommended that in qualitative analysis, data are codified (derived either inductively or deductively), categorized, and then grouped into themes in order to produce abstract assertions or theories. The process of thematic analysis was the main approach for analyzing data in this study. Inductive coding and thematic analysis were utilized in this study.

Jottings

According to Miles et al. (2020), "A jotting holds the researcher's fleeting and emergent reflections and commentary on issues that emerge during field work and especially data analysis" (p. 86). The researcher initially read and reviewed interview transcripts and existing educational artifacts texts and then applied jottings, both general in nature, and specific to inquiry, items expected, items not expected, and items that stood out. Jottings were also utilized as a technique in regard to class observations field notes. These jottings were revisited and referenced regularly throughout the analysis process.

First Cycle Coding

Miles et al. (2020, p.79) state that "first cycle coding is a way to initially summarize segments of data." A combination of in vivo, process, and concept coding techniques were used inductively to analyze and ultimately initially summarize interview responses and existing educational artifacts within interviews and in the document review process. In vivo coding utilized was of a particular word or statement, found in the data set, coded verbatim (Saldaña, 2016). Process coding specifically incorporated the use of gerunds to denote action expressed in the data while concept coding sought to illustrate the main idea being represented within the data set (Miles et al., 2020).

Second Cycle Pattern Coding

In keeping with the expressions of Miles et al. (2020, p.79), "Pattern coding, as a Second Cycle method is a way of grouping those summaries into a smaller number of *categories*, *themes*, or *concepts*." Initial codes from first cycle coding were combined and then processed into groups based on patterns such as categories of themes, causes or explanations, relationships among people, or concepts or theoretical constructs (Miles et al., 2020). After configurations and

reconfigurations, the researcher attempted to label or name the group. These labels or names eventually transferred into themes and sub themes. The researcher approached this process with great flexibility and continually referred back to the data to verify or adjust pattern codes as needed.

Techniques to Enhance Trustworthiness

Validation through Triangulation. Triangulation was the process of utilizing multiple data points or sources in order to achieve a particular research goal similar to navigating a ship and utilizing multiple, at least two, points of reference. Lochmiller and Lester (2017) state that triangulation of data occurred through use of multiple data sources which can add credibility and validity to a qualitative study. For data to be considered triangulated there needs to be at least two methods of assessing in order to land on a solid idea (Merriam & Tisdell, 2016). This study addressed triangulation by first drawing from multiple sources of data, particularly instructor interviews and documents review of existing educational artifacts. While class observations field notes and member checking were additional points used for triangulation and ultimately to support findings within the analysis process. By utilizing these various forms of data collection and analysis of the data, trustworthiness and validity were increased.

Interrater Reliability. In terms of studying existing educational artifacts within the documents review, the researcher implored additional steps to ensure that the interpretation of data rang true to Kumu Laimana's perspective as the subject matter expert. For document review of existing educational practice, first the researcher and Kumu Laimana engaged in an exercise of highlighting pertinent examples of student work and learning. Both read, reviewed, and highlighted examples of learning kaikuaʻana and kaikaina concepts in Minecraft from the same document of student writing. Then the researcher compared the highlighted data and calibrated

his ratings by repeating the exercise if necessary with another student example, until the researcher located at least 80% percent of examples found by Kumu Laimana.

Member Checking. For subject matter expert affirmation the researcher conducted member checking by sharing second cycle pattern coding as well as generated themes and sub themes from both the instructor interviews and the documents review of existing educational artifacts with Kumu Laimana to validate analysis (Merriam & Tisdell, 2016). The use of Kumu Laimana's subject matter expertise toward class observation protocol building and rater-reliability exercises were also considered to be member checking in the overall picture of data collection and analysis. If there was misalignment in the analysis, then the researcher discussed the matter with Kumu Laimana and reshared analysis after any necessary adjustment were made.

Observation Field Notes. Class observation field notes were used as another point of reference to check and validate themes and general findings from first and second cycle coding of the instructor interviews and the documents review of existing educational practice. Data gathered through observations were primarily used to triangulate and support findings.

Ethical Considerations

There have been many accounts of research subject mistreatment and thus a need to care for the rights and well-being of all participants was crucial in this study (Jones, 1993). The researcher did consider the likelihood of liability involved for the participants. Resulting from a submitted application, the Institute Review Board within the Office of Research Compliance at the University of Hawai'i at Mānoa deemed this study as exempt from federal regulations pertaining to the protection of human research participants and has issued a notice of approval for human research. The application submitted included specific details of the research methods

and precautions that would be taken to ensure participant safety. Below is an example of a crucial precautions presented within the IRB application:

- Confidentiality: The study did not connect verbatim data with any individual involved unless permission was secured. For all student work, only deidentified data were utilized and no data were connected to any individual student. This included information that could potentially be linked to specific individuals either directly or indirectly through coding systems. No student names were used in any formal writing and all deidentified documents that were shared with the researcher were destroyed after use. With permission, the instructor involved was mentioned by name.

This study's articulated data collection methods, which included the interview protocol, transcriptions process, and security of data, was deemed, through IRB review, to have minimal liability to participants and that the data collection methods seen as satisfactory toward producing valid, reliable, and trustworthy responses and data.

Potential Data Collection Limitations

The main potential data collection limitations to this study were any class cancellations (due to a lack of registrations), the close relationship of the researcher to Kumu Laimana, and method-specific elemental limitations. If there was a class cancellation, Kumu Laimana could have still been interviewed regarding the use of Minecraft in previous semesters and a document review of those courses' student journals and final papers would have produced findings in this narrative inquiry case study approach.

Each of the research methods followed also had limitations. Interviews might have been of poor quality depending on the interviewer's ability to prepare and conduct. Observations could have been unreliable if the observer was lacking in ability, leading to bias, unreliable

notes, and distortion of actual occurrences. Document review could have yielded unusable data in that the documents may not have revealed enough information or may also have revealed too much information leading to excessive amounts of time being devoted to analysis. For interviews, the researcher prepared the interview questions through extensive feedback loops which provided ample training and preparation in asking questions and being familiar with the interview content and process. For observations, the researcher trained in observation techniques and nuances of established protocols to accurately reflect the class session experiences. For documents review, the researcher gauged the length of documents and planned accordingly for an excessive amount of content in documents which lead to selecting a random sampling as a way to minimized repetitive information.

Delimitations

The nature of a delimitation in this research was the decisions made, by the researcher, to delineate parameters of study. For this case study, the researcher chose to focus on the narrative and learnings of Kumu Laimana as well as examples of existing educational practice shared. The main reason for this choice was to allow an illumination of the reflections and the nature of the individual making the educational choices to incorporate a technological medium over an extended period of time and through multiple iterations of usage. The reflection, learning, experimentation, growth, and insights were the intended pursuit. This study was not intended to focus on statistically proving whether the implemented technological platform made a difference or showed a specific success rate. Nor was it to intended to capture a wide amount of data, for example from student surveys or observers, to increase the technology medium's perceived validity. The pursuit was meant to provide insight into an individual's journey or experience and

discovery, based on that individuals perceptions of achievement, and thus provided a roadmap for others wanting to tread a similar path.

Assumptions

Being that this study centered on the story of Kumu Laimana, one main assumption within this study was that he held pedogeological prowess to determine achievement, or the lack thereof, of kaikuaʻana and kaikaina concepts learning outcomes achieved through Minecraft. Another assumption was that Kumu Laimana possessed subject matter expertise toward the content and instruction of kaikuaʻana and kaikaina concepts. Being that he had taught the course four times previously, three with the use of Minecraft, and also that he was a seasoned teacher at the collegiate level and had researched and wrote on the topic of kaikuaʻana and kaikaina, it was safe for the researcher to conduct research with these assumptions.

Summary

In summary, the researcher conducted a narrative inquiry case study to examine the journey of an instructor utilizing Minecraft to teach kaikuaʻana and kaikaina concepts to college students. Data were collected through interviews, document review of existing educational practice and class observations. Thematic analysis was conducted through first and second cycle pattern coding. Techniques of enhancing trustworthiness of the data were observed and included triangulation, interrater reliability, member checking and reviewing of observation field notes.

Chapter 4. Findings

Summary of Purpose and Research Questions

The purpose of this study was to explore how the choices of an instructor to use Minecraft affected the learning of kaikua'ana and kaikaina concepts by community college students in a Hawaiian governance course. Research was anchored to four research questions "how did the choices of the instructor of a Hawaiian governance course to use Minecraft affect the learning of kaikua'ana and kaikaina concepts among community college students?", "why was Minecraft chosen as a tool to teach kaikua'ana and kaikaina concepts?", "what were the highlights and challenges in preparing for and using Minecraft to teach kaikua'ana and kaikaina concepts?", and "what were the positive or negative takeaways from the use of Minecraft to teach the learning of kaikua'ana and kaikaina among the community college students?" The first research question focused on examining choices Kumu Laimana made in relation to the use of Minecraft and the perceived effect it might have had on student learning, while the aforementioned sub-questions focused on examining concept areas such as rationale/decision making, planning/iterative process and experiential takeaways.

Summary of Methodology

This study utilized three types of data collection methods: instructor interviews, documents review of existing educational practice, and class observations. A total of six semi-structured interviews were conducted with questions tailored to extract data pertaining to the main research question and the additional sub-research questions. Over 100 pages of existing education artifacts specific to student demographic survey data, journals, and reaction papers from over 30 students were collected for review. The researcher also conducted five class

observations, after an initial pilot training observation, to inventory instances of kaikuaʻana and kaikaina behavioral examples and compiled field notes and jottings of the class session.

Narrative Description of the Coding Used

The instructor interview transcripts and a sampling of existing educational artifacts text from the document review were analyzed using first and second cycle coding to distill emerging themes pertinent to the research questions mentioned earlier. Prior to first cycle coding, transcripts and texts were read, reviewed, and connected to researcher jottings. First cycle coding included in vivo, process, and concept coding rounds. Second cycle pattern coding grouped initial codes and ended with allocation to themes, some of which were gathered from analytic memos. The general methodological approach taken in this study can be seen in Table 1.

Table 1

General Methodological Approach: Narrative Inquiry Case Study

Research Question	Qualitative Data	Analysis Approach
How do the choices of the instructor of a Hawaiian governance course to use Minecraft affect the learning of kaikuaʻana and kaikaina concepts among community college students?	Instructor Interviews (Merriam & Tisdell, 2016) Document Review of Existing Educational Artifacts-Journals & Final Papers (Marshall & Rossman, 2016)	In Vivo Coding (Saldaña, 2016) Process & Concept Coding (Miles et al., 2020) Thematic Analysis Confirmation through Member Checking and Class Observation Field Notes
Why was Minecraft chosen as a tool to teach kaikuaʻana and kaikaina concepts?	Instructor Interviews (Merriam & Tisdell, 2016)	In Vivo Coding (Saldaña, 2016) Process & Concept Coding (Miles et al., 2020) Thematic Analysis
What were the highlights and challenges in preparing for and using Minecraft to teach kaikuaʻana and kaikaina concepts?	Instructor Interviews (Merriam & Tisdell, 2016) Document Review of Existing Educational Artifacts-Journals & Final Papers (Marshall & Rossman, 2016)	In Vivo Coding (Saldaña, 2016) Process & Concept Coding (Miles et al., 2020) Thematic Analysis
What are the positive or negative takeaways from	Instructor Interviews (Merriam & Tisdell, 2016)	In Vivo Coding (Saldaña, 2016)

Table 1 (continued)

General Methodological Approach: Narrative Inquiry Case Study

Research Question	Qualitative Data	Analysis Approach
the use of Minecraft to teach the learning of kaikuaʻana and kaikaina among community college students?	Document Review of Existing Educational Artifacts- Journals & Final Papers (Marshall & Rossman, 2016)	Process & Concept Coding (Miles et al., 2020) Thematic Analysis Confirmation through Member Checking and Class Observation Field Notes

Narrative Description of Participants

The individual who provided the focal narrative and access to past student documents for review was Kumu Laimana, instructor of the HWST 298/245 course entitled *Living with Kuleana: Hawaiian Systems of Governance*. As the sole participant, Kumu Laimana, a 69-year-old Native Hawaiian male, was an instructor at Leeward Community College. In this study Kumu Laimana, was also referred to as kumu and is referenced as the instructor or teacher of the course. Kumu Laimana taught at the collegiate level for over six years. The other course he had taught included the HWST 107 course entitled *Hawaiʻi: Center of the Pacific*. Kumu had taught over approximately 1300 students in his tenure at Leeward Community College. Over the course of this study Kumu Laimana participated in six interviews, shared artifacts of existing educational practice (student journals, final papers, and demographic survey data) for document review, allowed permission for the researcher to observe live class sessions, and engaged in rater-reliability and member checking exercises.

The video game experience levels of students enrolled within the Fall 2022 course is showcased in Table 2. Kumu Laimana used a first-time survey to capture this information during the Fall 2022 course and was obtained through the document review process.

Table 2

Video Game Experience of Fall 2022 Class

Experience Level	Frequency	Cumulative Percent
Newbie (no experience)	2	100%
Novice (some experience)	9	83%
Gamer (experienced)	0	8%
Pro (expert experience)	1	8%

Research Question #1-Instructor Choices and Course Outcomes

How did the choices of the instructor of a Hawaiian governance course to use Minecraft affect the learning of kaikuaʻana and kaikaina concepts among community college students?

This research question focused on the examination of Kumu Laimana's choices and the resulting course outcomes as identified by Kumu Laimana and reflected through student expressions in course assignments such as journals and final papers.

Synopsis of First and Second Cycle Coding Connected to Instructor Choices and Course Outcomes

Data were gathered through first and second cycle coding connected to context of the first research question and the topic of instructor choices and course outcomes. The collected information was derived from instructor interviews and document review of existing educational practice. More specifically, data from interviews #1, #2, #4, #5 and #6 as well as student journals and final papers were drawn upon to determine findings. Transcripts and documents were read multiple times and jottings were collected to denote aspects that seemed to be expected, be unexpected or stand out to the researcher. Then a round of In Vivo coding was conducted followed by a round of process coding and lastly concept coding. Analytic memos were

developed at various stages within this process. Using the collected codes from first cycle coding the researcher then engaged in the process of second cycle pattern coding which included the organizing and grouping of codes based on patterns recognized. Finally, themes were formulated to describe the groups of code. Second cycle pattern coding entailed some reorganization and referencing of analytic memos. New analytic memos were developed as needed. Subsequent themes expressed the collective meaning or category of each group of codes. Themes and sub-themes were then triangulated with class observation notes and member checking with Kumu Laimana. An example of the full collection of first cycle code and resulting second cycle pattern codes, themes, can be seen in Appendix E.

Four Themes Connected to Instructor Choices and Course Outcomes

The four themes identified were *Varying Student Skill Levels, Design of Instruction Components, Minecraft Experiences,* and *Support*. Additionally, several sub themes emerged in three theme areas.

The theme of Design of Instruction Components possessed six sub themes: Content Prior to Minecraft Sessions, Purpose of Minecraft Exercise, Indicators of Learning, Levels of Learning, Learning Progression, Cognizance for Pivoting. There were also six sub themes identified in the theme of Minecraft Experiences which include Role and Role Switching Experiences, Older Generational Student Experiences, Minecraft Gameplay and Challenges, Achieving as a Group, Observing Learning, and Shared Student Experiences. Lastly, the theme of Support held two sub themes: Support for Students and Support for Instructor.

Varying Student Skill Levels

The findings illustrated that students entered the course at various levels of skill within the video game Minecraft. Kumu Laimana shared that in one group, " ... two were pretty good at

Minecraft already…two more who were somewhat good with Minecraft, the rest were pretty newbies." High, medium, and low skill levels among students in the course were observed by Kumu Laimana. In another group one student wrote, "We had one member who clearly would be defined as the leader since he has had experience with the game. Then next two others who were a little quieter but were great team players ... " Students seemed aware of skill level delineations among team members. The analytic memo, shown in Table 3, displays a part of the researcher's process in identifying the emerging theme of Varying Student Skill Levels and early ideas of possible implications.

Table 3

Analytic Memo-Emerging Theme: "Varying Student Skill Levels"

Emerging Theme: "Varying Student Skill Levels"
The following are excerpts from the raw data:
"You had maybe three students, or about three students, two who were pretty good at Minecraft already and maybe a couple, two, or two more out of students, right? Two more who were somewhat good with Minecraft, The rest were pretty newbies, right? Had either very little experience, either they knew somebody who played the game, they watched their kids play the game, and then I had a few absolutely never saw the game before." (Online: Interview #1)
"We had one member who clearly would be defined as the leader since he has had experience with the game. Then next two others who were a little quieter but were great team players, and another person who I really clashed with. As for me I was the person who would remain silent for the most part and then follow along with everyone else." (Document Review: Student Final Papers-Spring 2022)
Researcher's Memo:
These excerpts come from the initial instructor interview and from a review of the student final papers, specifically from the spring 2022 semester. This interview was the first semi-structured interview with Kumu Laimana and it occurred online through Zoom. Kumu Laimana, who is the instructor of the course and who chose to use Minecraft to help teach kaikuaʻana kaikaina concepts was very forthcoming with his reasons and process for initially choosing to use the popular game platform in his college level course. The final papers reviewed were an assignment of the course. A random sampling of these documents was utilized
Based on Kumu Laimana's response it appears that a noticing of differing initial Minecraft skill levels is observed. From the student final paper excerpt it also appears that students easily recognize the different levels of Minecraft experience among their groups and thus a theme of "varying student skill levels" became prominent.

Table 3 (continued)

Analytic Memo-Emerging Theme: "Varying Student Skill Levels"

Emerging Theme: "Varying Student Skill Levels"
Perhaps the recognition of varying student skill levels has an effect on how Kumu Laimana proceeded in his decision making of groupings or group alterations, course adjustments, or in the development of team/individual challenges or tasks. This also may suggest that students will naturally create a hierarchy within their group and role positions will initially happen based on initial skill sets. This may also have an effect on the engagement/effort exhibited by students who may enter at a lower skill level.

Design of Instruction

The information gathered suggested a theme of Design of Instruction. Within this theme six sub themes were identified which include Content Prior to Minecraft Sessions, Purpose of Minecraft Exercise, Indicators of Learning, Levels of Learning, Learning Progression, and Cognizance for Pivoting. The sub themes identified make up Kumu Laimana's choices regarding design for instruction within not only the learning activities within Minecraft course sessions but also the course design of additional content delivery prior to Minecraft gameplay. Excerpt samples from interview transcripts, connected to applicable themes within the major theme of Design of Instruction, are shown as part of the meta-matrix, an overall chart that portrays multiple descriptive data instances into an cohesive arrangement (Miles et al., 2020), in Table 4.

Table 4

Excerpts from Interview Transcripts of Design of Instruction

Excerpts from Transcripts	Emerging Sub Theme	Main Theme
"…already prepared them about kaikuaʻana kaikaina…"	Content Prior to Minecraft Sessions	Design of Instruction
"…switch roles…a junior to them or kaikaina to them…"		
"…get group efficiency up high…exercise kaikuaʻana kaikaina protocols…" "…overcome…"	Purpose of Minecraft Exercise	

Table 4 (continued)

Excerpts from Interview Transcripts of Design of Instruction

Excerpts from Transcripts	Emerging Sub Theme	Main Theme
"…authentic, engaging communication…"	Indicators of Learning	
"…having fun…"		
"…have a high level of achievement but then again every group is different…"		
"…first level…"	Levels of Learning	
"…contribute in the smallest way…"		
"…the best they could with their group…"		
"…start to internalize the experience…"	Learning Progression	
"…trust level that has to be built up…"		
"…where they have achieved the goal, but did not communicate to each other in any way, that I could see, that kaikuaʻana kaikaina existed, and I would be concerned…"	Cognizance for Pivoting	

Content Prior to Minecraft Sessions. Data indicated that Kumu Laimana intended to have the delivery of kaikuaʻana and kaikaina concepts and behavioral content happen prior to students engaging in exercises within the Minecraft platform. Through interviews it was stated that he:

> …already prepared them about kaikuaʻana kaikaina so they understood that and so as one student mentioned at the end of the class in her reflection was had we not learned that, we probably would not have been successful in the project.

Students confirmed having an understanding of kaikuaʻana and kaikaina content prior to the Minecraft project. Furthermore, Kumu Laimana continually spoke to concepts that students

displayed while playing Minecraft such as role-switching. One example he shared in an interview described that:

> …a person who can switch roles really easily and allow someone who was a junior to them or kaikaina to them to at least lead, even if temporarily, because they are the best ones allows a group to reach its fullest potential.

The role switch of a junior student who becomes a leader based on gameplay skill is consistent with interviews as well as documents review which showed that an understanding of roles were typical among students prior to Minecraft gameplay.

Purpose of Minecraft Exercise. Part of the thinking regarding Kumu Laimana's purpose or intentions of using Minecraft also appeared in the findings. He expressed that the "…purpose of this exercise was to get group efficiency up high to do that they needed to exercise kaikua'ana kaikaina protocols …". Working as an optimal group and utilizing the learned kaikua'ana and kaikaina concepts are illustrated as a priority intention. Another sentiment shared by Kumu Laimana was that "…there's more appreciation when you overcome something, right, when you learn something you work through…". Thus working together through challenges and obstacles stood out as another key purpose for Minecraft use.

Indicators of Learning. There were several indicators of learning used. One example from Kumu Laimana communicated that:

> …the criteria was always, is, that I'm looking for, and when you say learning occurred, yeah, my signal for learning evidence for learning occurred, the communication, are they communicating. And it's not just polite communication, right? It's real, authentic, engaging communication, where they go help, I need help. Okay. And then later on

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you're oh thanks, right? There's appreciation, there's normal engagement that you would

find among friends.

In other words, authentic communication, similar to that seen among friends, was an indicator of

learning as identified by Kumu Laimana. Additionally, he expressed that "…if they are not

having fun, then I would suspect that they are not implementing the protocols of kaikuaʻana

kaikaina." Thus observing students having fun in the Minecraft experience was another way that

Kumu Laimana gauged learning among the students involved. He also mentioned that "if they

are doing it right, they should have a high level of achievement but then again every group is

different and every group will have potentials of how high they can go depending on their skill

level." Though high achievement was an indicator for him, the level of achievement was also

based on the capacity level of the group involved.

Levels of Learning. The conceptual idea of multiple levels of learning existing in the

course's use of Minecraft was also uncovered. Kumu Laimana recalled:

> …the leader who came back to get the straggler that was reassuring, then seeing others
>
> who were, you know, helping out the leader, so wasn't only, when the leader wasn't there,
>
> others took the place and helped out those who are straggling in their, in the quest to get
>
> to certain beacons. right? That's, that's warm. That's a kind of like, okay, good, that's
>
> happening. but that's still first level, right?

Helping was seen as a basic level of kaikuaʻana and kaikaina behavior and indicated other levels

of behavior. He also mentioned through the interview an example where students expressed:

> Oh, I got some food, I'll share it with you, you know, and so they would give them the
>
> food or stuff that they needed. So, you know, those, and usually were, some of those who
>
> didn't have the most skill of building, so they collected it, and then that was kind of their

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contribution. right? That they felt, because if they could not contribute, I think that would

also be a problem, right, of inferiority, right, kind of thing. If it's not handled well. And

that becomes another problem. But even if they can contribute in the smallest way, that

makes everybody feel like they're part of the team kind of thing.

As explained by Kumu Laimana, the differentiating level here pertains to the ability of a player

and how that ability might be perceived both individually and collectively in a team situation. He

added in an interview:

…my definition of successful is that they liked each other, that they had rapport, that they

had appreciation and not whether they won or, or who did what. But they did, in their

mind, the best they could with their group.

Kumu Laimana clarified that level of achievement or learning could be varied and coupled with

the ability of the group.

Learning Progression. An understanding of learning involving progression emerged in

the interview data analyzed. Kumu Laimana stated:

…there was definitely a progression. You know, I don't expect much at the beginning

journals. In fact, I expect to see more frustration more mechanical, reporting, you know,

just reporting what they did kind of thing. But then as we got closer towards the end,

there, you can see the reflection, right, you can see how they start to internalize the

experience, internalize what they've learned and are actually engaged in changing

behavior, right, their behavior. I think that's one of the indicators. I mean, one of the

things you don't want to see is when they want to change other people's behavior. right?

If i see that that's kind of a red flag, right, that means they're not there yet. but when it

starts turning in and inward, and they start seeing their, their flaws, right? Or just, how

they could have been better, then then that definitely learning taking place."

Learning was not expected during the early stages of Minecraft gameplay and rather expected

later in the experience. He expounded that:

…there has to be a trust level that has to be built up. and that's why I think, you know,

that trust level as they started understanding the material purpose of the course and

reading all those articles, that trust level started to build up to the point where, okay, they

knew they're struggling and, you know, this is like you guys need to talk again, because

I'm sure I've told them that before, but because it was at a crucial point. Where, okay,

I'm willing to humble myself in their minds right, and take this leap.

Trust regarding the course material built over time, and instructor facilitation, was regarded as

essential. Kumu Laimana seemed to have understood that students needed time and opportunities

for progression to appropriately achieve the learning of kaikuaʻana and kaikaina understanding

through Minecraft.

Cognizance for Pivoting. Awareness was apparent in Kumu Laimana's discussion of

needing to pivot for specific scenarios. Kumu Laimana explained in the interview:

…the other one, where they have achieved the goal, but did not communicate to each

other in any way, that I could see, that kaikuaʻana kaikaina existed, and I would be

concerned. right? Because either they all were good, so they didn't have to talk to each

other, which misses the point. And my solution to that is create an even greater challenge,

right, that goes and exceeds their ability, individual abilities, so that now they have to

depend upon each other and work together.

This example demonstrated that Kumu Laimana realized that for certain situations, redirection would be required.

Minecraft Experiences

The data gathered through the instructor interviews and document review comprised the theme of *Minecraft Experiences*. Within this theme six sub themes were identified which include *Role and Role Switching Experiences, Older Generational Student Experiences, Minecraft Gameplay and Challenges, Achieving as a Group, Observing Learning,* and *Shared Student Experiences.* The sub themes identified were generated based on the pattern coding exercises developed. Examples of excerpts and resulting sub themes under the main them of *Minecraft Experiences* are shown in the meta-matrix in Table 5.

Table 5

Excerpts from Transcripts as Minecraft Experiences

Excerpts from Transcripts	Emerging Sub Theme	Main Theme
"…the challenge was taking the lead…"	Role and Role Switching Experiences	Minecraft Experiences
"…kaikua'ana normally, now I'm a kaikaina…"		
"…relationships when the roles are reversed…"		
"…more resistant they weren't too accepting the game…"	Older Generational Student Experiences	
"…put minimum time…"		
"…groups struggle, because they're all learning…"	Minecraft Gameplay and Challenges	
"…easier when you can cooperate in a group…"		
"…group can only move forward as fast as the slowest member…"	Achieving as a Group	
"…I can actually see it…I can see them in action."	Observing Learning	
"…you won't find out until you have actual discussions,		

Table 5 (continued)

Excerpts from Transcripts as Minecraft Experiences

Excerpts from Transcripts	Emerging Sub Theme	Main Theme
or it appears in their writings…"		
"…lesson of kaikuaʻana- kaikaina that can be applied to life…"	Shared Student Experiences	
"…I feel like testing out the kaikuaʻana and kaikaina relationship on this platform was a success."		
"…it gives people opportunities to do more for others with little risk."		

Role and Role Switching Experiences. A common element throughout interview and document review data regarding Minecraft experiences was the concept of kaikuaʻana and kaikaina roles and switching between each. Kumu Laimana described that:

> …one was very familiar with Minecraft, and he sort of became the leader. And at the same time, he was the youngest of all of our students. But he was really respectful and actually very quiet. so for him, the challenge was taking the lead, right? He wasn't pushy or forceful in any of that respect, but then he had to lead. And he did it, I think, you know, in the, following kaikuaʻana kaikaina protocol, by, you know, just helping, helping his team, especially the ones who were struggling, like they would be falling behind. He would make sure that they were there, and they were so appreciative that he took that time, while other students were probably getting impatient with those who couldn't match, couldn't do the simple mechanics of the game. His leadership was pretty good.

One example of role switching pertained to those who might normally be considered kaikaina due to their age stepping into the role of kaikuaʻana in Minecraft because of their game expertise. He continued stating:

…I think they have the theoretical knowledge, right, the learning knowledge. And

therefore when I say learning, but they understand how it's supposed to work, and they

agree with it. What they're finding in minecraft is the application of it in real time, so yes,

I'm a kaikuaʻana normally, now I'm a kaikaina, they're dealing with the difficulty of that.

Minecraft allowed students to learn experience the theoretical knowledge and challenges of role

switching in real time. Within a piece of student writing, one student rendered:

…I learned the importance of communication and making decisions during this game. I

thought about the relationships when the roles are reversed. When age isn't the eldest, but

knowledge may come before. I am in no way an expert at this game, but I do have the

basics of the game down.

Students acknowledged the insights gained from role switching experiences within Minecraft

gameplay.

Older Generational Student Experiences. The experiences of older generational

students rose up. Insight from Kumu Laimana included:

…so, older they were the more resistant they weren't too accepting the game. And

therefore the more resistant they were to spend time and learn the game. But as the

challenges became more and more focused and critical, then they realized that strategy,

and a lot of them employed the strategy, don't ask any questions, just wait till, you know,

after, then they can ask somebody else. And they realized that that strategy wasn't going

to work anymore. And so then they finally started asking each other for help. And when

they got it, I think they learned that, wow that was so easy, just asked him, got the thing

and I didn't have to wait till after class, right? And got it done.

Older generational students were seen as resistant early on in Minecraft play and slow to ask for help within groups. Kumu Laimana added, "…until they realize that they're kaikaina and they have a responsibility, and they start putting in the time, they actually put minimum time …" These mentioned older generational students were observed by Kumu Laimana to not fully engage until they accepted their role in the experience.

Minecraft Gameplay and Challenges. One pattern among first cycle codes within the theme of Minecraft experiences aligned to the actual gameplay and challenges experienced in Minecraft. Kumu Laimana denoted, "…through the first part, some groups struggle, because they're all learning and that's expected." Experience early on with low Minecraft skill individuals resulted in struggles among groups. He expounded in an interview response that:

> …it's really, an interesting dynamic, because it goes against the dynamic of this or against the thinking of independence, right? Be your own boss, pull up yourself by your bootstraps kind of thing. You don't need to depend on any other. But, you know, you can do that, but you know, as I say, no man is an island. And for sure, it's a lot easier when you can cooperate in a group, but we have this fierce ideology, especially among the older classmates with just being independent. That prevents him from asking simple questions of the group and help.

He noted that entering the game with an individualistic mindset limited game advancement especially advancement as a team.

Achieving as a Group. Minecraft success within the course was tied to teamwork. Perceptions of Kumu Laimana revealed,

> …so the level of minecraft that they achieved for that group is, it was to me the highest they could have achieved, and, you know, I don't know, it's kind of sad, well I don't

know if it is sad to say, but when we think about it, a group can only move forward as

fast as the slowest member, right? Sometimes you can move a little faster when they help

that member and whatever, but there is a limitation there.

Movement in Minecraft was limited to skills and abilities of the group.

Observing Learning. The ability to observe learning also pushed forth as a sub theme of

Minecraft experiences. Kumu Laimana attested:

…I think they're progressing very well. At least with minecraft. I can actually see it. So I

can see them in action. And then their write ups their journals that they turn in every day,

then they also mentioned it all, always. And what's really good is that they are aware so

they are writing their responses on kaikua'ana kaikaina, and the frustrations that they

have. Right. In switching hats, right from kaikua'ana to kaikaina kinda thing.

This indicated that he was able to visually see and read about student learning

progression through the use of Minecraft. Additionally, he added,

…you can kind of see it happening, or at least you can see, you know, if one of the

conversations start happening, when they when it's free and engaging, and there is no

hesitation in asking for help or getting help. And also, when you see them, you know,

they're told right of conversation, when there is no tension, right? Just, I guess the best

word is all you hear is kōkua. Right? And they feel that, that, then then, you know, okay,

I think we're getting, but you don't know for sure. right? All you know, is that the stuff

that you're seeing indicates that that is happening. Now, whether it is happening, you

won't find out until you have actual discussions, or it appears in their writings. Right. and

so that all happened as we debrief and as we, as they started turning in their final papers.

you can see it clear in there.

Though some learning was seen throughout the semester, a complete assessment of learning occurred toward the end of the course and included debriefs and final paper assignments.

Shared Student Experiences. Within the documents review of existing educational practice, primarily, student journals and final papers, a range of student experiences within Minecraft extended forward as a sub theme. As seen in the document review one student wrote:

>…Minecraft was all about the experience, what role you find yourself in, and how you address the kuleana of that role. This is a larger lesson of kaikuaʻana- kaikaina that can be applied to life. To let go of needing control and focus on your kuleana, then you will be in a state of balance and happiness.

This point connected the Minecraft experience back to the learning of kaikuaʻana and kaikaina concepts and its application to real life. Another student projected in a piece of writing:

>…there was at times where I felt like the kaikuaʻana, although it was very brief times, and the majority of the time I felt like the kaikaina while playing this game. I think being put into hard situations in the game, with other threats like zombies, skeletons, and spiders, and on top of that the frustration of internet connectivity and that playing a huge role into things, I feel like testing out the kaikuaʻana and kaikaina relationship on this platform was a success.

This shared sentiment put forth student feelings of role understanding and Minecraft as a successful platform for learning. Additionally, as part of the document review a third student stated:

>Our class's interpersonal relationship became more positive in minecraft. The hands-on experience this environment gives a better understanding of others and the underlying

lessons being taught. With the virtual environment, it gives people opportunities to do

more for others with little risk.

This remark implied that the Minecraft experience offered much experience with the potential of

little peril.

Support

An elevated theme of *Support* came forth from interview and document review data

within the scope of instructor choices and course outcomes. This theme included two sub themes

that include *Support for Students*, and *Support for Instructor*. These sub themes revealed key

support decisions made and the outcomes produced. A meta-matrix shown in Table 6 portrays

how sample excerpts were grouped into sub theme and theme categories.

Table 6

Excerpts from Transcripts as Support

Excerpt from Transcripts	Emerging Sub Theme	Main Theme
"…already understood the principle kaikuaʻana kaikaina ..."	Support for Students	Support
"…appreciate all the help and support I received from my classmates and Kumu Juju, Tytus and Kumu…"		
"…helping to structure the games ..."	Support for Instructor	

Support for Students. Aspects of support intended for students made up a sub theme of

support choices. Kumu Laimana spelled out, "…Jenny's class, they already understood the

principle kaikuaʻana kaikaina, so they spoke respectively to the older students." Having a

support system of individuals who already understood proper behavior in role switching fostered

respect toward older students. One student remarked in their journal:

…it was fun to try and complete the tasks set forth by Kumu. I really appreciate all the

help and support I received from my classmates and Kumu Juju, Tytus and Kumu. It was

frustrating in that I could not help my team win the flag. I liked the camaraderie that was

exhibited from my classmates and trying to cheer me on. It made me feel good. Big

thanks to Kumu Juju and Tytus in trying to help me in the game and kumu for talking and

supporting me too.

Students received support from Kumu Laimana as well as from the support server administrators, Kumu Juju and Kumu Tytus.

Support for Instructor. Additionally, support for Kumu Laimana developed as a sub theme. He remarked, "…I think the other thing is, you know, so if I didn't have Julian and Tytus, helping to structure the games, I think it might, might have been way different." The support Kumu Laimana received from the server administrators was considered valuable by himself and the students.

Research Question #2-Rationale and Decision Making to Use Minecraft

Why was Minecraft chosen as a tool to teach kaikuaʻana and kaikaina concepts?

Four themes were uncovered in the area of Kumu Laimana's rationale and decision-making process to use Minecraft as a learning activity for teaching the concepts of kaikuaʻana and kaikaina concepts, protocols, and proper behavior. Table 7 depicts first cycle data codes and resulting second cycle pattern codes also referred to as themes or group themes relating to rationale and decision making. The four themes identified are *Online Experiential Option Needed*, *Willingness to Experiment with New Technology*, *Perceptions of Upside and Alignment*, and *Minimal Downside and Solutioning*. Additionally, several sub themes emerged in three theme areas.

Table 7

Coding Connected to Rationale and Decision Making to Use Minecraft

First Cycle Data Codes	Second Cycle Pattern Codes
"COVID-19", "USED TO USE A PROBLEM BASED PROJECT", "HAVE TO THINK OF ANOTHER APPROACH TO GET PEOPLE TO WORK TOGETHER AS A GROUP", "INVESTIGATING", "TEAM BUILDING", "WAS KEY THAT IT WAS COMBINED WITH ZOOM", "MY UNDERSTANDING OF MINECRAFT AND HOW IT'S PLAYED, WAS KIND OF LIMITED", NEEDING A PURELY ONLINE ALTERNATIVE, ONLINE OPTION, BEING OPEN TO RECOMMENDATIONS, INSTRUCTOR LEARNING THROUGH IMMERSIVE GAMEPLAY, "COLLABORATE TOGETHER", "ASSESSED WHETHER COMPLETED OR NOT", AFFIRMING THROUGH FURTHER PLATFORM INVESTIGATION, ZOOM PROVIDED COMMUNICATION SUPPORT, TEAM AND COLLABORATION BUILDING FRIENDLY PLATFORM, "I COULD ACTUALLY ALSO VIEW THEIR INTERACTIONS, WHICH WAS SOMETHING I COULDN'T DO", FLEXIBLE AND TIMELY ASSESSMENT, ENHANCING VERBAL AND NON-VERBAL COMMUNICATION THROUGH USE OF ZOOM, NOTICING THE TEAMWORK AND COLLABORATION CAPABILITIES IMMEDIEATELY, OBSERVING INTERACTIONS AND PRINCIPLE APPLICATIONS IN REAL TIME, "TEMPERATURE CHECK TO SEE HOW THEY WERE DOING", "WE COULD TALK ABOUT IT AND SEE HOW APPLYING PRINCIPLES", "KAIKUA'ANA KAIKAINA, COULD HAVE BEEN DONE, OR EVEN DONE BETTER", "IT HAD EVEN MORE ADVANTAGES THAN THE LIVE PROBLEM BASED, FACE TO FACE THAT THEY WERE DOING", "THE ONLY THING THAT LACKED WAS THAT IT WASN'T REAL, RIGHT, THERE WAS VIRTUAL", "I WAS WONDERING WHETHER IT WILL BE SUCCESSFUL BECAUSE INTERACTING ON REAL TIME WITH REAL CONSEQUENCES, REAL RESULTS, YOU KNOW, AS FAR AS PEDAGOGY, REALLY PLAYS IN A	ONLINE EXPERIENTIAL OPTION NEEDED WILLINGNESS TO EXPERIMENT WITH NEW TECHNOLOGY • OPEN MINDEDNESS • INSTRUCTOR'S GAMEPLAY PERCEPTIONS OF UPSIDE AND ALIGNMENT • MINECRAFT'S TEAMWORK AND COLLABORATION CAPACITY • PERCEIVED ADVANTAGES OVER PREVIOUS PROJECT MINIMAL DOWNSIDE AND SOLUTIONING • APPREHENSION OF NON-REAL WORLD APPLICATION ZOOM KEY FOR COMMUNICATION ASPECTS

Table 7 (continued)

First and Second Cycle Coding Connected to Rationale and Decision Making to Use Minecraft

First Cycle Data Codes	Second Cycle Pattern Codes
SIGNIFICANT IMPACT IN HOW THEY SEE AND KNOW THE WORLD"	

First, within the theme of *Willingness to Experiment with Technology*, two sub themes arose: *Open Mindedness* and *Instructor's Gameplay*. There were also several sub themes identified in the theme of *Perceptions of Upside and Alignment* which include *Minecraft's Teamwork and Collaboration Capacity*, and *Perceived Advantages Over Previous Project*. Lastly, the theme of *Minimal Downside and Solutioning* include two sub themes: *Apprehension of Non-Real World Application* and *Zoom Key for Communication Aspects.*

Four Themes Connected to Rationale and Decision Making to Use Minecraft

Online Experiential Option Needed

Kumu Laimana previously and successfully utilized a problem based project to allow implementation of course content. He shared:

> I used to use a problem-based project where they had to create their own team or their own group in order to complete a task or goal and in doing that, they need to exhibit or practice principles of the kaikuaʻana kaikaina relationship leadership protocols, and that was successful.

Due to the 2020-2021 COVID-19 pandemic in-person restrictions and guidelines, a new online alternative was sought to allow students to experience concepts learned. He explained:

> COVID-19 hit right before the project supposed to start, and so that made me, since we couldn't get together, you know, have to think of another approach to get people to work

together as a group and then experience the nuances and the problems and the issues that

occur with any group trying to accomplish a task.

The impetus of Kumu Laimana's rationale to utilize Minecraft stemmed from limitations of in-

person learning activities due to COVID-19 pandemic restrictions. The analytic memo, shown in

Table 8, showcases part of the researchers process in identifying the emerging theme of *Online*

Experiential Option Needed and initial thoughts of its implications.

Table 8

Analytic Memo-Emerging Theme: "Online Experiential Option Needed"

Emerging Theme: "Online Experiential Option Needed"
With permission from Kumu Laimana, the following are excerpts from the raw data: "I used to use a problem based project where they had to create their own team or their own group in order to complete a task or goal. And in doing that, they need to exhibit or practice principles of the kaikuaʻana kaikaina relationship leadership protocols. And that was successful, except COVID-19 hit right before the project supposed to start. And so that made me, since I couldn't get together, you know, I have to think of another approach to get people to work together as a group, and then experience, the nuances and the problems and the issues that occur with any group trying to accomplish a task." (Online: Interview #1)
Researcher's Memo: *This interview was the first with Kumu Laimana and it occurred online through Zoom. Kumu Laimana, who is the instructor of the course and who chose to use Minecraft to help teach kaikuaʻana and kaikaina protocols was very forthcoming with his reasons and process for initially choosing to use the popular game platform in his college level course.* *Based on the Kumu Laimana's response one theme that has emerged is the "need for new online option due to COVID-19". The instructor formerly had students engage in a problem-based activity where face to face interaction was integral but due to pandemic guidelines needed to find an alternative activity that could occur in a purely online environment.* *This suggests that perhaps this instructor may not have implemented Minecraft at all in his course if not for the disturbances the pandemic caused to in-person learning. Though the instructor is still utilizing the gaming platform currently as in-person learning has returned it would be insightful to reexamine the usage of Minecraft in this course several years after in-person learning has continued to gauge the instructor's sentiments.*

Willingness to Experiment with New Technology

Interview responses portrayed a broader theme of a *Willingness to Experiment with*

Technology when considering Kumu Laimana's rationale for considering Minecraft. The sub

themes of *Open Mindedness* and *Instructor's Gameplay* contributed to a notion of Kumu

Laimana having a disposition of wanting to try a technological option, in this case video game

learning. The meta-matrix (Miles et al., 2020) shown in Table 9 displayed the progression of

analysis from transcripts to sub theme and main theme selections.

Table 9

Transcript Excerpts as Willingness to Experiment with New Technology

Excerpt from Transcripts	Emerging Sub Theme	Main Theme
"…you could already see that it was team building, I mean, it was building stuff that they could do together." "…at the suggestion of Jenny, that Minecraft might be that venue, yeah, I decided to take a chance."	Open Mindedness	Willingness to Experiment with New Technology
"But not without first investigating that little bit more to see how it will work, how the game is played, and then seeing if that would apply in my class." "…at that time, my understanding of Minecraft and how it's played was kind of limited, although you know, I did try to learn how to do the very basics…"	Instructor's Gameplay	

Open Mindedness. Responses revealed that Kumu Laimana was open minded when

considering Minecraft as a possible alternative through the recommendation of others. He

relayed, "…at the suggestion of Jenny, that Minecraft might be that venue, yeah, I decided to

take a chance." Additionally, Kumu Laimana took the time to observe and interface in order to

investigate the game to see if existing or potential components aligned to intended experiential

student learning outcomes. He expressed, "…you could already see that it was team building, I mean, it was building stuff that they could do together."

Instructor's Gameplay. As part of Kumu Laimana's investigatory process, experience in gameplay began to build a familiarity with the video game platform. He imparted "…at that time, my understanding of Minecraft and how it's played was kind of limited, although you know, I did try to learn how to do the very basics…" While immersed in the actual gameplay experience, Kumu Laimana began to envision connections of the Minecraft game to a potential student activity or experience that could replace the former problem-based project and continue experiential learning of kaikua'ana and kaikaina protocols and behaviors such as potential instances for teamwork and collaboration.

Perceptions of Upside and Alignment

Next, a theme of *Perceptions of Upside and Alignment* surfaced from interview data in the aforementioned scope area. Within this theme was found two sub themes which include *Minecraft's Teamwork and Collaboration Capacity*, and *Perceived Advantages Over Previous Project*. These sub themes represented key proponents in the consideration for Minecraft as shared from Kumu Laimana, especially as elements aligned to course parameters and needs. Exploration from transcripts to sub themes and the main theme are provided in the meta-matrix shown in Table 10.

Table 10

Excerpts from Transcripts as Perceptions of Upside and Alignment

Excerpt from Transcripts	Emerging Sub Theme	Main Theme
"…you could already see that it was team building, I mean, it was building stuff that they could do together."	Minecraft's Teamwork and Collaboration Capacity	Perceptions of Upside and Alignment

Table 10 (continued)

Excerpts from Transcripts as Perceptions of Upside and Alignment

Excerpt from Transcripts	Emerging Sub Theme	Main Theme
"…to me it had even more advantages than the live problem based, face to face that they were doing, because I had the opportunity to view them."	Perceived Advantages Over Previous Project	

Minecraft's Teamwork and Collaboration Capacity. Shortly after exposure to the Minecraft game platform, Kumu Laimana observed the teamwork and collaborative aspects of Minecraft. Elements were considered aligned to aspects of kaikuʻana and kaikaina learning outcomes.

Perceived Advantages Over Previous Project. Though Kumu Laimana did see learning achievement through student work in the previously assigned class project intended to build kaikuaʻana and kaikaina concepts, some student levels of engagement were notably higher than others. One perceived improvement was that Minecraft could offer the ability for Kumu Laimana to be present within while kaikuaʻana and kaikaina concepts were implemented, giving the ability to more facilitation. He revealed:

I could actually also view their interactions, which was something I couldn't do, when they did their own problem based projects, they had to do that on their own. So this allowed me to drop in and, and just see, take a temperature check to see how they were doing. I didn't want to interfere too much. I wanted it to be kind of a natural progression and as they hit snags, right, or issues, then we could talk about it and see how applying principles, kaikuaʻana kaikaina, could have been done, or even done better.

Minimal Downside and Solutioning

Lastly in the area of Kumu Laimana's rationale for decision making to use Minecraft, a theme of *Minimal Downside and Solutioning* materialized through the analysis process. This theme possessed two sub themes that include *Apprehension of Non-Real World Application* and *Zoom Key for Communication Aspects.* The sub themes focused on the realization of potential challenges as well as the solutions-based approach chosen. The referenced minimal downside referred to the concept that expressed limitations were either solved or considered an acceptable chance to take. Examples of the process for the generated theme, and sub themes in this area from the interview transcripts are displayed in Table 11.

Table 11

Excerpts from Transcripts as Minimal Downside and Solutioning

Excerpt from Transcripts	Emerging Sub Theme	Main Theme
"…only thing that lacked was that it wasn't real, right, there was virtual. So that's the tradeoff, that I was wondering whether it will be successful…"	Apprehension of Non-Real World Application	Minimal Downside and Solutioning
"…that [Zoom] will give them face to face, even though virtual interactions. And I think it was a key that it was combined with Zoom, they would have to interact with each other."	Zoom Key for Communication Aspects	

Apprehension of Non-Real World Application. A potential downside mentioned by the Kumu Laimana, that would need to be assessed through doing, was a worry that the purely online learning activity would not have enough real moments for learning kaikua'ana and kaikaina concepts. Kumu Laimana conveyed:

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The only thing that lacked was that it wasn't real, right, there was virtual. So that's the tradeoff, that I was wondering whether it will be successful because interacting on real time with real consequences, real results, you know, as far as pedagogy, really plays in a significant impact in how they see and know the world, how they apply things.

His notion was that though transferring these social concepts in real life had a higher chance for things to go wrong, the application in the real world was important for students to experience in order to learn. Kumu Laimana ultimately assessed the potential uncertainty as minimal, and in the end he was not deterred from deciding to use the game platform, which still required students to communicate and work with varying individuals and personalities in the setting of an online college course.

Zoom Key for Communication Aspects. One obstacle encountered was the need for students to talk and work with each other through verbal communication as Minecraft the game only allowed for communication through a chat function. Kumu Laimana chose to utilize Zoom in conjunction with Minecraft. This allowed for both verbal communication and non-verbal communication as individual players saw each other on video and were able to observe facial expression, body movement, and more as long as cameras were on.

Research Question #3-Planning and Pivoting

What were the highlights and challenges in preparing for and using Minecraft to teach kaikuaʻana kaikaina concepts?

This research question focused on the examination of Kumu Laimana's planning efforts and experiences in pivoting through the use of Minecraft.

Synopsis of First and Second Cycle Coding Connected to Planning and Pivoting

Findings was gathered through first and second cycle coding connected to context of the third research question and the aspect of planning and pivoting. The collected data were distilled from instructor interviews and document review of existing educational practice. Specifically, data from interviews #2, #3, #4, #5 and #6 as well as student journals and final papers were drawn upon. Transcripts and documents were read multiple times and jottings were collected to denote aspects that seemed to be expected, be unexpected, or stand out to the researcher. Rounds of in vivo, process, and concept coding were conducted and analytic memos were developed at various stages within this process. With the collected codes from first cycle coding the researcher then engaged in the process of second cycle pattern coding which included the organizing and grouping of codes based on patterns recognized. Themes were then formulated to describe the groups of code. Second cycle pattern coding consisted of some reorganization and referencing of analytic memos. Additional analytic memos were developed as needed. Developed themes expressed the collective meaning or category of each group of codes. Themes and sub-themes were then triangulated with class observation notes and member checking with Kumu Laimana. An example of the full collection of first cycle code and resulting second cycle pattern codes, themes, can be observed in Appendix F.

Four Themes Connected to Planning and Pivoting

The four themes identified are Earlier Start, Involving Supports into Activity Planning, Changes Based on Class Size, and Awareness and Anticipation Needed. Additionally, several sub themes emerged in two theme areas.

The theme of Earlier Start possessed four sub themes: Logistics and Technical Issues, More Practice Time, Easing Needed for Those Uncomfortable or Resistant to Video Games, and

Focusing on Kaikuaʻana and Kaikaina Earlier. There were also four sub themes identified in the theme of Awareness and Anticipation Needed which include Anticipating Low Communication Early, Pace of Class, Struggling Students, and Flexibility to Change as Needed.

Earlier Start

Data collected through instructor interviews document review manifested the theme of Early Start. Within this theme four sub themes were identified which include Logistics and Technical Issues, More Practice Time, Easing Needed for Those Uncomfortable or Resistant to Video Games, and Focusing on Kaikuaʻana and Kaikaina Earlier. The sub themes presented represent the elements most associated the designation of starting early within the context of this course. Excerpts from interview and document review transcripts shape the subsequent sub themes proposed in the meta-matrix found in Table 12.

Table 12

Excerpts from Transcripts as Earlier Start

Excerpts from Transcripts	Emerging Sub Theme	Main Theme
"…instead of waiting till mid-term, implementing Minecraft and doing all the technical stuff, I decided to do it right at the beginning of the semester…"	Logistics and Technical Issues	Earlier Start
"…really appreciated that they had some introductions and some experience, you know, with it in the early part of the semester…time to prepare."	More Practice Time	
"…having that slow entry and getting accustomed … I think really helps."	Easing Needed for Those Uncomfortable or Resistant to Video Games	
… restructured my lesson plan a little bit to focus on kaikuaʻana kaikaina earlier …"	Focusing on Kaikuaʻana and Kaikaina Earlier	

Logistics and Technical Issues. Starting earlier allowed for more time to work on lingering logistical and technical problems. Kumu Laimana declared:

> The obvious things that I worried about was logistics, and that was true, we kind of, you know, expected it and prepared for it, but still there were problems, right, that I thought could be resolved. So instead of waiting till mid-term, implementing Minecraft and doing all the technical stuff, I decided to do it right at the beginning of the semester, to kind of get those technical things out of the way. That was one of those things and then I decided that instead of lumping it all into one shorter timeframe, to start doing some Minecraft activities early, so that you know, they have a chance to acclimate to these. For those who were, you know, new to minecraft. And I think that was kind of successful.

Kumu Laimana saw the earlier start as beneficial for solving many of the technical issues encountered with the utilization of Minecraft.

More Practice Time. Coveted practice time became a result from the decision to start early. Kumu Laimana described:

> I posed a question, would you have liked it the way it was, or have it at the end, like I did that first semester? And they all said, no, they really appreciated that they had some introductions and some experience, you know, with it in the early part of the semester. So it gave them some time to prepare.

More time to practice gameplay skills was seen as a benefit by the students involved.

Easing Needed for Those Uncomfortable or Resistant to Video Games. Extra time with Minecraft also allowed for a gentler entry for those needing a slower pace. Kumu Laimana explained:

…for some to get used to the idea. because one of the things that, you know, I'm starting

to realize is that those who are older and not comfortable with technology, and especially

video games, it's a real issue with them. To the point of some, some literally panic, you

know, when they hear that, so having that slow entry and getting accustomed, and some

needing hand holding, I think really helps.

Starting earlier allowed accommodation for those needing it.

Focusing on Kaikuaʻana and Kaikaina Earlier. Starting early also meant an earlier

delivery of kaikuaʻana and kaikaina content. Kumu Laimana recounted:

…but I attribute it to the, I restructured my lesson plan a little bit to focus on kaikuaʻana

kaikaina earlier. Right, and then make sure we have the support on the materials that

went in there. So by that time, we start playing minecraft, they know their role.

Having the early start on the course content gave understanding to kaikuaʻana and kaikaina roles

prior to the Minecraft start.

Involving Supports into Activity Planning

Instructor interview data spoke to the involvement of server administrators within the

activity planning process. Kumu Laimana elucidated that, " ... I worked closer with the kumu,

right, that was Jenny's boys, that we should plan the activity together…", and stated, "…thank

goodness for Julian and Tytus, because they came up with escape rooms, they came up with

other kinds of things that I was kind of unaware of ... " These support server administers, kumu,

were instrumental in helping to create alternative in game activities. The analytic memo, shown

in Table 13, displays an aspect of the researchers process in identifying the emerging theme of

Involving Server Administrators in Activity Planning and early ideas of possible implications.

Table 13

Analytic Memo-Emerging Theme: "Involving Supports in Activity Planning"

Emerging Theme: "Involving Supports in Activity Planning"
The following are excerpts from the raw data:
"The only other thing that I think I prepared over the first one was that I worked closer with the kumu, right, that was Jenny's boys, that we should plan the activity together." (Online: Interview #2)
"But thank goodness for Julian and Tytus, because they came up with escape rooms, they came up with other kinds of things that I was kind of unaware of, but I liked the idea of them having to, my students having to have the opportunity to, work together. Right, and, and solve problems.." (Online: Interview #2)
Researcher's Memo:
These excerpts come from the second instructor interview. This interview was a semi-structured interview with Kumu Laimana and it occurred online through Zoom. Kumu Laimana, who is the instructor of the course and who chose to use Minecraft to help teach kaikuaʻana and kaikaina protocols was very forthcoming with his reasons and process for initially choosing to use the popular game platform in his college level course.
Based on the instructor's response it appears that one pivot was to start including the support server administrators, Tytus and Julian, into some activity planning as they seem to have had skill in creating team challenges and games for different sized groups. One of those games being escape rooms.
This seems to be a key component to the shifting needed for conducting this class with varying group/class sizes. Also it shows again that the instructor is open to new ideas and solutions as he utilized the younger server administrators in the development process, imploring some of the kaikuaʻana and kaikaina behavior emerged in the course objectives.

Changes Based on Class Size

Through interviews Kumu Laimana remarked to changes being made based on varying class sizes. Kumu Laimana divulged:

> ... So we did not play all the scenarios that we did in the first class, at the end a competition, mainly because the numbers were so small, right? They didn't have a group to compete against. So therefore, we had to figure out new scenarios which I think we did well…"

He added, "…I think they intervene when it's necessary, right? To enable to keep the students on a positive note, right. Not to the point where they just get frustrated ... " The changes of activities

to suit a smaller class size and the additional help offered by the server administrators supported

the indicated changes based on class size theme. The analytic memo, displayed in Table 14,

shows part of the researchers process in identifying the emerging theme of *Changes Based on*

Class Size and early ideas of possible implications.

Table 14

Analytic Memo-Emerging Theme: "Changes Based on Class Size"

Emerging Theme: "Changes Based on Class Size"
The following are excerpts from the raw data: 　　　"I also had a lot more experience with minecraft, understood what were some of the things that we could do that maybe fit with what we're trying to do. So we did not play all the scenarios that we did in the first class, at the end a competition, mainly because the numbers were so small, right? They didn't have a group to compete against. So therefore, we had to figure out new scenarios which I think we did well, but we have to come up with things that will challenge them and forced them to communicate and talk as a group.", (Online: Interview #2) 　　　"And I think one last thing that was a little bit different than the first group, and it's because this group was really struggling with just the mechanics of minecraft, so Jenny intervened, and so the boys intervened, and trying to help them accomplish their tasks, right, and so that they wouldn't get discouraged. And I think that was helpful. Personally, I would have said, no, you know, once we set the rules, let's let it go. Right. But I think having them contribute, you know, because they've been experienced, that they've been playing the game a lot more, understandable. The challenge is, I think better. I think they intervene when it's necessary, right? To enable to keep the students on a positive note, right. Not to the point where they just get frustrated." (Online: Interview #2)
Researcher's Memo: *These excerpts come from the second instructor interview. This interview was a semi-structured interview with Kumu Laimana and it occurred online through Zoom. Kumu Laimana, who is the instructor of the course and who chose to use Minecraft to help teach kaikuaʻana and kaikaina protocols was very forthcoming with his reasons and process for initially choosing to use the popular game platform in his college level course.* *Based on the instructor's response it appeared that changes need to be made based on class sizes. The example he brings up is the need to readjust activities due to the class only having one group versus previously having multiple groups and activities being predominantly competition based.* *This seems very important in being able to prepare learning activities that can be flexible based on the number of students present or class size, since sometimes that is out of the control of the instructor. It stands out that the younger server administrators were able to devise team oriented challenges that were not based on inter group competition but rather intra-group cooperative efficiency. Makes me wonder how many other types of activities they could come up with if needed.*

Data gathered through the instructor interviews raised the theme of Awareness and

Anticipation Needed. Within this theme four sub themes were identified which include

Anticipating Low Communication Early, Pace of Class, Struggling Students, and Flexibility to

Change as Needed. These sub themes lend to the nature of the types of awareness and

anticipatory skills needed as expressed through collected data. Excerpts from interview

transcripts, which informed some of the first cycle codes that were grouped into second cycle

pattern codes and applicable themes within the major theme of Awareness and Anticipation

Needed became prominent in the meta-matrix endorsed in Table 15.

Table 15

Excerpts from Transcripts as Awareness and Anticipation Needed

Excerpts from Transcripts	Emerging Sub Theme	Main Theme
"…their default is don't say anything…"	Anticipating Low Communication Early	Awareness and Anticipation Needed
"…you cannot really move too fast, but you have to keep it interesting enough, challenging enough, for those who are skilled…"	Pace of Class	
"Be aware of those students who seem to be struggling…"	Struggling Students	
"…always have to remain open to change…"	Flexibility to Change as Needed	

Anticipating Low Communication Early. One key aspect of awareness was being

cognizant that groups may not communicate well early on. Kumu Laimana stated:

> …in teaching kaikuaʻana kaikaina protocol, that [communicating as a group] seems to be
>
> really difficult, right, for some to be thrown on board right then and show that they are
>
> not that skilled up to their fellow classmates. And so their option or their default is don't

say anything, right? And don't talk about anything and wait till after the class, when they

ask somebody that, you know, somebody in their family to help them answer a question

or do the research ourselves, which is really, yes, that's one way to get it done, but it's

slow, right, slow way to get it done.

Kumu Laimana recalled the need to anticipate potentially having little communication happening early in gameplay.

Pace of Class. Activities and class expectations needed to be tempered with the skill level at hand. Kumu Laimana stated:

I think on the kinds of games and challenges that they are faced with, that has to be

flexible, because it depends on how skilled your students are. And if you have a group

that's really not skilled, then you cannot really move too fast, but you have to keep it

interesting enough, challenging enough, for those who are skilled, right, to not get bored.

Kumu Laimana gained understanding that moving at the pace set by students is a realistic expectation.

Struggling Students. Having an understanding for those students who were struggling was a key component connected to awareness. Kumu Laimana disclosed:

Be aware of those students who seem to be struggling. And understand that the

frustration can be, you know, just, they can't get over the fact that they have to put in time

into what they consider frivolous, right? A waste of time.

Possessing awareness extended to keeping abreast of students struggling in Minecraft.

Flexibility to Change as Needed. Being open to change was needed to provide solutions to problems faced. Kumu Laimana informed, "I think you always have to remain open to change.

Because every group of students poses new challenges that you never thought of before." Kumu Laimana remained aware of the need to stay open and flexible when utilizing Minecraft.

Research Question #4-Takeaways

What are the positive or negative takeaways from the use of Minecraft to teach the learning of kaikuaʻana and kaikaina among the community college students?

This research question focused on identifying Kumu Laimana's learnings and key takeaways from utilizing Minecraft to teach kaikuaʻana and kaikaina concepts among college students.

Synopsis of First and Second Cycle Coding Connected to Takeaways

Collected data were gathered through first and second cycle coding connected to context of the fourth research question and the topic of takeaways. Information was uncovered from instructor interviews and document review of existing educational practice. Specifically, data from interviews #1, #2, #4, #5 and #6 as well as student journals and final papers were used to produce findings. Transcripts and documents were read multiple times and jottings were collected to notate things that seemed to be expected, be unexpected or stand out to the researcher. Rounds of in vivo, process and concept coding were conducted and analytic memos were developed at various stages within this process. With the collected codes from first cycle coding the researcher then engaged in the process of second cycle pattern coding which included the organizing and grouping of codes based on patterns recognized. Themes were then formulated to describe the groups of code. Second cycle pattern coding consisted of some reorganization and referencing of analytic memos. More analytic memos were developed as needed. Developed themes expressed the collective meaning or category of each group of codes. Themes and sub-themes were then triangulated with class observation notes and member

checking with Kumu Laimana. An example of the full collection of first cycle code and resulting second cycle pattern codes, themes, can be observed in Appendix G.

Three Themes Connected to Takeaways

The three themes identified are Encountered Obstacles, Course Goals and Assessment, and Refined Learnings from Instructional Experience. Furthermore, several sub themes emerged in these three theme areas.

The theme of Encountered Obstacles possessed three sub themes: Challenges with Technology/Instructions, Acquiring Gameplay Skills, and Considering Obstacle of Game Adoption by Students. There were two sub themes identified in the theme of Course Goals and Assessment which include Cooperative Efficiency, and Performance Oriented. Lastly, six sub themes arose in the theme of Refined Learnings from Instructional Experience which include More Groups in Class Spurs Communication, Writing Exercises Provide Feedback Loop, Incentive for Skilled Players, Ease of Role Switching for Young Game Experienced Students, Convenience Observing Students in Action and Ability to Provide Guidance, and Value of Students Adverse to Video Games.

Encountered Obstacles

Encountered Obstacles was one theme that stood out upon data analysis. Within this theme three sub themes were identified which include Challenges with Technology/Instructions, Acquiring Gameplay Skills, and Considering Obstacle of Game Adoption by Students. The resulting sub themes offered Kumu Laimana's considered challenges through his use of Minecraft. The meta-matrix found in Table 16 offer excerpt examples from interview and document review transcripts offered that supported subsequent sub themes.

Table 16

Excerpts from Interview Transcripts as Encountered Obstacles

Excerpts from Transcripts	Emerging Sub Theme	Main Theme
"…didn't follow the instruction…"	Challenges with Technology/Instructions	Encountered Obstacles
"…where to find instruction…they just weren't in the game as much…"	Acquiring Gameplay Skills	
"…it was frustrating because I could never stay in the game long enough.."	Considering Obstacle of Game Adoption by Students	

Challenges with Technology/Instructions. Issues with the use of technology and with following of detailed instructions proved to be a critical challenge for some. Kumu Laimana sounded, "I must have had at least six or seven students that didn't follow the instruction…what I wanted to achieve, cannot occur in where you have only one person there waiting for everybody." The importance of challenges experienced with technology or in correctly following instruction stood out among responses.

Acquiring Gameplay Skills. Building one's skill in playing Minecraft surged forward as an important challenge area. Kumu Laimana detailed, "The second obstacle that they had to overcome was where to find instruction…they just weren't in the game as much as they should have, on their own." Actually learning to play Minecraft stood out as a challenge area for most new to the game.

Considering Obstacle of Game Adoption by Students. Being aware of certain obstacles that may prevent students from engaging in Minecraft is also a challenge that was presented. According to a piece of writing one student vented:

I have never been very good at video games, let alone computer video games, so it was not a surprise to me. However, it was frustrating because I could never stay in the game

long enough. It was like as soon as I felt even a little bit confident, being able to keep up

with them, I would lose them again.

Knowing that there appeared to be obstacles that prevented students from fully adopting

and engaging in Minecraft proved a key point.

Course Goals and Assessment

Some evidence pointed to the theme of *Course Goals and Assessment*. Within this theme

two sub themes were identified which include *Cooperative Efficiency,* and *Performance

Oriented.* These sub themes stood out as key aspects of consideration by the instruction when

thinking broadly about course goals and assessments. Example excerpts from interview and

document review transcripts provide guidance toward the sub themes proposed in the meta-

matrix found in Table 17.

Table 17

Excerpts from Transcripts as Course Goals and Assessment

Excerpts from Transcripts	Emerging Sub Theme	Main Theme
"…cooperative efficiency… that we were able to come together work cooperatively, even in stressful conditions…"	Cooperative Efficiency	Course Goals and Assessment
"…if we're gonna assess our students, that's the final assessment, can they perform? ... "	Performance Oriented	

Cooperative Efficiency. The notion of cooperating in the most efficient way came forth

as a guiding point in the areas of course goals. Speaking about an in-class example Kumu

Laimana shared:

But they did add one word that was I was glad it's surprising. They said no, another word

we need in there is cooperative efficiency. And they all agreed. They said, yeah, because

that's what it is. Right? That's the end result. That's the performance, that we were able to

come together work cooperatively, even in stressful conditions. And not everybody was

equal.

Perceiving the objective to be simple cooperate efficiency stood out to the students and to Kumu

Laimana.

Performance Oriented. Utilizing kaikuaʻana and kaikaina principles in Minecraft was

seen as a performance-based assessment. Kumu expounded:

Minecraft is the performance end right. It provides. I mean, you have musicians, dancers,

whatever they practice, practice, practice, for what, a performance, performance solidifies

it. Right? Once they get past performance, and they did it, they know they have that

confidence and everything. They got it and I think in education, that's what Minecraft

allows right? Performance? Because okay, you learn all the theories. Let's see you do it

together. Yeah. And so, yeah, performance is really, I mean, if we're gonna assess our

students, that's the final assessment, can they perform? They can get it right on paper, or

when in a real situation, and they panic, right?

Being able to perform and use the behavioral principles in Minecraft, rather than just know them

theoretically, rang true to Kumu Laimana.

Refined Learnings from Instructional Experience

A collection of nuanced and memorable experiences shared by Kumu Laimana made up

the theme of Refined Learnings from Instructional Experience. Within this theme six sub themes

were identified, which include More Groups in Class Spurs Communication, Writing Exercises

Provide Feedback Loop, Incentive for Skilled Players, Ease of Role Switching for Young Game

Experienced Students, Convenience Observing Students in Action and Ability to Provide

Guidance, and Value of Students Adverse to Video Games. Each sub theme represented insights

shared. Provided in the meta-matrix found in Table 18 are sample instances from interview and

transcripts that formed the proposed sub themes.

Table 18

Transcript Excerpts as Refined Learnings from Instructional Experience

Excerpts from Transcripts	Emerging Sub Theme	Main Theme
"…with the larger class, you had, you had lots of people, right? Yeah, I had four groups, and they're all excited, they're all trying to compete with each other, there's a sense of urgency.."	More Groups in Class Spurs Communication	Refined Learnings from Instructional Experience
"…I have this little flexibility and feedback loop…"	Writing Exercise Provides Feedback Loop	
"…rewards for being skilled…"	Incentives for Skilled Players	
"…The young ones, they seem to adapt really well, to the kaikuaʻana position…"	Ease of Role Switching for Young Game Experienced Students	
"…It's extremely convenient. It also allows you to watch them in action…"	Convenience Observing Students in Action and Ability to Provide Guidance	
"…I need students who do not like video games, because that causes the rub. Right? …"	Value of Students Adverse to Video Games	

More Groups in Class Spurs Communication. A larger class size increased the

competitive dynamic which supported increased communication. Kumu Laimana illuminated

this point by stating:

> …with the larger class, you had, you had lots of people, right? Yeah, I had four groups,
>
> and they're all excited, they're all trying to compete with each other, there's a sense of
>
> urgency, when you have competing groups, right? That you tend to hang with your

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group, you tend to talk to each other, because you want your group to outshine the other

groups, but when it's just one group, then you don't have that sense of urgency there,

right? You just have, uh oh, I'm kind of gonna be, you know, exposed here. And my

weaknesses, I gotta cover up as best as I can, by not communicating. So that's the biggest

thing that I saw between, the challenge and that kind of challenge, and I think, if anything

that opened my eyes to okay so I need to be cognizant of what the dynamics are in the

class.

Having more students participating seemed to open up talking amongst the group.

Writing Exercise Provides Feedback Loop. Adding a journaling exercise allowed a

regular gauge to see what student were experiencing. Kumu Laimana shared:

The other thing that is making a difference than before, is having them write that 10

minute exercise at the end . Sometimes I give them a topic, sometimes I just say well,

what was impactful. Right? So that reinforces something. And if I don't see things that

are something, that often nobody talks about that then I know to focus a little bit more on

that. So I can still, you know, influence the trajectory of the course, more tailored to the

group in that way. Because I have this little flexibility and feedback loop now.

Regular student writing provided another way for Kumu Laimana to connect with the needs and

progression of the students.

Incentives for Skilled Players. Rewarding experienced players with special in game

experiences and prizes helped with engagement. One sharing from Kumu Laimana revealed:

So part of the rewards for being skilled is that, especially after the last activity we had,

which was the parkour course, you know, lava course, was that if you finish the course

early, you got to go to the casino, right, and win diamonds. and so for those who finished

early, they got to win lots of diamonds, and those who didn't probably didn't hardly win

any diamonds, which they will see when they get together, as they are going to need

those diamonds for armor and for everything else, when we get to the challenges. so I

think that as a reward is a good way to keep the skill players interested. and have those

that are still working on their skills, trying to build up their skills, because they're gonna

find out how valuable it is. so they're gonna want to get to that.

He shared that one way to engage advance players was to provide exciting in-game side experiences with the chance of rewards.

Ease of Role Switching for Young Game Experienced Students. Role switching of younger more game experienced players into kaikuaʻana was seen as easier compared to the role switching of older students into the kaikaina position. Kumu Laimana pointed out:

The young ones, they seem to adapt really well, to the kaikuaʻana position. And helping

the kaikaina, I think, because they understand the challenges they went through that they

know exactly where, why, what they're going through, so they tend to be more patient

with them."

Young students with Minecraft experience found smooth transitions to kaikuaʻana.

Convenience Observing Students in Action and Ability to Provide Guidance.

Minecraft provided Kumu Laimana an opportune vantage point for gauging progress and providing real time feedback. He made the point that Minecraft had:

Convenience. It's extremely convenient. It also allows you to watch them in action, which

if they were doing, you know, a problem based projects on their own, I wouldn't be able

to see any of it, and actually, they could invent all the data, right? They could just make

up stories. And I'd never know, well, whether that's true or not. This I got; I get to

actually see what's happening. I think that's important. Because for them, they realize

their actual actions are accountable. Right? Because, you know, they know, like, when

they see my avatar in the game, right, then they go, who's that? And then they go, oh,

that's kumu. Oh, and they go quiet. So the fact that they know, the teacher is in the room,

right? Or the kumu is there generates, you know, I guess the motivation to conform or to,

to do the right thing. And it's in that performance, right, that they do, that they start

realizing.

The video game platform allowed Kumu Laimana viewing access to leaning experiences of

students and a chance to facilitate discussion if needed.

Value of Students Adverse to Video Games. Students who came into class with a

mindset closed to the value of Minecraft were seen as a vital piece to this learning puzzle. Kumu

Laimana stated in particular:

One of my major concerns is I need older students. Or I need students who do not like

video games, because that causes the rub. Right? If they're all good with video games,

then what happens? It's just a competition between each other.

Not having students adverse to video games would have depleted a dynamic helpful toward

teaching kaikuaʻana and kaikaina behavior.

Chapter 5. Implications

This narrative inquiry case study examined the how the choices of an instructor to use Minecraft affected the learning of kaikuaʻana and kaikaina concepts among community college students within a Hawaiian governance course. Imagine what students see and observe within the world of Minecraft (Miller et al., 1998). In the Minecraft world of *Living with Kuleana: Hawaiian Systems of Governance* class, the haumana or students start by walking around and checking out the terrain. They see that it is daytime and the natural elements around are quite visible. Patches of grassy areas filled with trees of different sizes lead to abrupt hillsides accessible through terraced earthy sections. Below is a small body of water but as they make their way to a higher point they see that there is a larger body of water surrounding the area. The higher they climb the easier it is to see that the Minecraft world extends further than they first thought it would. The group of students in this area of the world are still moving about, figuring out what they can do. The instruction was for the group to build a house as protection from hostile game features as nightfall approaches. Students here are attempting to first gather wood, craft tools, then create resources they could use to build a house. One of the players is very familiar with the game as they have already created a crafting table and are now have more options when it comes to tool and resource building. A few of the students start to gather wood and begin to ask what they should do with it. The student expert begins to give those students insight and instructions. One student has not gathered wood yet and is having difficulty traversing the landscape. They complain that they never play video games and that they will never be able to figure this out. Some of the students give words of encouragement to the struggling student and in a flash the student expert arrives near the struggling student to gift them

tools and resources. In Minecraft, the students notice that daylight slowly starts to lessen and night approaches.

Summary of Study

In examining the choices of an instructor to use Minecraft to support the learning of kaikuaʻana and kaikaina in a Hawaiian governance course, the study was guided by the theory of constructivism, where the learner constructs knowledge based the value they connect to the learning experience, and ma ka hana ka ʻike, learning through doing. The research explored the four research questions "how did the choices of the instructor of a Hawaiian governance course to use Minecraft affect the learning of kaikuaʻana and kaikaina concepts among community college students?", "why was Minecraft chosen as a tool to teach kaikuaʻana and kaikaina concepts?", "what were the highlights and challenges in preparing for and using Minecraft to teach kaikuaʻana and kaikaina concepts?", and "what are the positive or negative takeaways from the use of Minecraft to teach the learning of kaikuaʻana and kaikaina among the community college students?" The parameters of this qualitative study were limited to the specific case of a community college Hawaiian governance course and focused primarily on the narrative of Kumu Laimana through multiple interviews, though student expression was derived from document review of existing educational practice, which includes student journals and final papers. This focus on one instructor on one course allowed the research to reflect on Kumu Laimana's journey, insights, and learnings through the use of Minecraft as a teaching tool. Though insight was gained toward Kumu Laimana's experience, the study was limited in that it did not fully gather data from the perspective of the students nor did it gather data from the perspective of any technology support individuals. These are all possible areas of future research.

Data Interpretation

The results of this study were organized into a set of major themes and sub-themes as seen in the previous Chapter 4. Following is a model that synthesized those themes into a cyclical diagram of Minecraft usage found in this narrative inquiry case study. The thematic array presented in Figure 2, is titled *A Model for Utilizing Minecraft to Teach Kaikuaʻana and Kaikaina Concepts*. Within this model, there are five components found to be central for understanding utilization of Minecraft to teach kaikuaʻana and kaikaina concepts to community college students in a Hawaiian governance course. These components include: *Informed Decision Making* referred to choices based on research and rationale; *Deliberate Instructional Choices* denoted the careful considerations and intentions applied to chosen paths of doing*, Meaningful Minecraft Experiences* concerned the actual activities and challenges participated in, and resulted student learnings from those activities; *Awareness Based Pivoting* signified the acute nature of instructor observations coupled with adjustments made; and *Instructor's Reflection and Learnings* posited a system of self-reflection, constant consideration, and iterative approaches to course design. The model represented the seemingly cyclical nature of the components as display through this narrative inquiry case study. This model does not take into account other instructor experiences with using Minecraft to teach kaikuaʻana and kaikaina principles or other Hawaiian concepts due to the fact that the scope of the study was a narrative inquiry case study focused on the journey and experiences of one instructor, Kumu Laimana. Studies that incorporated the viewpoint of other instructors using Minecraft in a similar way may have added to the development or reconfiguration of this model.

Figure 2

Model for Utilizing Minecraft to Teach Kaikuaʻana and Kaikaina Concepts
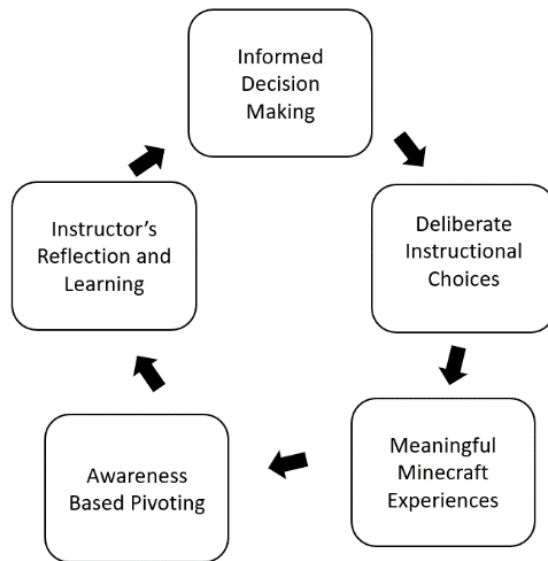
Informed Decision Making

When Kumu Laimana pursued Minecraft and took into account his beginner level in Minecraft and expertise in kaikuaʻana and kaikaina, what became clear in the series of interviews was Kumu Laimana's tendency to make informed decisions. He noticed what Minecraft had to offer when playing with his grandchildren. He connected the notions of teamwork in the game to kaikuaʻana and kaikaina. He planned for technical support for access as well as game play features. Though the body of academic knowledge lacked findings in the area of detailed instructor decision making connected to Minecraft, Lincenberg and Eynon (2021) did propose the idea of considering Minecraft as a solution to limitations in schools such as physical space showcasing the possibility of instructors contemplating choice when it comes to video game learning, while Franciosi (2019) maintained the pivotal role instructors played in actually choosing to use video games for learning. Additionally, Sánchez-Mena et al. (2017) confirmed usefulness as a factor in higher education teachers' choices. Choices Kumu Laimana made

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toward Minecraft seemed to be based on research, gathered input, experiential insight, and reflection. Thoughtful and calculated decisions occurred from the initial incorporation of Minecraft into the Hawaiian governance as well as enacted over multiple iterations of Minecraft usage.

Deliberate Instructional Choices

The next component drawn from the findings are the deliberate instructional choices. Earlier class sessions were deliberately dedicated to Hawaiian governance topics with the principles of kaikuaʻana and kaikaina fully covered in preparation for their experimentation with the behaviors within Minecraft. Noticing and expecting that not everyone playing Minecraft would thrive as players in the game, Kumu Laimana continuously encouraged students and deliberately warned that they would die in this game and probably a lot in the beginning. In-game challenges and activities were designed and implemented for the specific purpose of creating scenarios for learning how to play Minecraft as well as team building, communication and overall for the development, seen also in previous gameplay studies (Barr, 2017; Barr, 2018; Beavis et al., 2017; Callaghan, 2016; Ellison & Evans, 2016; Lane & Yi, 2017; Short, 2012) of the attributes key to mastering kaikuaʻana and kaikaina concepts. Vlachopoulos and Makri (2017) extended the notion that "integration of games depends on instructors' contribution and the way they design and incorporate games in their teaching" (p. 8), while Gee (2016) noted the importance of instructional design when it comes to in-game interaction, and Lameras et al. (2016) suggested that instructors were the pivotal piece toward tying the learning content to the game environment. The sequence of content delivery was intended to provide the foundational knowledge students need to fully engage and achieve learning. Even the support mechanism embedded in the course allowed for students and Kumu Laimana to receive help and assistance

when needed. Therefore, within this study were examples of preconceived limitations of video game learning not being able to ensure learning on its own without an instructor influence (Rowan, 2017) and the medium having to rely on school systems and a balance of pedagogy (Beavis et al., 2017).

Meaningful Minecraft Experiences

Another component that surfaced was the meaningful Minecraft experiences. The game at hand was Capture the Flag but round two incorporated a little twist. This round had each team designating a president and only that person could have retrieved the flag. The rest of the team was charged with protecting that person. The individuals designated to be the presidents seem to have been the least skilled players on each team. One of the presidents even had technical issues accessing the game for majority of the all the Minecraft sessions and only recently showed some skill in navigating a parkour course. But the teams were unfazed by these details. In fact, the team with the aforementioned president ensured each other that they would have each other's back and that they could win this; they just needed to work together. When the game started the skilled players did their best to protect the president. This meant that they had to go above and beyond to defend against the stronger players sometimes having to fight against multiple people at once. The group's initiative seemed to motivate the president of this team and though he was not very skilled at even navigating the course he pushed forward with purpose and determination. He felt he had to do his best and contributed because the rest of his group believed in him and were pushing themselves past their comfort zones so he had too as well. Fast forward to the end, the team did not win the match, but you were not able to tell from the way they spoke to each other. They were so happy that everyone gave it their best effort. Communication was high, effort was high, and comradery and morale were high. The team

members reminisced on how close they had gotten in that match and how the top players had only finally got them after they were killed initially and needed to respawn. The team leader later expressed in her journal that this was one of the best challenges she had ever played, not in the class, but in her entire life. The designated president wrote that though he felt frustrated that he could not help the team win in the end, he like how good it felt to be cheered on by his team. The idea of meaningful experiences in Minecraft extended forth as a component within this developed model. The experience aspect of this component is aligned to findings from Sanders (2021) that evoked Minecraft's setup as situated for interactive individual and group experiences and sentiments from Cózar-Gutiérrez and Sáez-López (2016) that spoke to the engaging and immersive experience of Minecraft even among those students that saw video games as non-essential. One could also draw connections of these meaningful experiences to the learning being achieved as Baek and Min (2020) discussed the persistent effort within Minecraft in education leading to the enhancement of skills and the acquisition of knowledge and as Wershler and Simon (2021) expressed how students utilized skills in Minecraft to accomplish prescribed academic work. The experiences themselves ranged from having students learn to navigate within the game, harvesting and building, to working as a team to complete treks to far off beacons, and playing capture the flag. But the meaningfulness attributed to these experiences go beyond the design to either to catalyze teamwork and communication or fulfilling the need of the demographic at hand, specifically larger class sizes with multiple groups and smaller class sizes with just one group. It was seen in the writings and sharing's of the students. Descriptions of their success, failures, reflections, challenges, growth, and epiphanies. This component speaks past the act of video game play and delves into personal experience and connection.

Awareness Based Pivoting

With awareness to the happenings of the student Minecraft experience, Kumu Laimana was able to pivot and adjust accordingly to specific needs, as they arose. When speaking to Kumu Laimana about adjustments he might have made along the way he brought up the instance of having only five students finally enrolled in one of his classes. This became an issue because he could no longer utilize the Minecraft activities he used previously as they were mostly designed for multiple groups to participate in group competitions with each other. He was able to continue with having the lone group trek to a beacon but it ended up not have the same full effect and needed to have other games to retain engagement of the class. He decided to tap into his server administrator support team to get some ideas. One idea was to create an escape room where the team still worked together and communicated but instead of the competition element being with another group it would now be with each challenge set up in the escape rooms. Challenges then required discovered clues from each person's individual room that would help the entire team escape. The new challenge worked great, the team members talked a lot and helped each other out, and morale soared. Kumu Laimana was able to change the direction of the learning activities a bit and opened the door to another resource in his server administrators for future in-game challenge design. An insightful component was that of anchored adjustments made by Kumu Laimana based on a heighted sense of awareness. Each small change resulted from an observed or foreseen issue. A similar instructor awareness was shared by Carpick (2002) as it was noticed that reserved students held the potential of being embarrassed from freezing up in a class quiz game and by Martí-Parreño et al. (2018) who conveyed the likelihood of stronger student positive attitudes with undergraduates that clearly perceived the relevance of the installed video game learning. This showed that Kumu Laimana not only kept himself informed of in-

game happenings but also prioritized the need to help and alleviate challenges that students might have been experiencing. And even as Kumu Laimana made slight changes he remained true to his initial intent of teaching through the medium of Minecraft.

Instructor's Reflection and Learnings

The final component in this model was Kumu Laimana's reflections as learnings within the process and utilization of Minecraft. Kumu Laimana shared insights to each of the three courses, and each course seemed to be different and possessed its own set of challenges and successes. From his responses he was very aware of each iteration and had put a lot of thought and contemplation into the challenges that were presented especially as it pertained to specific students. He recalled student's frustrations, family situations, and most importantly the learnings that they expressed to him through writing or conversations. I sensed that each of these memories were and are more than just the result of an involved and dedicated teacher; the memories are connected to a system of growth and development that Kumu Laimana utilized to improve or keep what was and is working in his classes. He was constantly reflecting on what he could do better, what was working, and what future classes might have looked like. A memorable component is that of Kumu Laimana's consistent reflection toward his experiences leading to growth and learning in the arena of video game learning and more specifically, using Minecraft to teach kaikuaʻana and kaikaina concepts. Though the body of academic knowledge lacked findings in the area of detailed instructor specified and based reflection and learning connected to Minecraft, there were ample amounts of studies which themselves serve as reflections and learnings in the usage of video games, specifically toward Minecraft for educational purposes (Baek & Min, 2020; Callaghan, 2016; Cózar-Gutiérrez & Sáez-López, 2016; Ellison & Evans, 2016; Lane & Yi, 2017; Sanders, 2021; Nebel et al., 2016;) as well as those specific to an

instructor's role in video game learning and Minecraft (Dezuanni & O´Mara, 2017; Franciosi,

2019; Gee, 2016; Lane & Yi, 2017; Lincenberg & Eynon, 2021; Vlachopoulos & Makri, 2017;

Sánchez-Mena et al., 2017; Vlachopoulos & Makri, 2017). Kumu Laimana's remarks of

experiences that spanned three course usages of Minecraft suggested a pattern of reflection and

learning that connected all the experiences.

Discussion of Findings

Research Question 1-Instructor Choices and Course Outcomes

The first research question was, "How did the choices of the instructor of a Hawaiian

governance course to use Minecraft affect the learning of kaikuaʻana and kaikaina concepts

among community college students?" Through a qualitative lens, choices Kumu Laimana made

had an impact in learning of kaikuaʻana and kaikaina concepts when they were purposeful

toward the student experience and the learning outcomes intended. The main themes of Varying

Student Skill Levels, Design of Instruction, Minecraft Experiences and Support were found to be

significant aspects of the choices Kumu Laimana's made in order to prepare for and achieve the

course outcomes.

Varying Student Skill Levels. Kumu Laimana described a typically varied level of

Minecraft skill sets among students within a given class with levels ranging from very skilled

and somewhat skilled to students with no previously developed Minecraft ability. A

heterogeneous collection of student skill levels within the Minecraft learning environment,

similar to the reference to skilled and newer players made by Nebel et al. (2016), perhaps should

be noted as likely by instructors when considering instructional and course planning.

Design of Instruction. Findings showed an importance in design of instruction. The

consideration and intention Kumu Laimana relayed to his role as instructor exemplified the value

instruction plays in video game learning (Vlachopoulos & Makri, 2017; Gee, 2016) and furthered the notion that video game learning was not a stand-alone tool for learning separated from competent instruction (Beavis et al., 2017).

Minecraft Experiences. Another thematic finding centered on the experiences students had within Minecraft. Experiences noted were mostly connected to student experiences of learnings (Lukosch, 2016) gained while being in either the role of a kaikuaʻana or kaikaina. Gee (2006) also saw video games as an opportune space for deeper learning as they "allow meanings to be situated…allowing for goals that meld the personal and the social" (p.179). Additionally, Howland et al. (2013) posited that video games "are set up to encourage active and critical, not passive learning" (p. 63).

Support. Generally, support was integral to the delivery of the course. Perhaps a support component, and the availability of resources, was needed, or at least should be considered for future courses delivered through Minecraft (Cipollone et al., 2014; Martí-Parreño et al., 2018; Barr, 2017)

Research Question 2-Rationale and Decision Making to Use Minecraft

The second research question was, "Why was Minecraft chosen as a tool to teach kaikuaʻana and kaikaina concepts?" Accelerated by the world context of COVID-19 isolation, Minecraft was chosen because, through advice and research, it was found that this video game held qualities that could provide a solution to an arising need for online learning. The main themes of Online Experiential Option Needed, Willingness to Experiment with New Technology, Perceptions of Upside and Alignment, and Minimal Downside and Solutioning were seen to be integral parts of the rationale and decision making to use Minecraft.

Online Experiential Option Needed. Constraints of the COVID-19 pandemic, primarily limitations of in-person interactions, drove the need for an online option, in this case the use of video game learning, to experientially teach kaikuaʻana and kaikaina concepts. Video game learning as a flexible vehicle for engagement (Beavis et al., 2017) provided the opportunities students needed in an online space (Lincenberg & Eynon, 2021) to interact with learned behavioral principles based on Kumu Laimana's descriptions.

Willingness to Experiment with New Technology. Kumu Laimana possessed a certain openness toward technology as he dabbled with video games when considering the option. Through a willingness to experiment, the gained familiarity of video games' usefulness connected to higher education instructor utilization (Sánchez-Mena et al., 2017) was seen strongly. However, standard attributes for utilization were debatable as some instructors who have noticed video games' ease of use (Sánchez-Mena et al., 2017) and understood benefits related to video games (Franciosi, 2019) still chose not to utilize the medium.

Perceptions of Upside and Alignment. Perceived notions of Minecraft's benefits and how the tool might have supported kaikuaʻana and kaikaina learning seemed to have led to a decision to use the game platform. Potential upside and course alignment elements included collaboration (Callaghan, 2016; Lane & Yi, 2017; Nebel et al., 2016) and flexibility (Ellison & Evans, 2016; Lane & Yi, 2017). However, considerations of benefits were not shown as proven factors of decisions to integrate video game learning (Franciosi, 2019; Sánchez-Mena et al., 2017).

Minimal Downside and Solutioning. Kumu Laimana saw minimal downsides while contemplating the use of Minecraft and was able to solution for the few anticipated challenge areas. Though there were no other examples found in the literature of an instructor's

considerations toward specifically identified minimal downsides and solution provisioning prior

to utilizing Minecraft, perhaps the indication here exposed how teachers might have been more

drawn to the upsides of Minecraft (Baek & Min, 2020; Callaghan, 2016; Cózar-Gutiérrez &

Sáez-López, 2016; Ellison & Evans, 2016; Lane & Yi, 2017; Nebel et al., 2016, Sanders, 2021;

Wershler & Simon, 2021) rather than specific anticipated challenges like technical issues (Barr,

2017).

Research Question 3-Planning and Pivoting

The third research question was, "What were the highlights and challenges in preparing

for and using Minecraft to teach kaikuaʻana and kaikaina concepts?". In terms of preparation,

changes made to course direction, designs and plans came about due to acute instructor

awareness toward arising needs and issues within the course. The main themes of Earlier Start,

Involving Supports into Activity Planning, Changes Based on Class Size and Awareness and

Anticipation Needed were found to be meaningful aspects of the planning and pivoting within

the utilization of Minecraft.

Earlier Start. For the most part, pivoting to an earlier Minecraft start allowed more time

for problem solving, trouble shooting, and student proficiency. As instructors were seen to be a

vital piece to a successful video game learning implementation (Franciosi, 2019; Vlachopoulos

& Makri, 2017), considerations of when actual Minecraft gameplay started within the timeline of

a course perhaps holds some importance.

Involving Supports into Activity Planning. Overall, Kumu Laimana projected that

pivoting to having the support server administrators involved in activity planning produced key

activities essential to the student learning based on the varying size of classes and groups. In

addition to Gee's (2016) recommendation of interactively designed video game learning

experiences perhaps the utilization of a multi-subject matter expert approach, or even potentially future student involvement (Vlachopoulos & Makri, 2017), to in-game activity and challenge building might have enhanced the designs specific to arising needs.

Changes Based on Class Size. Generally, some changes were made to game activities based on the differing sizes of classes with smaller classes not having offered potential for group-to-group challenges and competitions. Specifically changing activities based on class size emphasized the importance flexibility was to ensure game integration (Vlachopoulos & Makri, 2017) was accomplished.

Awareness and Anticipation Needed. Kumu Laimana held an awareness toward the needs of the students in the class and tried to anticipate challenges and respond with change when needed. This might specify the mindset one utilizing Minecraft, or even other video games, may need to better prepare for pivots and changes throughout the course. Though the importance an instructor's role in video game learning (Franciosi, 2019; Vlachopoulos & Makri, 2017) was expressed, the interactive ability of Minecraft between teacher and student (Lincenberg & Eynon, 2021) seemed to have allowed for on-going observations leading to an increased awareness of student needs within the game (Lane and Yi, 2017).

Research Question 4-Takeaways

The final research question was, "What are the positive or negative takeaways from the use of Minecraft to teach the learning of kaikua'ana and kaikaina among the community college students?" Specific insights are drawn from reflections and learnings expressed in the findings. The main themes of Encountered Obstacles, Course Goals and Assessments, and Refined Learnings from Instructional Experience were found to be significant takeaways gathered from Kumu Laimana.

Encountered Obstacles. Generally, Kumu Laimana discussed the noticed obstacles that arose throughout the duration of utilizing Minecraft. The recognition of experienced challenges might be considered a start to needed systems or processes that can be utilized to help video game learning to thrive in educational settings (Squire, 2005).

Course Goals and Assessment. Findings showed specific thoughts and viewpoints toward course goals and assessment. Kumu Laimana took an active role in aligning the video game Minecraft to his specific course criteria (Vlachopoulos & Makri, 2017) including consistent reflection of course goals and the assessment process.

Refined Learnings from Instructional Experience. Additionally, refined case specific learnings were shared pertaining to Kumu Laimana's usage of Minecraft to teach kaikuaʻana and kaikaina concepts. Reflections continue to support the role of instructor in video game learning (Franciosi, 2019; Vlachopoulos & Makri, 2017) and added to the aforementioned notion of needed developed systems or processes to advance video game learning (Squire, 2005).

Connecting Main Themes to Model Components

Connections of main themes to one or more of the presented model components were identified to categorically organize themes within perceived spaces of applicability in terms of the aforementioned model rather than through the previously seen organization based on research question. The graphic found in Figure 3 displayed an expansion of the original model presented previously with main themes organized to applicable model components.

Figure 3

Main Themes Connected to Model Components

- Online Experiential Option Needed
- Perceptions of Upside and Alignment
- Minimal Downside and Solutioning
- Varying Student Skill Levels Encountered Obstacles

Informed Decision Making

- Willingness to Experiment with New Technology
- Perceptions of Upside and Alignment
- Minimal Downside and Solutioning
- Earlier Start
- Involving Supports into Activity Planning
- Changes Based on Class Size
- Refined Learnings from Instructional Experience

Instructor's Reflection and Learning

Deliberate Instructional Choices

- Online Experiential Option Needed
- Awareness and Anticipation Needed
- Varying Student Skill Levels
- Design of Instruction
- Minecraft Experiences
- Support
- Encountered Obstacles
- Course Goals and Assessment
- Refined Learnings from Instructional Experience

- Willingness to Experiment with New Technology
- Earlier Start
- Involving Supports into Activity Planning
- Changes Based on Class Size
- Awareness and Anticipation Needed
- Refined Learnings from Instructional Experience

Awareness Based Pivoting

Meaningful Minecraft Experiences

- Awareness and Anticipation Needed
- Design of Instruction
- Minecraft Experiences
- Support
- Encountered Obstacles
- Course Goals and Assessmen
- Refined Learnings from Instructional Experience

Suggested Instructor Characteristics

Certain characteristics were observed of the kind of instructor it might take to accomplish utilizing the medium of Minecraft to teach kaikuaʻana and kaikaina concepts to college students. First, being an instructor that is technologically savvy or at least familiar and comfortable with technology, especially video games, seemed to be essential. This quality is reinforced by notion shared by Lameras et al. (2016) of how integral an instructor is in connecting the game environment to the learning content.

Perhaps, an instructor who was empathetic and understanding of varying student types, almost in an intuitive way, may be preferred. Design of video game integration and the supports provided result from the instructor's learning design (Vlachopoulos & Makri, 2017; Gee, 2016). With an understanding that differing students will require differing supports and instructors might be more prepared for individualized learner needs.

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Lastly, having an instructor who is well-versed in the presented content and more specifically, in the case of cultural content, having a foundational or practical knowledge of the aforementioned cultural content seemed vital. The questions to be raised at this juncture is if this cultural content could be taught by someone not of the culture? Or if it was taught by someone not of the culture, could it be considered cultural commodification? Or would this method work for other culture's content? In this particular case study the instructor was, both ethnically and practically, of the culture presented. So it is safe to say that someone of the culture could perhaps replicate this particular endeavor. Whether it could be similarly conducted by someone not of the culture and whether that would be considered cultural commodification would need to be left to a future study. Though as a researcher I would not be interested in conducting that particular study, from my positionality I would first and foremost only be interested in this type of further researcher if the instructor, though not ethnically part of the culture, was at least practically a part of the culture, had an appropriate teacher who was a part of the culture, and had passion and commitment to being authentic and furthering the opportunities for indigenous people involved from which the cultural content was derived. As for if this teaching method would work for other culture's content, that would need to be further researched as well.

Profile of a Potentially Successful Student

The main profile distinction of students noticed within this study was that of students who were familiar with technology and video games and those who were not. Students who were more technologically adept adapted sooner to the learning activities and overall learner outcome goals. Those students who were not comfortable with video game technology from the onset, mostly older generational students, adapted to the learning activities at a slower rate and thus

seemed to have fewer opportunities for learning within the schedule activities. Learning outcomes seem to have still been met by all students by the end of the course. Based on these distinctions the overall characteristics that might most benefit a student would be open-mindedness and for those not comfortable with technology, a willingness to try and fail repeatedly.

Connecting to the Problem of Practice

The problem of practice revolved around the idea that the exigency for different pedagogy like video game learning continues to be overlooked and minimized. The research implications of this study are about the parameters of utilizing a tool like Minecraft to support the teaching of Hawaiian governance concepts like kaikuaʻana and kaikaina in a community college setting. The model developed may assist those within the practice education who may seek the utilization of alternative methods of teaching such as video game learning. The model is aligned to the theoretical framework of constructivism and ma ka hana ka ʻike.

Overall, this study advocates for video game learning. The study elevated the story of an instructor that not only attempted teaching through the use of Minecraft but also found success, displayed consistency with the medium, and showed growth and development as a user of video game learning. Though the study was limited to the particular case of teaching kaikuaʻana and kaikaina concepts through Minecraft and the vantage point limited further to instructor narrative, there was a significant amount of insight gathered and provided for future practitioners and many directions for possible future research.

As constructivism (Hein, 1991) spoke to the importance of the student connecting value to the specified piece of information being learned and ma ka hana ka ʻike (Pukuʻi, 1983) served as a Hawaiian methodology of learning through doing, there were several layers of student

learning relationships happening through the case studied. The knowledge of Kumu Laimana's journey in the utilization of Minecraft to teach kaikuaʻana and kaikaina concepts showcased a clear representation of the theory of constructivism. As shown in the findings, data gathered from the vantage point of the instructor through narrative inquiry aligns to the proposed value connection Kumu Laimana seemed to have placed on specific decisions, reflections, and learnings. Thus, what has been presented is not only an instructor's learnings but also an example of constructivism in action.

The journey Kumu Laimana's shared is a direct example of ma ka hana ka ʻike in the realm of teaching through video game learning, specifically with Minecraft. Kumu Laimana's journey is one of learning through doing from the beginnings of an idea to enactment, through completion, reflection, and iteration. In fact, one could perhaps have seen the notion of ma ka hana ka ʻike as a process of iteration and growth through reflection and adjustment as expressed through the findings. A connection to the theory of constructivism and ma ka hana ka ʻike is also seen through the findings uncovered in this study. The narrative expressed of Kumu Laimana's journey with the use of Minecraft to teach kaikuaʻana and kaikaina concepts applied to the notion of an individual forming knowledge by attaching value to information gained and the entire process of knowledge formation happened through ma ka hana ka ʻike.

Recommendations for Future Research

Presented are six areas identified as recommendations for future research, which can be categorized as further research and expanded research. One recommendation, similar to the Galbis-Córdova et al. (2017) proposed qualitative approach to a completed quantitative study, would be to conduct this study with a quantitative or mixed methods approach. Additionally, in the following notions could be considered to further the perspectives of the findings:

- Conduct a study with either an alternative methodology, alternative triangulations or additional resynthesis of data collected.

- Conduct a study to focus on and develop a continuum of the choices undertaken and insights obtained by the instructor over a period of time and multiple courses experienced, essentially timelining the findings extracted through this study.

- Conduct a study to focus primarily on student perceptions through surveys, interviews, or focus groups to capture the student narrative of the overall experience and preferences.

- Conduct a study to focus primarily on the document review of student writing to identify and categorize student experiences and learnings resulting from utilizing Minecraft to teach kaikuaʻana and kaikaina concepts.

- Conduct a study to focus on particular in-case comparative analysis perhaps comparing data from different sources such as the instructor, the student, and maybe a third-party observer.

Additionally, the following research considerations could be raised by future expanded research:

- Conduct a study that utilizes Minecraft to teach other Hawaiian values or concepts or other educational content within the setting of a Hawaiian immersion or focused charter school, or perhaps from an instructor who is not ethnically of the cultural content.

- Conduct a comparative study of two cases, or meta-analysis, in which Minecraft is used to teach course content utilizing the model offered in this study as a framework for comparison or identifying common threads among a multitude of studies. This could be studied across multiple cultures as well.

Implications of Needs within Practice

There were also implications of needs within practice that arose from this study. Following are potential needs within the practice of utilizing a video game learning technology to teach kaikua'ana and kaikaina concepts to college students:

- A need for technical issue and server administrator support. The instructor within this study was able to identify and recruit individuals to assist with technical issues and server administration through personal relationships. For another instructor to replicate this particular case there may be a need for the institution to provide these identified supports if the instructor is in need of such assistance.

- A need for professional development experiences that target the model presented through this research as well as other learnings toward the use of Minecraft in academia.

- A need for educational systems to consider the creation of systems wide approaches and supports to further video game learning experimentation and facilitation.

Reflecting as a Researcher

The journey for me as a researcher within this study has been one of self-discovery as much as it has been of researching the topic of utilizing Minecraft to teach kaikua'ana and kaikaina concepts. There was no doubt that the quest for data and insight regarding this topic really excited me as the findings could prove to be instrumental in advancing alternative education pedagogy such as video game learning among Hawaiian cultural concepts within education. But the experience of researching a topic for which I am closely connected to the practice as well as the individuals pushing the envelope, allowed me to learn how difficult it can be to serve as an unbiased and neutral party within the research process. I feel that if the necessary research methodology is developed and carried out then it is very possible for those

close to a topic or to research participants to contribute to academic knowledge in a meaningful way. The contributions made here are an example of how close connections can be a value rather than a detriment.

Conclusion

The intent of this study was to provide insight into the experience of an instructor pushing the bounds of higher education through utilizing Minecraft, a video game learning technology, to enhance the experience of students learning a specifically Hawaiian governance concept of kaikua'ana and kaikaina relationships. The value of video game learning, specifically Minecraft, was not the focus of this study as the literature has pointed toward evidence on both sides of this debate. Through this examination a breadth of experiential themes emerged and were analyzed to develop a model of one instructor's journey and direction forward. This developed model can serve as a tool for other practitioners to further the use of alternative forms of pedagogy and connection to students at large.

Appendix A Instructor Interview Questions

Instructor Interview Questions

Interview #1-Discussing 1st Iteration

- What led you to choose Minecraft? (Probes: *Tell me mor*e about what interested you most? *Could you elaborate* on how you finally decided to incorporate this video game?)

- What were your students like in the 1st iteration? (Probes: *Did you have* mostly tech savvy students? *Tell me more* about your students backgrounds and experience?

- What were the benefits, obstacles and learnings in the 1st iteration using Minecraft? (Probes: *Tell me more* about why that particular strategy was helpful to your students? *Could you elaborate* on that example of success?)

- How did you or did you not see the learning happen in Minecraft? (Probes: *Tell me more* about why you feel that way? *Could you elaborate* on that example you just mentioned?)

- Is there any further information you would like to share that we have not covered? (Probes: *Tell me more* about that? *Could you elaborate* on that experience you just mentioned?)

Interview #2-Discussing 2nd Iteration

- What led you to continue with Minecraft? (Probes: *Tell me mor*e about what interested you most? *Could you elaborate* on how you finally decided to incorporate this video game?)

- What were your students like in the 2nd iteration? (Probes: *Did you have* mostly tech savvy students? *Tell me more* about your students backgrounds and experience?)

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- What were the benefits, obstacles and learnings in the 2nd iteration using Minecraft? (Probes: *Tell me more* about why that particular strategy was helpful to your students? *Could you elaborate* on that example of success?)

- How did you or did you not see the learning happen in Minecraft? (Probes: *Tell me more* about why you feel that way? *Could you elaborate* on that example you just mentioned?)

- Is there any further information you would like to share that we have not covered? (Probes: *Tell me more* about that? *Could you elaborate* on that experience you just mentioned?)

Interview #3-Preparation and Planning for Course (conduct before course starts)

- How was the planning for this upcoming iteration of using Minecraft to teach kaikuaʻana and kaikaina concepts to your students? (Probes: *Tell me more* about why you feel that way? *Could you elaborate* on that example you just mentioned?)

- What aspects in Minecraft will be the most important for the students to learn the concepts? (Probes: *Tell me more* about why you feel that way? *Could you elaborate* on that example you just mentioned?)

- Is there any further information you would like to share that we have not covered? (Probes: *Tell me more* about that? *Could you elaborate* on that experience you just mentioned?)

Interview #4-Course Debrief/Analysis (conduct during course)

- How do you feel the class is progressing in the learning of kaikuaʻana and kaikaina concepts? (Probes: *Tell me more* about why you feel that way? *Could you elaborate* on that example you just mentioned?)

- Are there aspects of your approach that might change and if so what would that be? (Probes: *Tell me more* about why that particular strategy was helpful to your students? *Could you elaborate* on that example of success?)

- Is there any further information you would like to share that we have not covered? (Probes: *Tell me more* about that? *Could you elaborate* on that experience you just mentioned?)

Interview #5-Course Debrief/Analysis (conduct during course)

- How do you feel the class is progressing in the learning of kaikuaʻana and kaikaina concepts? (Probes: *Tell me more* about why you feel that way? *Could you elaborate* on that example you just mentioned?)

- Are there aspects of your approach that might change and if so what would that be? (Probes: *Tell me more* about why that particular strategy was helpful to your students? *Could you elaborate* on that example of success?)

- Is there any further information you would like to share that we have not covered? (Probes: *Tell me more* about that? *Could you elaborate* on that experience you just mentioned?)

Interview #6-Reflection of Course (conduct after course)

- What were the benefits, obstacles and learnings from the 3rd iteration using Minecraft? (Probes: *Tell me more* about why that particular strategy was helpful to your students? *Could you elaborate* on that example of success?)

- How did you or did you not see the learning happen in Minecraft? (Probes: *Tell me more* about why you feel that way? *Could you elaborate* on that example you just mentioned?)

- Is there any further information you would like to share that we have not covered? (Probes: *Tell me more* about that? *Could you elaborate* on that experience you just mentioned?)

Appendix B Consent to Participate in Research Project

Project title: An Exploration of Teaching Hawaiian Concepts of Kaikuaʻana and Kaikaina through Minecraft

Aloha! My name is Kaimana Estrella and you are invited to take part in a research study. I am a graduate student at the University of Hawaiʻi at Mānoa in the Department of Education. As part of the requirements for earning my doctoral degree in Educational Practice, I am doing a research project.

What am I being asked to do?
If you participate in this project, I will meet with you for interview(s) online via Zoom.

Taking part in this study is your choice.
Your participation in this project is completely voluntary. You may stop participating at any time. If you stop being in the study, there will be no penalty or loss to you.

Why is this study being done?
The purpose of this project is to gather information surrounding the journey an instructor takes in order to utilize a video game like Minecraft to affect the learning of Hawaiian governance concepts such as kaikuaʻana and kaikaina to college students.

What will happen if I decide to take part in this study?
Each interview will consist of 3-5 open ended questions. It will take one to two hours to complete each interview.
The interview questions will include questions like, "What led you to choose Minecraft? "How did you or did you not see the learning happen in Minecraft?".

Only you and I will be present during the interview. With your permission, I will audio-record the interview so that I can later transcribe the interview and analyze the responses.

What are the risks and benefits of taking part in this study?
I believe there is little risk to you for participating in this research project. You may become stressed or uncomfortable answering any of the interview questions or discussing topics with me during the interview. If you do become stressed or uncomfortable, you can skip the question or take a break. You can also stop the interview or you can withdraw from the project altogether.

There will be no direct benefit to you for participating in this interview. The results of this project may help improve the instructor awareness of utilizing Minecraft in teaching Hawaiian concepts.

Privacy and Confidentiality:
I will keep all study data secure in a locked filing cabinet in a locked office/encrypted on a password protected computer. Only my University of Hawaiʻi advisor and I will have access to the information. Other agencies that have legal permission have the right to review research records. The University of Hawaiʻi Human Studies Program has the right to review research records for this study.

After I write a copy of the interviews, I will erase or destroy the audio-recordings. When I report the results of my research project, I will not use your name unless you would like your

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University of Hawai'i
Consent to Participate in a Research Project
Truc Nguyen, Principal Investigator
R. Kaimana Estrella, Other Investigator

Project title: An Exploration of Teaching Hawaiian Concepts of Kaikua'ana and Kaikaina through Minecraft

report the results of my research project, I will not use your name unless you would like your name to be used. I will not use any other personal identifying information that can identify you. If you do not want your name to be used, I will use pseudonyms (fake names) and report my findings in a way that protects your privacy and confidentiality to the extent allowed by law.

Questions:
If you have any questions about this study, please call or email me at [808-646-9653 & re3@hawaii.edu]. You may also contact my advisor, Dr. Truc Nguyen, at [808-956-6507 # & nguyen@hawaii.edu]. You may contact the UH College of Education at 808-956-7849 or osas@hawaii.edu. to discuss problems, concerns and questions; obtain information; or offer input with an informed individual who is unaffiliated with the specific research protocol. Please visit http://go.hawaii.edu/jRd for more information on your rights as a research participant.

If you agree to participate in this project, please sign and date this signature page and return it to: Kaimana Estrella

Keep a copy of the informed consent for your records and reference.

Signature(s) for Consent:

I give permission to join the research project entitled, *"An Exploration of Teaching Hawaiian Concepts of Kaikua'ana and Kaikaina through Minecraft".*

Please initial next to either "Yes" or "No" to the following:

____ Yes   ____ No   I consent to be audio-recorded for the interview portion of this research.

Name of Participant (Print): _____

Participant's Signature: _____

Signature of the Person Obtaining Consent: _____

Date: _____

<div align="center">Mahalo!</div>

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<div align="center">123</div>

Appendix C Letter from Instructor Expressing Willingness

Letter from Instructor Expressing Willingness
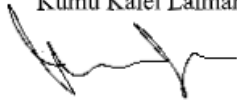
To Whom it May Concern:

I hereby express willingness to share existing educational practice documentation in the form of deidentified student journals and reaction papers from students having participated in HWST 245 with the use of Minecraft to teach kaikuaʻana and kaikaina concepts.

Sincerely,

Kumu Kalei Laimana

[to be signed]

Appendix D Example of Class Observation Notes

Class Observation Notes

Session #4

Minecraft Observation Protocol:

Log into Minecraft server that class is utilizing and the Zoom classroom. If students are

put into breakout rooms, the researcher will be placed in a breakout room by the instructor.

Field Notes will include but is not limited to detailed descriptions of participants (except

for names) and their environment, researcher's comments, and quotes.

The amount of Look Fors observed will be denoted by an "x".

Look Fors	Field Notes
Asking for help (student to student): • xxxx	• instructor opened up class and is welcoming students in, asked a student that usually has issues logging into MC if he was able to get on • instructor giving some insight on group dynamics
Giving help/teaching (student to student): • xxxxxxxxxxx	• one student is still having issues logging onto the game, he feels bad and doesn't want to take time away from the class or kumu to help him
Accepting help/learning (student to student): • xxxxx	• there were some server issues, but it has been resolved • no one is talking • kumu suggested a student turn off their video to save some bandwidth
Having concern for others (student to student): • xxxx	• students are talking and strategizing how to complete the course • one student is asking to see if a less able student is there and is willing to help him get there
Stepping into a seemingly different role (kaikuaʻana to kaikaina and vice versa): • x	• the older, less able student is asking how to walk • the other students are being very patient and helping him out • younger kaikuaʻana taking lead and patiently giving guidance and instructions • the team had a success and was able to help guide the older less able player and the team felt good and accomplished after succeeding

	- leader is saying they should stick together - this is a very complex maze and server admins are working quickly to install things/traps as they go - the kaikuaʻana, a student, is taking a very involved leadership role and is exhibiting a lot of patience and strategy in the group, through all the ups and downs - they are without their usual leader, and they are talking together a lot more than usual - constant communication is happening, very cordial and thoughtful of each other, risks are being taken by the leader and the group is ok with the fails, though the leader doesn't know the way she is not giving up and trying to think of new possibilities of what it could be - going back for a student that was behind a little - they have completed one part of the challenge and very happy with each other's efforts - lot's of patience and kindness being shown to all players

Appendix E Table of First and Second Cycle Coding Connected to Instructor Choices and

Course Outcomes

First and Second Cycle Coding Connected to Instructor Choices and Course Outcomes

First Cycle Data Codes	Second Cycle Pattern Codes
Data Codes from Instructor Interviews: "TWO WHO WERE PRETTY GOOD AT MINECRAFT ALREADY…TWO MORE WHO WERE SOMEWHAT GOOD WITH MINECRAFT, THE REST WERE PRETTY NEWBIES", "[NEWBIES] HAD EITHER VERY LITTLE EXPERIENCE, EITHER THEY KNEW SOMEBODY WHO PLAYED THE GAME, THEY WATCHED THEIR KIDS PLAY THE GAME, AND THEN I HAD A FEW ABSOLUTELY NEVER SAW THE GAME BEFORE", MAKEUP OF SKILL LEVEL VARIES WITH USUALLY ONLY FEW STUDENTS BEING EXPERIENCED PLAYERS, "MAJORITY OF THE CLASS IT WOULD BE THERE, THEY'RE PROBABLY IN THE NOVICE, AND LOWER CATEGORY OF COMPETITION", FEW STUDENT EXPERTS IN MINECRAFT, "THE NEXT TWO, AT LEAST THEY HAD COMPUTER EXPERIENCE, RIGHT? SO THEY WEREN'T AFRAID OF TECHNOLOGY OR PROBABLY PLAYED OTHER COMPUTER GAMES. SO, YOU KNOW, THEY WEREN'T SO INTIMIDATED BY IT. AND SO THEY, YOU KNOW, GOT INTO IT AND STARTED, YOU KNOW, SHOWING, SHOWING THAT THEY DID HAVE THE EXPOSURE BY BUILDING THEIR HOUSES AND, AND BUILDING IT WELL", VARYING LEVELS OF COMPUTER OR VIDEO GAME EXPERIENCE, PRIOR LEARNING OF KAIKUAʻANA KAIKAINA MEANT TO PROVIDE BLUEPRINT FOR IN GAME INTERACTIONS, "ALREADY PREPARED THEM ABOUT KAIKUAʻANA KAIKAINA SO THEY UNDERSTOOD THAT AND SO AS ONE STUDENT MENTIONED AT THE END OF THE CLASS IN HER REFLECTION WAS HAD WE NOT LEARNED THAT, WE PROBABLY WOULD NOT HAVE BEEN SUCCESSFUL IN THE PROJECT", "THEY ELIMINATE THE FLOW OF IDEAS UP BECAUSE THEY HAVE TO BE THE PERSON IN CHARGE AND THE PERSON MAKING THE DECISION", "A PERSON WHO CAN SWITCH ROLES REALLY EASILY AND ALLOW SOMEONE WHO WAS A JUNIOR TO THEM OR KAIKAINA TO THEM TO AT LEAST LEAD, EVEN IF TEMPORARILY, BECAUSE THEY ARE THE BEST ONES ALLOWS A GROUP TO REACH ITS FULLEST POTENTIAL", "THAT BOND BETWEEN KAIKUAʻANA KAIKAINA RIGHT, THAT STARTS TO EXIST THE TRUST LEVEL, OR, YOU KNOW, WHAT I CALL	VARYING STUDENT SKILL LEVELS DESIGN OF INSTRUCTION CONTENT PRIOR TO MINECRAFT SESSIONS PURPOSE OF MINECRAFT EXERCISE INDICATORS OF LEARNING LEVELS OF LEARNING LEARNING PROGRESSION MINECRAFT EXPERIENCES ROLE AND ROLE SWITCHING EXPERIENCES OLDER GENERATIONAL STUDENT EXPERIENCES MINECRAFT GAMEPLAY AND CHALLENGES ACHIEVING AS A GROUP OBSERVING LEARNING SHARED STUDENT EXPERIENCES SUPPORT SUPPORT FOR STUDENTS SUPPORT FOR INSTRUCTOR

MANA, STARTS TO INCREASE", KAIKUAʻANA KAIKAINA LEARNING INVOLVES PROGRESSION, "SWITCHING THAT ROLE FROM KAIKUAʻANA TO KAIKAINA, AMONG PEOPLE YOU'VE ALREADY ESTABLISHED A RELATIONSHIP WITH IS VERY DIFFICULT IN OUR SOCIETY TODAY", "THERE'S PROTOCOLS THAT NOW HAVE TO BE OBSERVED BY EVEN BOTH SIDES", "PATIENCE", "IT SHOWS UP IN YOUR FACIAL EXPRESSION", "PURPOSE OF THIS EXERCISE WAS TO GET GROUP EFFICIENCY UP HIGH TO DO THAT THEY NEEDED TO EXERCISE KAIKUAʻANA KAIKAINA PROTOCOLS", "IT WASN'T THAT I WANTED THEM TO LEARN HOW TO PLAY MINECRAFT", "PEOPLE DON'T MIND ENGAGING…BUT THEY JUST DON'T WANT TO BE EMBARRASSED AND THEY DON'T WANT TO BE MADE TO FEEL BAD", "THERE'S MORE APPRECIATION WHEN YOU OVERCOME SOMETHING, RIGHT, WHEN YOU LEARN SOMETHING YOU WORK THROUGH", ["IF THEY ARE DOING IT RIGHT, THEY SHOULD HAVE A HIGH LEVEL OF ACHIEVEMENT BUT THEN AGAIN EVERY GROUP IS DIFFERENT AND EVERY GROUP WILL HAVE POTENTIALS OF HOW HIGH THEY CAN GO DEPENDING ON THEIR SKILL LEVEL", "IF THEY ARE NOT HAVING FUN, THEN I WOULD SUSPECT THAT THEY ARE NOT IMPLEMENTING THE PROTOCOLS OF KAIKUAʻANA KAIKAINA", STUDENTS HAVING FUN AND GETTING ALONG IS ONE INDICATOR OF PROPER KAIKUAʻANA AND KAIKAINA BEHAVIOR, "WHAT I'M WATCHING FOR LATER IS HOW MUCH DOES THE GROUP WORK TOGETHER", "IF THEY'RE ALL ARE WORKING TOGETHER, IF THEY'RE ALL SMILING, THEY LAUGHING AND THEY JOKING WITH EACH OTHER AND EVERYTHING…AND THEY ALSO GIVE THOSE SUBTLE PRAISES, RIGHT, TO THEIR LEADER, THAT ACKNOWLEDGEMENT", "THAT TRUST OR MANA HAS BEEN ACHIEVED, A LEVEL HAS RISEN FROM WHEN THEY INITIALLY GOT TOGETHER FOR THE BEGINNING OF THE SEMESTER OR WHATEVER THAT THAT HAS RAISED QUITE A BIT AND MORE AT THE COMMITMENT TO THEIR GROUP", PROPER KAIKUAʻANA KAIKAINA BEHAVIOR CAN BE ASSESSED THROUGH THE WAY A GROUP INTERACTS TOGETHER, "IN THIS SITUATION, TO GET THE GRADE REQUIRES THEM

TO ENGAGE, RIGHT, IN MEANINGFUL REALTIONSHIPS. THAT'S WHAT AT THE SAME TIME, THAT IS WHAT MAKES SOME STUDENTS UNCOMFORTABLE", STUDENTS ARGUING IN AN INDICATOR OF POOR KAIKUAʻANA KAIKAINA IMPLEMENTATION, "THEY START YELLING AT EACH OTHER, AND EVERYTHING AND THAT, AND YOU PROBABLY HAVE ZERO COOPERATIVE EFFICIENCY", "WHEN DOES WINNING, OR ACHIEVING SUPERSEDE? YOU KNOW, THE PROTOCOLS OF CARING, RIGHT? AND MAKING SURE, NO, NO ONE IS LEFT BEHIND KIND OF THINKING, RIGHT? THIS IS WHERE I THINK IT COUNTS, RIGHT? AND THAT'S WHAT I'M LOOKING FOR? DID YOU SACRIFICE TEAM MEMBERS TO GET TO YOUR GOAL? OR DID YOU, YOU KNOW, ACTUALLY HELP THEM ALONG, SO THAT EVERYBODY ACHIEVES IT AND GET THE GOAL, DEFINITELY WILL TAKE YOU A LITTLE BIT LONGER, AND SOMETIMES A LOT LONGER. OKAY. BUT TO ME, WHEN EVERYBODY FINISHES, THAT'S, THAT'S GOOD. BECAUSE THAT'S WHAT YOU WANTED TO HAVE, IS THAT PROTOCOLS IN PLACE, THAT THEY'RE THERE NOW, I MEAN, IT'S PLAIN TO SEE THAT THEY'RE APPLYING, YEAH, THEY'RE SACRIFICING THE GOAL, RIGHT? OR AT LEAST, THE QUICK ACCOMPLISHMENT OF THE GOAL FOR, HEY, ALL OF US NEEDS TO ACCOMPLISH IT.", SACRIFICING GAMEPLAY ACHIEVEMENT TO HELP GROUP MEMBERS, GROUP COOPERATION OUTCOME PARAMOUNT TO GAMEPLAY GOALS, "I REALLY DON'T CARE, WHETHER THEY KNOW HOW TO GET IN A BOAT, GET OUT OF A BOAT, OR BUILD A HOUSE OR DO THOSE KINDS OF THINGS, ALTHOUGH THEY NEED THOSE SKILLS TO SURVIVE, RIGHT? IF THEY ALL DIED, BUT THEY WERE TALKING TO EACH OTHER AND EVERYTHING, AND THEY FAILED ANYWAY, I THINK THAT'S A SUCCESS.", COMMUNICATING IS SUCCESS, COMMUNICATION AS AN INDICAITOR OF LEARNING, COMMUNICATION AS AN INDICAITOR OF LEARNING, "LET'S SAY THEY ACCOMPLISH A GOAL, BUT THEY NEVER TALKED TO EACH OTHER. THAT'S COMPARED TO THEY FAILED AND THEY DIDN'T TOUCH ANY OF THE GOALS, BUT THEY TALK WITH EACH OTHER? I WOULD CONSIDER THE

SECOND ONE, THE ONE WHERE THEY FAILED, MORE SUCCESSFUL.", NOT COMMUNICATING IS A FAIL, "THE CRITERIA WAS ALWAYS, IS, THAT I'M LOOKING FOR, AND WHEN YOU SAY LEARNING OCCURRED, YEAH, MY SIGNAL FOR LEARNING EVIDENCE FOR LEARNING OCCURRED, THE COMMUNICATION, ARE THEY COMMUNICATING. AND IT'S NOT JUST POLITE COMMUNICATION, RIGHT? IT'S REAL, AUTHENTIC, ENGAGING COMMUNICATION, WHERE THEY GO HELP, I NEED HELP. OKAY. AND THEN LATER ON YOU'RE OH THANKS, RIGHT? THERE'S APPRECIATION, THERE'S NORMAL ENGAGEMENT THAT YOU WOULD FIND AMONG FRIENDS", LOOKING FOR AUTHENTIC COMMUNICATION, AUTHENTIC COMMUNICAITON AS AN INDICATOR FOR LEARNING, "MAKES OTHERS AWARE OF THEIR WEAKNESS, AND BECOMES VULNERABLE. ANOTHER PERSON SAYS, "LOOK, I WAS THERE BEFORE", BOOM, AND I HELPED THAT AND BOOM, NOW THEY'RE ALL EDIFIED, RIGHT? THE PERSON WHO DOES A HELPING, RIGHT, BECAUSE THEY UNDERSTAND EXACTLY WHERE THAT PERSON WAS COMING FROM, AND THE PERSON WHO RECEIVES THE HELP, RIGHT, BECAUSE, AND THERE'S SOMETHING ABOUT ONCE YOU RECEIVE HELP FROM SOMEBODY, YOU KNOW, YOUR TRUST IN THAT PERSON RISES, AND, YOU KNOW, AND AS IT RECIPROCATES, BOTH WAYS, JUST RISES, RISES, SO THAT COMMUNICATION BECOMES FREER, AND MORE AUTHENTIC.", BEING VULNERABLE LEADS TO TRUST IN GROUPS, VULBERABILITY AND TRUST IS PART OF AUTHENTIC COMMUNICATION, ["THE LEADER WHO CAME BACK TO GET THE STRAGGLER THAT WAS REASSURING, THEN SEEING OTHERS WHO WERE, YOU KNOW, HELPING OUT THE LEADER, SO WASN'T ONLY, WHEN THE LEADER WASN'T THERE, OTHERS TOOK THE PLACE AND HELPED OUT THOSE WHO ARE STRAGGLING IN THEIR, IN THE QUEST TO GET TO CERTAIN BEACONS. RIGHT? THAT'S, THAT'S WARM. THAT'S A KIND OF LIKE, OKAY, GOOD, THAT'S HAPPENING. BUT THAT'S STILL FIRST LEVEL, RIGHT?", HELPING OUT AS A FIRST LEVEL OF PROTOCOL LEARNING, "THE LEVEL OF TRUST THAT EXISTS IS WHEN THEY START TALKING FREELY TO EACH OTHER. SO THERE WAS ONE

POINT WHERE, BECAUSE NORMALLY, THEY'RE JUST
KIND OF QUIET, RIGHT? AND THEN WHEN
SOMEBODY CALLED I NEED HELP, AND THEN, YOU
KNOW, SOMEBODY GOES AND GETS THEM, AND
THEN THEY CONTINUE ON.", TALKING FREELY AND
CALLING OUT FOR HELP, TRUST AND TALKING
FREELY PART OF SECOND LEVEL OF PROTOCOL
LEARNING, "THERE WAS ONE PART WHERE THEY
WERE ON BOATS. AND THERE WAS A, I THINK
JENNY HAD PUT A SYSTEM, A PROGRAM IN, THAT
ELIMINATED ANY GROUND OBJECTS, RIGHT,
BECAUSE OF THE LAG THAT WAS OCCURRING IN
THE GAME PLATFORM. SO, WHAT WOULD HAPPEN,
BOATS WERE CONSIDERED ONE OF THOSE GROUND
OBJECTS. SO THEY'D BE PADDLING IN THEIR
BOATS TO CERTAIN PLACE, AND ALL OF A SUDDEN,
THE BOATS WOULD DISAPPEAR. AND NOW
THEY'RE ALL SWIMMING, AND EVERYTHING. AND
IT WAS KIND OF INTERESTING, BECAUSE THEY
DIDN'T UNDERSTAND THAT THAT WAS A
TECHNICAL GLITCH OR THAT WAS TO SOLVE A
TECHNICAL PROBLEM, BUT WAS CAUSING THEM
REAL PROBLEMS, RIGHT. AND, I HEARD THEM
SHOUT OUT, "OH, THOSE DAMN ZOMBIES TOOK
OUR BOATS", RIGHT. AND THEN SOMEONE ELSE
SAYS, "DON'T WORRY, I HAVE EXTRA BOATS",
RIGHT? SO THEY COVERED EACH OTHER. SO THEY
WERE THERE TRYING TO THINK PROACTIVELY
WHAT MIGHT HAPPEN? AND YEAH, THEY COVERED
EACH OTHER, WHEN SOMEONE DIDN'T HAVE
SOMETHING, THERE'S, "OH, I GOT SOME FOOD, I'LL
SHARE IT WITH YOU", YOU KNOW, AND SO THEY
WOULD GIVE THEM THE FOOD OR STUFF THAT
THEY NEEDED. SO, YOU KNOW, THOSE, AND
USUALLY WERE, SOME OF THOSE WHO DIDN'T
HAVE THE MOST SKILL OF BUILDING, SO THEY
COLLECTED IT, AND THEN THAT WAS KIND OF
THEIR CONTRIBUTION. RIGHT? THAT THEY FELT,
BECAUSE IF THEY COULD NOT CONTRIBUTE, I
THINK THAT WOULD ALSO BE A PROBLEM, RIGHT,
OF INFERIORITY, RIGHT, KIND OF THING. IF IT'S NOT
HANDLED WELL. AND THAT BECOMES ANOTHER
PROBLEM. BUT EVEN IF THEY CAN CONTRIBUTE IN
THE SMALLEST WAY, THAT MAKES EVERYBODY
FEEL LIKE THEY'RE PART OF THE TEAM KIND OF
THING", EVERY MEMBER CONTRIBUTING WHAT

THEY CAN, WANTING TO CONTRIBUTE AND
TRUSING OTHERS TO PROVIDE IS HIGHER LEVEL OF
PROTOCOL LEARNING, "AND MY DEFINITION OF
SUCCESSFUL IS THAT THEY LIKED EACH OTHER,
THAT THEY HAD RAPPORT, THAT THEY HAD
APPRECIATION AND NOT WHETHER THEY WON OR,
OR WHO DID WHAT. BUT THEY DID, IN THEIR MIND,
THE BEST THEY COULD WITH THEIR GROUP.",
["THERE WAS DEFINITELY A PROGRESSION. YOU
KNOW, I DON'T EXPECT MUCH AT THE BEGINNING
JOURNALS. IN FACT, I EXPECT TO SEE MORE
FRUSTRATION MORE MECHANICAL, REPORTING,
YOU KNOW, JUST REPORTING WHAT THEY DID
KIND OF THING. BUT THEN AS WE GOT CLOSER
TOWARDS THE END, THERE, YOU CAN SEE THE
REFLECTION, RIGHT, YOU CAN SEE HOW THEY
START TO INTERNALIZE THE EXPERIENCE,
INTERNALIZE WHAT THEY'VE LEARNED AND ARE
ACTUALLY ENGAGED IN CHANGING BEHAVIOR,
RIGHT, THEIR BEHAVIOR. I THINK THAT'S ONE OF
THE INDICATORS. I MEAN, ONE OF THE THINGS YOU
DON'T WANT TO SEE IS WHEN THEY WANT TO
CHANGE OTHER PEOPLE'S BEHAVIOR. RIGHT? IF I
SEE THAT THAT'S KIND OF A RED FLAG, RIGHT,
THAT MEANS THEY'RE NOT THERE YET. BUT WHEN
IT STARTS TURNING IN AND INWARD, AND THEY
START SEEING THEIR, THEIR FLAWS, RIGHT? OR
JUST, HOW THEY COULD HAVE BEEN BETTER, THEN
THEN THAT DEFINITELY LEARNING TAKING
PLACE", STUDENT WRITING BEGINNING WITH
REPORTING AND RECALL AN ENDING WITH
BEHAVIORAL ANALYSIS AND EXPERIENCED
GROWTH, "I WAIT FOR IT TO SEE THAT THEY HAVE
INTERNALIZED, AND THEY HAVE COME TO NEW
AWARENESS", "THERE HAS TO BE A TRUST LEVEL
THAT HAS TO BE BUILT UP. AND THAT'S WHY I
THINK, YOU KNOW, THAT TRUST LEVEL AS THEY
STARTED UNDERSTANDING THE MATERIAL
PURPOSE OF THE COURSE AND READING ALL
THOSE ARTICLES, THAT TRUST LEVEL STARTED TO
BUILD UP TO THE POINT WHERE, OKAY, THEY
KNEW THEY'RE STRUGGLING AND, YOU KNOW,
THIS IS LIKE YOU GUYS NEED TO TALK AGAIN,
BECAUSE I'M SURE I'VE TOLD THEM THAT BEFORE,
BUT BECAUSE IT WAS AT A CRUCIAL POINT.
WHERE OKAY, I'M WILLING TO HUMBLE MYSELF IN

THEIR MINDS RIGHT, AND TAKE THIS LEAP.",
BUILDING OF TRUST, VALUING THE PROCESS, "THE
OTHER ONE, WHERE THEY HAVE ACHIEVED THE
GOAL, BUT DID NOT COMMUNICATE TO EACH
OTHER IN ANY WAY, THAT I COULD SEE, THAT
KAIKUAʻANA KAIKAINA EXISTED, AND I WOULD BE
CONCERNED. RIGHT? BECAUSE EITHER THEY ALL
WERE GOOD, SO THEY DIDN'T HAVE TO TALK TO
EACH OTHER, WHICH MISSES THE POINT. AND MY
SOLUTION TO THAT IS CREATE AN EVEN GREATER
CHALLENGE, RIGHT, THAT GOES AND EXCEEDS
THEIR ABILITY, INDIVIDUAL ABILITIES, SO THAT
NOW THEY HAVE TO DEPEND UPON EACH OTHER
AND WORK TOGETHER.", NEEDING TO ADVANCE
THE CHALLENGE IF GROUPS ACHIEVING IN THE
GAME BUT NOT COMMUNICATING, ASSESSING AND
ADJUSTING TO THE NEEDS OF THE GROUPS TO
ENSURE COMMUNICATION, INEXPERIENCE WITH
MINECRAFT FORCED ROLE SWITCHING FROM
KAIKUAʻANA TO KAIKIAINA, "THEY ARE IN THE
KAIKUAʻANA ROLE MOSTLY.AND THEY'RE NEVER
ASKED TO SWITCH ROLES", ROLE SWITCHING
COMMON AND SOMETIMES DIFFICULT CONCEPT,
"THEY DIDN'T HAVE TO ENDURE ANY OF THOSE
UNCOMFORTABLE THINGS THAT THEY REMEMBER
GROWING UP WHEN THEY WERE KAIKAINA", "ONE
WAS VERY FAMILIAR WITH MINECRAFT, AND HE
SORT OF BECAME THE LEADER. AND AT THE SAME
TIME, HE WAS THE YOUNGEST OF ALL OF OUR
STUDENTS. BUT HE WAS REALLY RESPECTFUL AND
ACTUALLY VERY QUIET. SO FOR HIM, THE
CHALLENGE WAS TAKING THE LEAD, RIGHT? HE
WASN'T PUSHY OR FORCEFUL IN ANY OF THAT
RESPECT, BUT THEN HE HAD TO LEAD. AND HE DID
IT, I THINK, YOU KNOW, IN THE, FOLLOWING
KAIKUAʻANA KAIKAINA PROTOCOL, BY, YOU
KNOW, JUST HELPING, HELPING HIS TEAM,
ESPECIALLY THE ONES WHO WERE STRUGGLING,
LIKE THEY WOULD BE FALLING BEHIND. HE
WOULD MAKE SURE THAT THEY WERE THERE, AND
THEY WERE SO APPRECIATIVE THAT HE TOOK
THAT TIME, WHILE OTHER STUDENTS WERE
PROBABLY GETTING IMPATIENT WITH THOSE WHO
COULDN'T MATCH, COULDN'T DO THE SIMPLE
MECHANICS OF THE GAME. HIS LEADERSHIP WAS
PRETTY GOOD.", "I THINK THEY HAVE THE

THEORETICAL KNOWLEDGE, RIGHT, THE LEARNING KNOWLEDGE. AND THEREFORE WHEN I SAY LEARNING, BUT THEY UNDERSTAND HOW IT'S SUPPOSED TO WORK, AND THEY AGREE WITH IT. WHAT THEY'RE FINDING IN MINECRAFT IS THE APPLICATION OF IT IN REAL TIME, SO YES, I'M A KAIKUAʻANA NORMALLY, NOW I'M A KAIKAINA, THEY'RE DEALING WITH THE DIFFICULTY OF THAT .", HAVING DIFFICULTY DEALING WITH ROLE SWITCHING, CHALLENGE OF ROLE SWITCHING, "BUT THEY'RE LEARNING, I MEAN, THAT'S WHAT THEY'RE, THEY SEEM TO BE SAYING, THEY'RE LEARNING A LOT, RIGHT? BECAUSE A LOT OF THEM WERE KAIKAINA THAT ONE TIME, MAYBE IN SOME PLACES ARE, BUT IT'S WHERE IT'S APPROPRIATE, OR AT LEAST STANDARD, BECAUSE A PERSON THAT'S YOUR BOSS OR LEADER WHO IS OLDER THAN YOU HAVE MORE EDUCATION, DESERVES TO BE THERE, SO TO SPEAK. BUT NOW IT'S GOT SWITCHED. AND YOU HAVE SOMEBODY 20 YEARS YOUNGER THAN YOU DOESN'T HAVE THE AGE OR EXPERIENCE OR RANK, EXCEPT, YOU KNOW, MAYBE EDUCATION OR WHATEVER. SO WHAT DO YOU DO? RIGHT, NOW THEY HAVE TO SWITCH. SO THERE'S MORE, I GUESS THERE'S MORE, I DON'T KNOW, PERSONAL CONFLICTS, RIGHT, THAT THEY HAVE TO DEAL WITH. BUT THEY'RE DEALING WITH IT, YOU KNOW, THEY'RE RECOGNIZING IT. AND THEY'RE IMAGINING THAT, WOW, I REALLY HAVE TO, YOU KNOW, WATCH THAT AND DO, AND IN THE SAME PROCESS. THEY ARE ALSO LEARNING HOW TO BE A BETTER KAIKUAʻANA, WHEN THE HAT STITCHES BACK. SO I THINK I THINK THIS CLASS IS DOING REALLY WELL IN THAT DEPARTMENT.", DEALING WITH PERSONAL CONFLICTS OF ROLE SWITCHING, OLDER GENERATIONAL STUDENTS RESISTANCING GAMEPLAY INITIALLY, OLDER GENERATIONAL STUDENTS DISPLAYED MORE FUSTRATIONS AND NEEDED MORE HAND-HOLDING, REALIZING RESPONSIBILITY MOTIVATED OLDER GENERATIONAL STUDENTS TO APPLY THEMSELVES MORE, OLDER GENERATIONAL STUDENTS OBSERVED TO HAVE EXPERIENCED MORE DIFFICULTIES, "FOR OLDER MINDS THERE'S A LOT OF RESISTANCE", "TAKING IT SERIOUSLY, SPENDING TIME, LIKE HOW THEY WOULD WRITE A

PAPER, HOURS OF PRACTICE", "UNTIL THEY REALIZE THAT THEY'RE KAIKAINA AND THEY HAVE A RESPONSIBILITY, AND THEY START PUTTING IN THE TIME, THEY ACTUALLY PUT MINIMUM TIME", "KNEW THAT THEY WOULD NEED A LOT OF HAND HOLDING", SOME OLDER GENERATIONAL STUDENTS SHOWED DELAYED ENGAGEMENT, "AND THEN THE OTHER TWO, WHO HAD NO EXPERIENCE AND AS ONE STUDENT SAID, ACTUALLY HATED VIDEO GAMES, RIGHT. AND THEY STRUGGLED, AND AT FIRST YOU COULD SEE IN THEIR INITIAL CHALLENGES THAT, YOU KNOW, THEY WERE REALLY UNDERPERFORMING, RIGHT. WHICH WAS OKAY. THE IDEA IS NOT TO HAVE SUPER MINECRAFT, THAT GAMERS, BUT JUST TO SEE HOW THE DYNAMICS WORKED OUT. SO YEAH, AGE DIFFERENCE SEEM TO PLAY A BIG, BIG ROLE IN THEIR ABILITY TO ACCEPT AND PLAY THE GAME.", OLDER GENERATIONAL STUDENTS STRUGGLING TO ACCEPT AND PLAY MINECRAFT, PROGRESSION OF OLDER GENERATIONAL STUDENTS DELAYED BY RESISTANCE TO GAME AND RELIANCE ON GROUP, "SO, OLDER THEY WERE THE MORE RESISTANT THEY WEREN'T TOO ACCEPTING THE GAME. AND THEREFORE THE MORE RESISTANT THEY WERE TO SPEND TIME AND LEARN THE GAME. BUT AS THE CHALLENGES BECAME MORE AND MORE FOCUSED AND CRITICAL, THEN THEY REALIZED THAT STRATEGY, AND A LOT OF THEM EMPLOYED THE STRATEGY, DON'T ASK ANY QUESTIONS, JUST WAIT TILL, YOU KNOW, AFTER, THEN THEY CAN ASK SOMEBODY ELSE. AND THEY REALIZED THAT THAT STRATEGY WASN'T GOING TO WORK ANYMORE. AND SO THEN THEY FINALLY STARTED ASKING EACH OTHER FOR HELP. AND WHEN THEY GOT IT, I THINK THEY LEARNED THAT, WOW THAT WAS SO EASY, JUST ASKED HIM, GOT THE THING AND I DIDN'T HAVE TO WAIT TILL AFTER CLASS, RIGHT? AND GOT IT DONE.", OLDER GENERATIONAL STUDENTS INITIALLY RESISTANT AND SLOW TO ASK FOR HELP, "THROUGH THE FIRST PART, SOME GROUPS STRUGGLE, BECAUSE THEY'RE ALL LEARNING AND THAT'S EXPECTED", PARTICIPATING IN CHALLENGES HELPS TO UNIFY GROUP MEMBERS, GROUP STRUGGLE AFFORDS OPPORTUNITIES FOR

STUDENTS TO EMBRACE NEW ROLES IN KAIKUAʻANA KAIKAINA PROTOCOL, MINECRAFT PLATFORM PRVOIDED HIGHER ENGAGEMENT THROUGH INTRICATE CHALLENGES, "IT'S REALLY, AN INTERESTING DYNAMIC, BECAUSE IT GOES AGAINST THE DYNAMIC OF THIS OR AGAINST THE THINKING OF INDEPENDENCE, RIGHT? BE YOUR OWN BOSS, PULL UP YOURSELF BY YOUR BOOTSTRAPS KIND OF THING. YOU DON'T NEED TO DEPEND ON ANY OTHER. BUT, YOU KNOW, YOU CAN DO THAT, BUT YOU KNOW, AS I SAY, NO MAN IS AN ISLAND. AND FOR SURE, IT'S A LOT EASIER WHEN YOU CAN COOPERATE IN A GROUP, BUT WE HAVE THIS FIERCE IDEOLOGY, ESPECIALLY AMONG THE OLDER CLASSMATES WITH JUST BEING INDEPENDENT. THAT PREVENTS HIM FROM ASKING SIMPLE QUESTIONS OF THE GROUP AND HELP.", OLDER GENERATIONAL STUDENTS INITIALLY PREFEREING INDIVIDUAL ACHEIVEMENT, "SO THE LEVEL OF MINECRAFT THAT THEY ACHIEVED FOR THAT GROUP IS, IT WAS TO ME THE HIGHEST THEY COULD HAVE ACHIEVED, AND, YOU KNOW, I DON'T KNOW, IT'S KIND OF SAD, WELL I DON'T KNOW IF IT IS SAD TO SAY, BUT WHEN WE THINK ABOUT IT, A GROUP CAN ONLY MOVE FORWARD AS FAST AS THE SLOWEST MEMBER, RIGHT? SOMETIMES YOU CAN MOVE A LITTLE FASTER WHEN THEY HELP THAT MEMBER AND WHATEVER, BUT THERE IS A LIMITATION THERE.", GROUP ACHIEVING LIMITED BY MEMBERS, GROUP ACHIEVEMENT IN MINECRAFT IS BASED ON GROUP CAPABILITIES, "I THINK THEY'RE PROGRESSING VERY WELL. AT LEAST WITH MINECRAFT. I CAN ACTUALLY SEE IT. SO I CAN SEE THEM IN ACTION. AND THEN THEIR WRITE UPS THEIR JOURNALS THAT THEY TURN IN EVERY DAY, THEN THEY ALSO MENTIONED IT ALL, ALWAYS. AND WHAT'S REALLY GOOD IS THAT THEY ARE AWARE SO THEY ARE WRITING THEIR RESPONSES ON KAIKUAʻANA KAIKAINA, AND THE FRUSTRATIONS THAT THEY HAVE. RIGHT. IN SWITCHING HATS, RIGHT FROM KAIKUAʻANA TO KAIKAINA KINDA THING.", SEEING THE EXPERIENCES OF KAIKUAʻANA KAIKAINA LEARNING HAPPENING IN MINECRAFT AND THROUGH READING OF STUDENT JOURNALS,

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OBSERVATIONS OF LEARNING THROUGH GAMEPLAY AND WRITINGS, "YOU CAN KIND OF SEE IT HAPPENING, OR AT LEAST YOU CAN SEE, YOU KNOW, IF ONE OF THE CONVERSATIONS START HAPPENING, WHEN THEY WHEN IT'S FREE AND ENGAGING, AND THERE IS NO HESITATION IN ASKING FOR HELP OR GETTING HELP. AND ALSO, WHEN YOU SEE THEM, YOU KNOW, THEY'RE TOLD RIGHT OF CONVERSATION, WHEN THERE IS NO TENSION, RIGHT? JUST, I GUESS THE BEST WORD IS ALL YOU HEAR IS KŌKUA. RIGHT? AND THEY FEEL THAT, THAT, THEN THEN, YOU KNOW, OKAY, I THINK WE'RE GETTING, BUT YOU DON'T KNOW FOR SURE. RIGHT? ALL YOU KNOW, IS THAT THE STUFF THAT YOU'RE SEEING INDICATES THAT THAT IS HAPPENING. NOW, WHETHER IT IS HAPPENING, YOU WON'T FIND OUT UNTIL YOU HAVE ACTUAL DISCUSSIONS, OR IT APPEARS IN THEIR WRITINGS. RIGHT. AND SO THAT ALL HAPPENED AS WE DEBRIEF AND AS WE, AS THEY STARTED TURNING IN THEIR FINAL PAPERS. YOU CAN SEE IT CLEAR IN THERE.", SEEING ONLY BEGINNINGS OF THE LEARNING OF KAIKUA'ANA KAIKAINA THROUGH MINECRAFT OBSERVATIONS, VALIDATING THE LEARNING THROUGH DEBRIEFS AND STUDENT WRITINGS, LEARNING ASSESSED THROUGH MINECRAFT OBSERVATIONS, DEBRIEFS AND STUDENT WRITINGS, YOUNGER TECH SUPPORT PROVIDED ADDED OPPORTUNITES FOR ROLE SWITCHING LEARNING, YOUNGER TECH SUPPORT DISPLAYING PROPER KAIKUA'ANA KAIKAINA PROTOCOL EASED DEVELOPMENT, OLDER GENERATIONAL STUDENTS TOOK TIME TO EXPRESS GRATITUDE TO YOUNGER TECH SUPPORT TEAM, TECH SUPPORT KNOWING PROPER PROCOTOL ELIMINATED UNCOMFORTABLENESS ASSOCITED WITH NEGATIVE EXPERIENCES OF KAIKUA'ANA KAIKAINA, YOUGER TECH SUPPORT EXHIBITING PROPER KAIKUA'ANA KAIKAINA BEHAVIOR PRODUCED POSITIVE STUDENT FEEDBACK, "THEY WERE ALL BEING ELEMENTARY AGE, CHILDREN, NOW YOU HAVE THAT SWITCH OF YOUNGER CHILDREN BEING KAIKUA'ANA", YOUNGER TECH SUPPORT NOT SHOWING JUDGEMENT AND PROVIDING DIGNITY WAS KEY FOR OLDER GENERATIONAL STUDENTS, "JENNY'S

CLASS, THEY ALREADY UNDERSTOOD THE PRINCIPLE KAIKUAʻANA KAIKAINA, SO THEY SPOKE RESPECTIVELY TO THE OLDER STUDENTS", OLDER GENERATIONAL STUDENTS TOOK TIME TO EXPRESS GRATITUDE TO YOUNGER TECH SUPPORT TEAM, "OLDER STUDENTS WHO, WHEN I THOUGHT WERE THROUGH DEBRIEFING, THEY STOPPED ME AND THEY SAID, I WANT TO THANK OUR KUMU FROM JENNY'S CLASS", ENSURING TECH SUPPORT VITAL TO TROUBLE SHOOT ACCESS ISSUES AND PROVIDING NEEDED ADDITIONAL IN-GAME SUPPORT, "HAVE ENOUGH TECH SUPPORT", "ADDING JENNY'S CLASS OF MINECRAFT STUDENTS WAS ACTUALLY PERFECT SCENARIO", "BUT I THINK THE OTHER THING IS, YOU KNOW, SO IF I DIDN'T HAVE JULIAN AND TYTUS, HELPING TO STRUCTURE THE GAMES, I THINK IT MIGHT, MIGHT HAVE BEEN WAY DIFFERENT.", HELPING TO STRUCTURE GAMES, SERVER ADMIN HELP VALUED, "ALTHOUGH THOSE ARE OKAY, THEY LEARNED A LITTLEBIT, IT WASN'T KIND OF ENGAGEMENT THAT MINECRAFT ALLOWED, "NOBODY CAN HIDE IN THIS GAME, RIGHT? NOBODY CAN CHOOSE A REALLY EASY PROJECT THAT'S NOT GOING TO ENGAGE THEM", STUDENTS SEEN ENGAGING IN MINECRAFT ACTIVITIES, "THE WHOLE CLASS RISES HIGHER, A LOT HIGHER THAN THAT [EARLIER] PROBLEM BASED"

Data Codes from Documents Review: ["WE HAD ONE MEMBER WHO CLEARLY WOULD BE DEFINED AS THE LEADER SINCE HE HAS HAD EXPERIENCE WITH THE GAME. THEN NEXT TWO OTHERS WHO WERE A LITTLE QUIETER BUT WERE GREAT TEAM PLAYERS, AND ANOTHER PERSON WHO I REALLY CLASHED WITH.", IDENTIFYING MINECRAFT ABILITY AMONG STUDENTS, VARYING LEVELS OF MINECRAFT EXPERIENCE, "IN MY HEAD WE WERE BOTH LEARNING HOW TO PLAY THE GAME AT THE SAME TIME, SO IT WAS A FAIR, RIGHT? WRONG. IN REALITY I HAD THE SLIGHT ADVANTAGE OF GROWING UP AT THE SAME TIME TECHNOLOGY WAS GREATLY DEVELOPING. TECHNOLOGY IS NOT MY FAVORITE THING, BUT IT IS SOMEWHAT EASIER TO LEARN THINGS ON SINCE I GREW UP WITH IT. MY EXPERIENCE WITH THE GAME WAS LIMITED,

BUT IT WAS MORE THAN WHAT SHE HAD.", BEING
AWARE OF DIFFERING EXPERIENCE LEVELS LEADS,
"OVERALL, I AM VERY GRATEFUL TO HAVE HAD
THIS EXPERIENCE AND OPPORTUNITY WITH THE
CLASS. NOT ONLY DID IT HELP US EXAMINE THE
KAIKUAʻANA KAIKAINA RELATIONSHIP BUT MORE
IMPORTANTLY, WE DID THAT WHILE HAVING FUN.
WHILE SOME DID NOT SEEM TO HAVE A BLAST
PLAYING MINECRAFT, THIS CHILDHOOD GAME FOR
ME WAS FUN TO RELIVE. I GOT FIRST-HAND
EXPERIENCE WITHIN THE KAIKUAʻANA KAIKAINA
RELATIONSHIP AND EVEN GOT TO SERVE AS
KAIKUA'ANA, WHICH IS A RARE ROLE FOR ME AT
THIS PRESENT TIME.", EXPERIENCING A RARE
KAIKUAʻANA ROLE THROUGH MINECRAFT,
OPPORTUNITY OF ROLE SWITCHING EXPERIENCE,
"THE IDEA OF THE GAME WAS TO EXAMINE THE
KAIKUAʻANA/KAIKAINA RELATIONSHIP.
MINECRAFT DEFINITELY REVERSED THE ROLES.
SPEAKING FOR MYSELF I RELIED HEAVILY ON MY
OTHER CLASSMATES IN KNOWING WHAT TO DO.",
EXAMINING KAIKUAʻANA KAIKAINA
RELATIONSHIPS IN MINECRAFT, REVERSING OF
ROLES IN MINECRAFT, ROLE SWITCHING, "I
LEARNED THE IMPORTANCE OF COMMUNICATION
AND MAKING DECISIONS DURING THIS GAME. I
THOUGHT ABOUT THE RELATIONSHIPS WHEN THE
ROLES ARE REVERSED. WHEN AGE ISN'T THE
ELDEST, BUT KNOWLEDGE MAY COME BEFORE. I
AM IN NO WAY AN EXPERT AT THIS GAME, BUT I
DO HAVE THE BASICS OF THE GAME DOWN.",
REVERSING ROLES FROM AGE TO KNOWLEDGE,
"MY LEADERS ARE SO HELPFUL AND PATIENT. IT
MUST SEEM LIKE NO-BRAINERS FOR THEM, BUT
YET THEY'RE SO GENTLE AND GRACIOUS WITH
THEIR HELP . THIS IS VERY DIFFERENT FOR ME…
TO BE ON THE OTHER END OF NEEDING SUCH
ASSISTANCE ALL THE TIME. WHAT IS THE SAYING?
"YOU'RE ONLY AS STRONG AS YOUR WEAKEST
MEMBER". I REALLY THOUGHT IT WAS GREAT HOW
WE WORKED TOGETHER TODAY WELL OTHERS
WERE WORKING HARD AT TRYING TO GET ME UP
TO SPEED AND I WAS TRYING MY BEST TO KEEP UP.
SO THANKFUL FOR THE SUPPORT OF THE TEAM!",
SWITCHING ROLES A NEW EXPERIENCE, ROLE
SWITCHING, "THERE WAS AT TIMES WHERE I FELT

LIKE THE KAIKUAʻANA, ALTHOUGH IT WAS VERY BRIEF TIMES, AND THE MAJORITY OF THE TIME I FELT LIKE THE KAIKAINA WHILE PLAYING THIS GAME. I THINK BEING PUT INTO HARD SITUATIONS IN THE GAME, WITH OTHER THREATS LIKE ZOMBIES, SKELETONS, AND SPIDERS, AND ON TOP OF THAT THE FRUSTRATION OF INTERNET CONNECTIVITY AND THAT PLAYING A HUGE ROLE INTO THINGS, I FEEL LIKE TESTING OUT THE KAIKUAʻANA AND KAIKAINA RELATIONSHIP ON THIS PLATFORM WAS A SUCCESS.", RISING TO KAIKUAʻANA AT TIMES FROM KAIKAINA, ROLE SWITCHING, "FOR ME, THE OPPORTUNITY OF EXPERIENCING THE KAIKUA`ANA – KAIKAINA RELATIONSHIP OUTSIDE OF MY `OHANA AND IN A CLASSROOM VENUE WITH CHANGING ROLES BASED ON PLAYING THE VIDEO GAME, MINECRAFT, WAS INTRIGUING.", SWITCHING ROLES IN GAME, ROLE SWITCHING, "WHEN OUR TEAM MERGED WITH ANOTHER TEAM, A PERSON THAT HAD THE KNOWLEDGE AND EXPERIENCE PLAYING THE GAME IMMEDIATELY STEPPED UP AS KAIKUA`ANA. WITH HER ENERGIC AND POSITIVE ATTITUDE IN GUIDING THE TEAM WE IMMEDIATELY ACCEPTED HER ROLE. THERE WAS CONFUSION AND CHAOS FOR THE FIRST FEW SESSIONS BECAUSE THE KAIKUA`ANA WAS LEFT TO LEAD AND MULTI-TASK DUE TO THE TEAM'S LACK OF EXPERIENCE. SHE WAS AN EXCELLENT KAIKUA`ANA BECAUSE WE TRUSTED HER ABILITY TO LEAD THE TEAM, SHE WAS AN ACTIVE LISTENER, COMMUNICATED WITH APPROPRIATE TEMPERAMENT, WAS PATIENT, HUMBLE, AND CARING.", KAIKUAʻANA LEADING WITH TRUST AND POSITIVE ATTTITUDE, POSITIVE EXPERIENCE WITH KAIKUAʻANA ROLE, "DURING MY TIME IN MINECRAFT, WE WERE GIVEN CHALLENGES AND A LOT OF US WOULD BECOME THE KAIKUA'ANA OR THE KAIKAINA DEPENDING ON THE SITUATION AND SKILLS THAT IS NEEDED.", SWITCHING ROLE BASED ON SKILL OR SITUATION NEED, ROLE SWITCHING, "IF YOU WANT YOU AND YOUR TEAM TO BE SUCCESSFUL, THEN YOU NEED TO BE OR HAVE A SERIOUS LEADER WHO IS WILLING TO BE THERE FOR EVERYONE AND WILL DO ANYTHING TO MAKE SURE THAT EVERYONE IS ON TRACK.

KAIKUAʻANA AND KAIKAINA DOESN'T ALWAYS
MEAN THE OLDER ONES HELP THE YOUNGER ONES
BUT IT COULD ALSO BE THE OTHER WAY THE
KAIKAINA HELPING THE KAIKUAʻANA IN THEIR
SUCCESS AS WELL. THIS IS ALSO SOMETHING THAT
IS IMPORTANT TO KNOW AND KEEP IN MIND.
SOMETIMES THE OLDER ONES JUST NEED THAT
GUIDANCE FROM THE YOUNGER ONES AND FOR
THEM TO LEARN AND TAKE SOMETHING AWAY
FROM ALL OF THIS.", LEARNING ROLE SWITCHING
THAT CAN OCCURE IN KAIKUAʻANA KAIKAINA,
LEARNING KAIKUAʻANA KAIKAINA, "BUILDING A
SUSTAINABLE COMMUNITY REQUIRES A GOOD
LEADER. OUR KAIKUAʻANA IN OUR GROUP IS NOT
LITERALLY THE OLDEST ONE, SHE IS SOMEONE
WHO IS GOOD IN PLAYING THE GAME AND HAS THE
SKILLS TO LEAD THE GROUP IN AN EFFECTIVE WAY
AND EFFICIENT MANNER. SELECTING OUR
KAIKUAʻANA OR LEADER USING THIS CONCEPT IS
VERY DIFFERENT IN THE WAY WE SELECT OUR
CURRENT LEADERS IN TODAY'S GENERATION. WE
DID NOT DEMOCRATICALLY SELECT OUR LEADER
OR KAIKUAʻANA, IT IS HER INITIATIVE, HER SKILLS
AND KNOWLEDGE THAT PUT HER INTO HER
POSITION. IN THIS RELATIONSHIP, THE CONCEPT OF
EARNING YOUR POSITION IS DETERMINED BY
YOUR ABILITIES, INITIATIVE, CHARACTER AND
HOW MUCH MANA YOU EARNED.", LEARNING ROLE
SWITCHING ASPECT OF KAIKUAʻANA KAIKAINA,
LEARNING ABOUT SELECTION PROCESS OF
KAIKUAʻANA BASED ON ABILITIES, LEARNING
KAIKUAʻANA KAIKAINA, ROLE SWITCHING,
"DECIDING TO HELP HER WAS A DAUNTING
THOUGHT AT FIRST BUT IT NEEDED TO BE DONE.
THE NEXT TIME WE PLAYED MINECRAFT I DID
EVERYTHING IN MY POWER TO BE A BETTER
TEAMMATE . I HAD MORE PATIENCE, COMPASSION,
AND EVEN CHANGED HOW I PLAYED TO ENSURE
SHE WOULD NOT GET LEFT BEHIND. ANYTIME I
WOULD START TO GET A LITTLE INPATIENT, I
WOULD REMIND MYSELF THAT I AM IN THE ROLE
OF KAIKUAʻANA AND SHE IN KAIKAINA . BEING IN
THE KAIKUAʻANA POSITION MEANT I NEEDED TO
BE PONO. I HAD A KULEANA TO USE MY
KNOWLEDGE AND SKILLS TO HELP HER, AND
PATIENCE WAS THE KEY TO SUCCESS.",

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ATTEMPTING TO BE A BETTER TEAMMATE AFTER UNDERSTANDING ROLE HELD, ROLE SWITCHING, "WHILE I WAS THE OLDEST IN THE CLASS, I WAS ALSO THE MOST INEXPERIENCED WHEN PLAYING MINECRAFT. IN THIS SENSE, I FEEL THAT I WAS MORE OF THE KAIKAINA, YOUNGER SIBLING, WHILE THE OTHERS WERE MY KAIKUANA, OLDER SIBLINGS THAT I COULD LEARN FROM. SO THE FACT THAT THEY WERE TECHNICALLY MY KAIKAINA, DUE TO THE KNOWLEDGE THEY HELD AND THE ABILITY TO LEARN QUICKLY, THEY BECAME MY KAIKUANA.", OLDER STUDENT SEEING ROLE SWITCHED KAIKAINA BASED ON INEXPERIENCE, ROLE SWITCHING, LEARNING KAIKUA'ANA KAIKAINA, "DURING THIS PERIOD, I SERVED AS THE KAIKUA'NA. ALTHOUGH I AM THE YOUNGEST, MAY HAVE THE LEAST AMOUNT OF EDUCATION, AND WE ALL STAND IN THE SAME POSITION AS A STUDENT, MY EXPERIENCE WITHIN MINECRAFT TOPS THE OTHERS. WHILE THERE ARE OLDER PEOPLE WHO COULD LEAD THE GROUP, AS SOME WOULD ASSUME THE OLDEST LEAD, MY EXPERIENCE WAS TAKEN INTO CONSIDERATION INTO ACHIEVING CHALLENGES AND GOALS EFFECTIVELY. MANY PROTOCOLS WERE EXAMINED BUT IT WAS FOUND THAT IT WOULD BE MOST EFFICIENT IF I LEAD THE GROUP SINCE I COULD TEACH MANY AND HELP MANY WITH THE GAME. ALONG WITH THE TASKS SUCH AS BEACON POINTS, IT CAN BE ANALYZED THAT MY KNOWLEDGE OF THE USE OF COORDINATES AND THE "F3 BUTTON." THIS DYNAMIC WORKED OUT PERFECTLY FINE SINCE THE KAIKAINA WERE ABLE TO FOLLOW MY INSTRUCTIONS LEGITIMATELY. THIS DOES NOT MEAN CORRECTLY, AS THEY WOULD MESS UP AND I WOULD ENACT MY ROLE TO HELP LEAD THEM OUT OF THE MESS UP, BUT THEY WOULD FOLLOW IT TO THE BEST OF THEIR MIGHT.", REALIZING THE NEED TO TAKE ON THE ROLE OF KAIKUA'ANA BECAUSE OF EXPERIENCE HELD, ROLE SWITCHING, LEARNING KAIKUA'ANA KAIKAINA, "IT WAS NOT UNTIL SEAN WAS NOT ABLE TO PARTICIPATE IN CLASS THAT I BECAME LEADER AND HAD TO HELP GUIDE THE CLASS TO THE LAST TWO BEAMS AND THEN BACK HOME, THAT I WAS CHALLENGED THE MOST IN THIS

EXERCISE. IT ALSO GAVE ME A NEW APPRECIATION FOR SEAN AND THE SKILLS HE HAS IN BEING A LEADER. I TRIED MY BEST TO FOLLOW IN HIS EXAMPLE AND MAKE SURE EVERYONE WAS ABLE TO FOLLOW WHERE I WAS LEADING.", STEPPING IN TO THE ROLE OF LEADER WHEN NEEDED, ROLE SWITCHING, "MINECRAFT WAS ALL ABOUT THE EXPERIENCE, WHAT ROLE YOU FIND YOURSELF IN, AND HOW YOU ADDRESS THE KULEANA OF THAT ROLE. THIS IS A LARGER LESSON OF KAIKUAʻANA-KAIKAINA THAT CAN BE APPLIED TO LIFE. TO LET GO OF NEEDING CONTROL AND FOCUS ON YOUR KULEANA, THEN YOU WILL BE IN A STATE OF BALANCE AND HAPPINESS.",FINDING YOUR ROLE IN THE MINECRAFT EXPERIENCE, LEARNING KAIKUAʻANA KAIKAINA, "THE MISTAKES MADE BY THE GROUP WERE MINOR SUCH AS GETTING LOST, DYING BY ACCIDENT, DROWNING, ETC., SO IN THE END, MY TRUE LEVELS OF ANGER WERE ALMOST NONEXISTENT. HOWEVER, THERE WERE MOMENTS WHEN I WISH EVERYTHING WOULD GO SMOOTHER, BUT AN OUTBURST OF THIS WISH WOULD RESULT IN NOTHING BUT NEGATIVITY AND LOSS OF INEFFICIENCY. TO KEEP THE OTHERS IN CHECK, WE JUST PROVIDE STEPS TO ACHIEVE THE NEXT STEP AND THEN TO FINALLY ACHIEVE THE GOAL.", UNDERSTANDING ASPECTS OF KAIKUAʻANA ROLE, LEARNING KAIKUAʻANA KAIKAINA, "DURING THIS MINECRAFT TRIP, WE DID MANY CHALLENGES FROM ESCAPE ROOMS TO BEACON POINTS. IN THE ESCAPE ROOMS, WE WOULD HAVE TO DO CHALLENGES THAT ARE REFLECTIONS OF OUR ROLE AS KAIKUA'ANA AND KAIKAINA. FOR EXAMPLE, I WOULD BE PLACED IN A ROOM, AND IN ORDER FOR US ALL TO ESCAPE IT WOULD BE UP TO ME TO GET CORRECT ANSWERS FROM EVERYBODY TO UNLOCK THE PUZZLE TO FREE US. FOR EXAMPLE, WHEN WE WERE IN ONE ESCAPE ROOM. I HAD TO ASK, FOR EXAMPLE, GINGER, WHAT COLOR IS HER ROOM, AND I WOULD SELECT THAT BUTTON WITH THE ANSWER IN MY ROOM. EACH QUESTION WOULD BE DIFFERENT BUT ONCE WE ALL WORKED TOGETHER AND SOLVED THE PROBLEMS, WE WOULD ALL ESCAPE. NOT ONLY DID TEAMWORK HELP US WIN THE CHALLENGE BUT I ALSO FEEL AS IF THESE CHALLENGES WERE SIMILAR TO THE

KAIKUA'ANA AND KAIKAINA RELATIONSHIP.
WHILE THE ENTIRE MINECRAFT EXPERIENCE WAS
SUPPOSED TO REFLECT THE ROLES, I THINK THIS
ESCAPE ROOM CHALLENGE SYMBOLICALLY
SHOWED THAT LITERALLY A MAXIMUM EFFORT
LEAD WITH A MAXIMUM EFFORT FOLLOW WILL
ALMOST ALWAYS SOLVE CHALLENGES AND
COMPLETE GOALS.", SEEING THE KAIKUA'ANA
KAIKAINA ROLES SYMBOLICALLY IN A MINECRAFT
CHALLENGE, LEARNING KAIKUA'ANA KAIKAINA,
"MY EXPERIENCE PLAYING WASN'T COMPLETELY
NEGATIVE THOUGH. I WAS HAVING A LOT OF FUN
ONCE I REALIZED THAT EVEN THOUGH I DON'T
KNOW WHAT I'M DOING IT'S OKAY TO ASK FOR
HELP. THAT SHAME I HAD FOR NOT KNOWING HOW
TO PLAY WAS AFFECTING HOW I FELT ABOUT THE
GAME.", IMPROVING EXPERIENCE ONCE OKAY TO
ASK FOR HELP, COMMUNICATION, "I BECAME
FIXATED ON TRYING TO WORRY ABOUT ALL THE
LITTLE DETAILS AND GETTING UPSET OVER A FEW
ADDED THINGS THAT WERE TO HELP ME. I FORGOT
THAT THIS GAME IS TO HELP ME FIGURE OUT THE
CONNECTIONS BETWEEN HAWAIIAN
GOVERNANCE. LEARNING ABOUT THE CHANGE
THAT CAN HAPPEN IN KAIKUA'ANA/KAIKAINA.
WHEN WE MUST PLAY AS A TEAM IN THIS CLASS
THE OLDEST PERSON IS NOT ALWAYS GOING TO BE
THE RIGHT PERSON IF A YOUNGER PERSON HAS
THE SKILL AND KNOWLEDGE OF THE TASK AT
HAND.", NEEDING TO REMEMBER THE PURPOSE OF
GAME IS TO LEARN KAIKUA'ANA KAIKAINA AND
NOT GET FIXATED ON LITTLE DETAILS IN
MINECRAFT, LEARNING KAIKUA'ANA KAIKAINA,
"NORMALLY, I WOULD JUST WAIT IN THE FRONT
WHILE ANOTHER TEAMMATE WOULD GO FIND HER
SINCE HE'S THE ONLY ONE WHO CAN GO BACK
AND FORTH WITHOUT GETTING LOST. I DECIDED
TO MAKE IT MY KULEANA TO HELP SUPPORT HER
IN ANY WAY EVEN IF THAT MEANT I WOULD BE IN
THE BACK WITH THE ZOMBIE THAT WAS CHASING
HER.", TAKING ON THE KULEANA TO HELP AND
SUPPORT A STRUGGLING TEAMMATE, TEAM
ASPECT, "I LEARNED THE IMPORTANCE OF
COMMUNICATION AND MAKING DECISIONS
DURING THIS GAME. I THOUGHT ABOUT THE
RELATIONSHIPS WHEN THE ROLES ARE REVERSED.

WHEN AGE ISN'T THE ELDEST, BUT KNOWLEDGE MAY COME BEFORE. I AM IN NO WAY AN EXPERT AT THIS GAME, BUT I DO HAVE THE BASICS OF THE GAME DOWN." COMMUNICATING AN IMPORTANT ASPECT, COMMUNICAITON, LEARNING KAIKUA'ANA KAIKAINA, "WE HAD TO GO INTO ALL THESE DIFFERENT ROOMS, AND I KEPT GETTING LOST OR NOT UNDERSTANDING THE REAL POINT OF THE EXERCISE. I WOULD FIND THE THINGS WE NEEDED TO BUT NOT UNDERSTAND WHAT WE WERE SUPPOSED TO BE DOING. I KNOW IT'S MY FAULT FOR NOT OPENING MY MOUTH, BUT SOMETIMES I HAVE A HARD TIME BECAUSE I FEEL LIKE I'M ALWAYS ASKING FOR HELP, AND I DON'T WANT TO IRRITATE ANYONE.", KEEPING QUIET TO NOT IRRATATE OTHERS, LEARNING TO COMMUNICATE, "ALTHOUGH IT WAS A TOUGH PATH TO LEAD EVERYONE FROM POINT A TO POINT B, I ENJOYED THE COMFORT OF HAVING THE REST OF THE CLASS WORKING TOGETHER AS A TEAM. NOT ALWAYS ARE WE SUCCESSFUL, BUT IF WE TAKE A SWORD SWING FOR A TEAM MEMBER, IT SHOWS A TRUE SACRIFICE OF THE GREATER GOOD. THOSE WERE ONE OF THE THINGS I LEARNED TODAY AND HOPE TO BE THE SHIELD TO PROTECT MY GROUP IN THE NEXT CHAPTER.", FOCUSING ON TEAM OUTCOME, TEAM FOCUS, "THIS ROUND, WE HAD TO REDO THE CHALLENGE, HOWEVER OUR GOAL WAS TO MAKE SURE EVERYONE MADE IT OUT TO THE FINISH LINE TOGETHER AND NOT SEPARATELY. KUMU LAIMANA MADE IT CLEAR FOR THAT REASON. ME, ON THE OTHER HAND, STILL WANTED TO BE ISOLATED FROM THE GROUP, BUT I GUESS, I WOULD SAY I MADE THE RIGHT DECISION BY HELPING MY GROUP. IT DID TAKE A LOT OF PATIENCE TO DIRECT MY GROUP MEMBERS.", RECEIVING INSTRUCTIONS FOR ALL TO FINISH TOGETHER, TEAM FOCUS INSTRUCTIONS, "DURING THE SECOND CHALLENGE, I WAS LEADING MY GROUP TOWARDS THE ROUTE WHERE WE HAD TO PUT FOUR DIFFERENT COLORED BLOCKS ON THE PODIUM. BEFORE, WE DIDN'T READ THE SIGNS IN EACH ROOM, WE JUST PASSED AND THOUGHT AS IF IT MEANT THAT WE WERE ALMOST TO THE THIRD ROUND. WHICH WE WERE, BUT IT ALSO MEANT THAT IT WAS A CLUE TO GET

TO THE OTHER SIDE OF THE GAME. SO THINKING ABOUT OUR MISTAKES FROM LAST CLASS, WE WERE ABLE TO SUCCESSFULLY GET TO THIRD ROUND AS A GROUP. BUT, I WILL SAY THAT WE DID NOT PASS THE THIRD CHALLENGE WHERE WE JUMPED OFF OF TREES. NOW, THAT IS A TOTALLY DIFFERENT STORY. ALL IN ALL, THE THING THAT MATTERS MOST IS WE WERE ABLE TO GUIDE OUR TEAM SAFE AND SOUND. WELL, FOR THE MOST PART.", LEARNING FROM MISTAKES, TEAM FOCUS, "ONE OF THE BEST CHALLENGES, I HAVE EVER PLAYED IN MY ENTIRE LIFE! I WAS ABLE TO SLAUGHTER AND UPHOLD MY TEAMMATES. ALTHOUGH, WE DIDN'T WIN, IT WAS WORTHWHILE TO BE A PART OF A TEAM THAT UPLIFTS EACH OTHER NO MATTER OUR DIFFERENCES.", ENJOYING THE GAME EXPERIENCE WITH TEAM, GAME ENJOYMENT, "MAPUANA WAS VERY HELPFUL ALSO BECAUSE SHE WOULD COME AND TRY TO GUIDE ME THROUGH THE COURSE. YUNA AND LARA KEPT ON GIVING ME SUPPORT AND EVEN THOUGH IT WAS FRUSTRATING, I WAS HAPPY TO PARTICIPATE TODAY. GREAT CLASSMATES AND GREAT CLASS SPIRIT WAS AWESOME!", RECEIVING HELP FROM TEAM, EXPERIENCING HAPPINESS IN CLASS, HAPPINESS IN CLASS, TEAM SUPPORT, "IT WAS FUN TO TRY AND COMPLETE THE TASKS SET FORTH BY KUMU. I REALLY APPRECIATE ALL THE HELP AND SUPPORT I RECEIVED FROM MY CLASSMATES AND KUMU JUJU, TYTUS AND KUMU. IT WAS FRUSTRATING IN THAT I COULD NOT HELP MY TEAM WIN THE FLAG. I LIKED THE CAMARADERIE THAT WAS EXHIBITED FROM MY CLASSMATES AND TRYING TO CHEER ME ON. IT MADE ME FEEL GOOD. BIG THANKS TO KUMU JUJU AND TYTUS IN TRYING TO HELP ME IN THE GAME AND KUMU FOR TALKING AND SUPPORTING ME TOO.", HAVING FUN COMPLETING TASKS IN GAME, LIKING CAMARADERIE IN CLASS, ENJOYING CLASS, "AFTER FINDING OUT WE WERE SUPPOSED TO DO THE CHALLENGE AS A CLASS, A WHOLE GROUP OF US STAYED AT SOMEONE'S HOUSE FOR THE NIGHT. WHEN IT TURNED DAY, WE STILL DIDN'T KNOW WHERE TO GO AND PEOPLE WEREN'T REALLY COMMUNICATING, KUMU TYTUS EVENTUALLY CAME TO GET US AND LED THE WAY. WE GOT

THERE BUT IT DIDN'T FEEL REWARDING OR ANYTHING OF THAT SORT SINCE WE DIDN'T DO IT OURSELVES.", LACKING COMMUNICATION EARLY ON, LIMITED COMMUNICATION, "TODAYS MINECRAFT ACTIVITY WAS SUPER FUN. THE FIRST TIME AROUND WAS PRETTY EASY, WE PRETTY MUCH JUST WALKED RIGHT IN. I PASSED EVERYONE WITHOUT ANY CONFLICT, I GUESS BECAUSE WE WERE ALL KIND OF CONFUSED ON WHEN TO START AND HILARIOUSLY, ONE OF OUR TEAMMATES GRABBED OUR OWN FLAG SO THE OTHER TEAM DIDN'T EVEN HAVE A CHANCE TO GET IT.", HAVING FUN IN GAME ACTIVITY, FUN, "IT WAS NICE TO BE PLAYING WITH AND LEARNING FROM BEING AROUND OTHERS. IT ALSO MADE ME FEEL LIKE I WAS NOT ALONE IN MY TECHNICAL ISSUES OR PERHAPS EVEN FEELING LIKE I WAS BEHIND. I THOUGHT IT WAS GOOD THAT WE DID THE RUNNING TO THE BEACONS AS A PAPA. IT PROMOTED COMMUNICATION AND WORKING TOGETHER. THIS HAS BEEN A GROWING AND STRETCHING EXPERIENCE, UNCOMFORTABLE AND EVEN FRUSTRATING WITH TECHNICAL ISSUES, THUS FAR.", LIKING THE TEAM ASPECTS OF ACTIVITIES, TEAM ASPECT, "IT'S INTERESTING BECAUSE OF THE EXPERIENCE OF THE DYNAMICS OF IT ALL. I FEEL LIKE WITHIN THIS JOURNEY IT FEELS LIKE LEARNING HAWAIIAN STYLE BY GOING WITH THE FLOW, WATCH AND LEARN, AND JUST TRY YOUR BEST WHEN ITS GO-TIME. HAWAIIAN PERSPECTIVE OF LEARNING IS IN PLAY IN LEARNING BY OBSERVING AND FOLLOWING. THE WHOLE LEARNING EXPERIENCE VERY MUCH REFLECTS HAWAIIAN GOVERNANCE IN BEING PATIENT, TRUSTING AND LEARNING FROM THE KAIKUANA.", LEARNING IN A HAWAIIAN STYLE, HAWAIIAN LEARNING STYLE, "EVEN THOUGH I AM NOT COMFORTABLE AT ALL I AM LEARNING PATIENCE WITH MYSELF AND I'M ESPECIALLY HAPPY TO BE LEARNING IN A WAY THAT FEELS VERY OLD SCHOOL HAWAIIAN VERSUS WRITING PAPERS AND PRESENTATIONS. I'M HAPPY TO EXPERIENCE, ITS A BALANCE.", LEARNING PATIENCE, HAPPY TO BE LEARNING IN A HAWAIIAN WAY, HAWAIIAN WAY OF LEARNING, PATIENCE, "I FELT IT WENT BETTER THAN THE LAST MINECRAFT

CHALLENGE DAY. I LEARN FROM THE LAST ONE
THAT I NEEDED TO TALK MORE AND ASK MORE
QUESTIONS. IT WAS MADE CLEAR THAT IN ORDER
TO SUCCEED THE CHALLENGE THAT EVERYONE
HAD TO MAKE IT THROUGH. WE REALLY STUCK
TOGETHER, LITERALLY SOMETIMES IT WAS LIKE
WE WERE RIGHT ON TOP OF EACH OTHER.",
NEEDING TO TALK MORE, HAVING THE WHOLE
TEAM MAKE IT THROUGH, COMMUNICATION KEY,
TEAM ASPECT, "MY LEADERS ARE SO HELPFUL
AND PATIENT. IT MUST SEEM LIKE NO-BRAINERS
FOR THEM, BUT YET THEY'RE SO GENTLE AND
GRACIOUS WITH THEIR HELP . THIS IS VERY
DIFFERENT FOR ME… TO BE ON THE OTHER END OF
NEEDING SUCH ASSISTANCE ALL THE TIME. WHAT
IS THE SAYING? "YOU'RE ONLY AS STRONG AS
YOUR WEAKEST MEMBER". I REALLY THOUGHT IT
WAS GREAT HOW WE WORKED TOGETHER TODAY
WELL OTHERS WERE WORKING HARD AT TRYING
TO GET ME UP TO SPEED AND I WAS TRYING MY
BEST TO KEEP UP. SO THANKFUL FOR THE SUPPORT
OF THE TEAM!", EXPERIENCING HELPFUL AND
PATIENT LEADERS, TEAM SUPPORT, "PLAYING IN
CLASS WITH CLASSMATES WAS GOOD BECAUSE
MY GROUP AND I HAD GOOD COMMUNICATION. IN
A KAIKUA'ANA AND KAIKAINA RELATIONSHIP
COMMUNICATION IS KEY. YOU CANNOT EXPECT
EVERYONE TO MOVE AS A UNIT, EVERYONE TO
BEHAVE APPROPRIATELY, EVERYONE TO BE ON
THE SAME PAGE WITHOUT COMMUNICATION. WE
HAD A TASK TO COMPLETE AS A GROUP WHERE WE
HAD TO HARVEST 640 CARROTS, BEETS, WHEAT,
AND MELONS. ALL FOUR OF US IN THE GROUP HAD
NEVER PLAYED THIS GAME BEFORE SO WE KNEW
NOTHING OF HOW TO COMPLETE THIS TASK.
DURING THE CLASS TIME WE WERE BROKEN OUT
INTO BREAK OUT ROOMS BY GROUPS AS KUMU
WENT BETWEEN ROOMS AND OBSERVED. I REALLY
LIKED HOW WELL MY GROUP AND I
COMMUNICATED DURING THIS TASK BECAUSE
ALTHOUGH WE KNEW NOTHING ABOUT PLAYING
THIS GAME AND GROWING CROPS, WE TALKED
THINGS OUT AND GATHERED IDEAS FROM EACH
OTHER. WE DECIDED TO BREAK THINGS UP
ACCORDINGLY: ONE PERSON WAS RESPONSIBLE
FOR FINDING BEET SEEDS, ONE PERSON WAS

RESPONSIBLE FOR FINDING MELON SEEDS, ONE PERSON WAS RESPONSIBLE FOR CLEARING LAND FOR THE CROPS, AND ONE PERSON WAS RESPONSIBLE FOR LOOKING UP HOW TO PLANT THE CROPS NEEDED AND GETTING THE MATERIALS TO BUILD THE APPROPRIATE TOOLS. BY THE END OF CLASS TIME WE HAD ABOUT 27 CARROTS, 10 WHEAT, 0 BEETS, AND 0 MELONS. THIS DOES NOT SOUND LIKE A SUCCESSFUL USE OF CLASS TIME. I HOWEVER THOUGHT IT WAS A GREAT USE OF CLASS TIME. WE TALKED THINGS OUT, EVERYONE WAS RESPECTFUL IN THE WAY THAT THEY WERE HANDLING THEMSELVES, AND WE WERE PRODUCTIVE IN FIGURING OUT THE BEST WAY TO EXECUTE THE TASK AS A TEAM. COMMUNICATION IS THE FOUNDATION OF ANY RELATIONSHIP AND VERY IMPORTANT IN KAIKUAʻANA AND KAIKAINA RELATIONSHIP .", COMMUNICATING IMPORTANT FOR KAIKUAʻANA KAIKAINA RELATIONSHIP, COMMUNICATION KEY, "WE LATER MOVED INTO CHALLENGES LIKE CAPTURE THE FLAG, WHERE STRATEGIC PLAY AND COMMUNICATION WAS IMPERATIVE. THINGS WERE CHAOTIC AS EVERYONE WAS TRYING TO TALK ALL AT ONCE AND COMMUNICATE TOGETHER, BUT THE COMMUNICATION WAS THERE SO THAT WAS GREAT.", BEING ABLE TO COMMUNICATE IMPERATIVE, COMMUNICATION IMPERATIVE, "THIS WAS THE MOST FRUSTRATING GAME PLAY FOR ME. I WAS LATE TO THE BREAKOUT ROOM BECAUSE I WAS PUT INTO THE WRONG BREAKOUT ROOM, AND BY THE TIME I ACTUALLY GOT IN EVERYONE WAS ALREADY GONE HEADING OVER TO THE OPPONENTS BASE CAMP TO GO AND CAPTURE THEIR FLAG. I COULDN'T HAVE BEEN ANY LONGER THAN 3-4 MINUTES LATE INTO THE BREAKOUT ROOM BUT I FELT LIKE THE TEAM DIDN'T TALK ABOUT ANY STRATEGY AT ALL AND JUST DECIDED TO GO FOR IT AS IF EVERY MAN WAS FOR HIMSELF. AS A NOVICE PLAYER I REALLY DON'T KNOW MUCH ABOUT THE GAME, SIMPLY THE BASICS. SO TO ME COMMUNICATION BETWEEN THE ENTIRE TEAM IS SO IMPORTANT BECAUSE…", LACKING COMMUNICATION AND STRATEGY IS FUSTRATING, FUSTRATION, "MY PATIENCE AND RESPECT WERE REALLY TESTED IN THIS GAME. HAD WE ALL HAD

TO PARTICIPATE IN CAPTURING THE FLAG MAYBE
THEY WOULD'VE BEEN MORE AWARE ON WHERE
EVERYONE ON OUR TEAM WAS, BUT BECAUSE
ONLY ONE PERSON NEEDED TO CAPTURE THE FLAG
AND THE REST DID NOT NECESSARILY MATTER I
FELT LIKE THE CHAOS OF EVERY MAN FOR
HIMSELF TO WIN THE GAME TOOK PRECEDENCE
OVER MAKING SURE THE KAIKUA'ANA AND
KAIKAINA RELATIONSHIP WAS PONO.", LACKING
AWARENESS AND TEAM FOCUS CAUSING PATIENCE
AND RESPECT TO BE TESTED, INDIVIDUALITY
LIMITING, "THERE WAS AT TIMES WHERE I FELT
LIKE THE KAIKUA'ANA, ALTHOUGH IT WAS VERY
BRIEF TIMES, AND THE MAJORITY OF THE TIME I
FELT LIKE THE KAIKAINA WHILE PLAYING THIS
GAME. I THINK BEING PUT INTO HARD SITUATIONS
IN THE GAME, WITH OTHER THREATS LIKE
ZOMBIES, SKELETONS, AND SPIDERS, AND ON TOP
OF THAT THE FRUSTRATION OF INTERNET
CONNECTIVITY AND THAT PLAYING A HUGE ROLE
INTO THINGS, I FEEL LIKE TESTING OUT THE
KAIKUA'ANA AND KAIKAINA RELATIONSHIP ON
THIS PLATFORM WAS A SUCCESS.", BEING PUT IN
HARD SITUATIONS PLAYED BIG ROLE, TESTING
KAIKUA'ANA AND KAIKAINA RELATIONSHIPS IN
MINECRAFT A SUCCESS, FINDING VALUE OF
MINECRAFT GAME, "TO SHOW YOU WHAT I MEAN,
IN-CLASS KUMU LAIMANA HAS ASSIGNED A GROUP
PROJECT THAT INVOLVES THE GAME MINECRAFT.
MINECRAFT IS A GAME YOU CAN PLAY WITH
OTHERS TO BUILD, CREATE, AND ADVENTURE. SO
THE PURPOSE OF THIS PROJECT IS, WE ARE
SUPPOSED TO WORK TOGETHER TO CREATE A
VILLAGE, COMMUNICATE WITH EACH OTHER, AND
NOT OFFEND ANYONE. AS SUCH, THE PROJECT HAS
GIVEN US MANY OPPORTUNITIES TO HELP ONE
ANOTHER OUT AND APPLY THE KAIKAINA AND
KAIKUANA PRINCIPLES TO OUR PROJECT.",
MINECRAFT GIVING MANY OPPORTUNITIES TO
APPLY KAIKUA'ANA AND KAIKAINA PRINCIPLES,
VALUE OF MINECRAFT, "FOR ME, THE
OPPORTUNITY OF EXPERIENCING THE
KAIKUA`ANA – KAIKAINA RELATIONSHIP OUTSIDE
OF MY `OHANA AND IN A CLASSROOM VENUE
WITH CHANGING ROLES BASED ON PLAYING THE
VIDEO GAME, MINECRAFT, WAS INTRIGUING.",

EXPERIENCING KAIKUA'ANA KAIKAINA RELATIONSHIPS IN MINECRAFT INTRIGUING, VALUE OF MINECRAFT, "WHEN OUR TEAM MERGED WITH ANOTHER TEAM, A PERSON THAT HAD THE KNOWLEDGE AND EXPERIENCE PLAYING THE GAME IMMEDIATELY STEPPED UP AS KAIKUA`ANA. WITH HER ENERGIC AND POSITIVE ATTITUDE IN GUIDING THE TEAM WE IMMEDIATELY ACCEPTED HER ROLE. THERE WAS CONFUSION AND CHAOS FOR THE FIRST FEW SESSIONS BECAUSE THE KAIKUA`ANA WAS LEFT TO LEAD AND MULTI-TASK DUE TO THE TEAM'S LACK OF EXPERIENCE. SHE WAS AN EXCELLENT KAIKUA`ANA BECAUSE WE TRUSTED HER ABILITY TO LEAD THE TEAM, SHE WAS AN ACTIVE LISTENER, COMMUNICATED WITH APPROPRIATE TEMPERAMENT, WAS PATIENT, HUMBLE, AND CARING.", EXHIBITING GREAT COMMUNICATION, COMMUNICATION, , "THE APPLICATION OF THE KAIKUA'ANA AND KAIKAINA SYSTEM IN MINECRAFT HAS BEEN UTILIZED POSITIVELY THROUGHOUT OUR TIME. OUR CLASS BECAME EXPERIENCED AND FRIENDLIER WITH OUR EACH OTHER. IN MY PERSONAL VIEW, IT WAS A GREAT OPPORTUNITY TO GROW WITH PEERS AND GROUP MATES TO EFFICIENTLY MANAGE TASKS AND GROUPWORK FOR OUR ASSIGNED CHALLENGES.", UTLIZING MINECRAFT TO APPLY KAIKUA'ANA KAIKAINA, VALUE OF MINECRAFT, I: "THE USAGE OF THE SYSTEM GIVES AN OPPORTUNITY FOR PEOPLE TO ADAPT, GROW AND LEARN NEW SKILLS OR TO GROW, UNDERSTAND AND BE EFFECTIVE WITH PRE-OBTAINED SKILLS AND KNOWLEDGE.", LEARNING OPPORTUNITY TO GROW KNOWLEDGE WITHIN GAME SYSTEM, VALUE OF MINECRAFT, I: "OUR CLASS'S INTERPERSONAL RELATIONSHIP BECAME MORE POSITIVE IN MINECRAFT. THE HANDS-ON EXPERIENCE THIS ENVIRONMENT GIVES A BETTER UNDERSTANDING OF OTHERS AND THE UNDERLYING LESSONS BEING TAUGHT. WITH THE VIRTUAL ENVIRONMENT, IT GIVES PEOPLE OPPORTUNITIES TO DO MORE FOR OTHERS WITH LITTLE RISK.", IMPROVING INTERPERSONAL RELATIONSHIPS IN MINECRAFT, GAINING BETTER UNDERSTANDING OF LESSONS THROUGH MINECRAFT EXPERIENCE, VALUE OF MINECRAFT, LEARNING KAIKUA'ANA KAIKAINA,

"WITH THE SERVER BEING ACCESSIBLE, WE CAN BUILD UP RELATIONSHIPS OUTSIDE OF CLASS THROUGH EXPLORATION, CREATION AND COMMUNICATION IN A VIRTUAL WORLD, IT CREATES MOMENTS THAT GIVE OPPORTUNITIES TO KNOW OUR PEERS BETTER.", BUILDING RELATIONSHIPS THROUGH MINECRAFT PLAY, VALUE OF MINECRAFT, I: "THE VIRTUAL PLAYGROUND IS CONTROLLABLE GIVING USERS MORE FREEDOM TO APPLY CONCEPTS LIKE THE KAIKUA'ANA AND KAIKAINA RELATIONSHIP IN SITUATIONS WHERE IN REAL LIFE CAN BE STRESSFUL AND INCONVENIENT. IN A VIRTUAL ENVIRONMENT, CHALLENGES AND TASKS THAT CAN TAKE A LONG TIME WITH MANY RISKS THAT CAN DAMAGE THINGS, WASTE TIME OR CAN BE AFFECTED BY UNCONTROLLABLE VARIABLES CAN BE CONTROLLED AND NOT BE A RISK TO ANYONE LIKE BUILDING, FIGHTING, EXPLORING AND MANY OTHERS THAT CAN USE UP ASSETS, TIME AND GOODS TO MAKE ANYTHING HAPPEN. THIS ADVANTAGE OF A VIRTUAL SPACE WITH THE FOCUS OF THE KAIKUA'ANA/KAIKAINA SYSTEM COULD CREATE BETTER LEADERS AND LEARNERS TO BUILD POSITIVE SKILLS AND LESSONS WITH NO RISKS AND HIGH REWARDS ON A PLAY SPACE WHERE IDEAS THAT ARE HARD TO CREATE IN REAL LIFE CAN BE DONE IN A PLACE THAT IS EASILY ACCESSIBLE, AND ADAPTABLE TO ANYONE WITH VARYING BACKGROUNDS AND SKILLS.", FREEDOM FOR APPLYING CONCEPTS IN VIRTUAL PLAYGROUND, BUILDING POSITIVE SKILLS WITH MINIMAL RISKS, VALUE OF MINECRAFT, LOW RISK HIGH REWARD, " SOME OF THE GROUPS HAD PEOPLE THAT ALREADY KNEW HOW TO PLAY THE GAME AND OTHER GROUPS THAT ARE NEW SO SOME THINGS THAT WE DID WAS TO GO TO THE OTHER GROUPS AND TO HELP THEM COLLECT THEIR RESOURCES AND TO SHOW THEM WHAT THEY NEEDED TO DO. I ENJOYED DOING THIS BECAUSE IT WAS FUN TO HELP THE NEW ONES OUT BECAUSE IT REMINDED ME OF WHEN I FIRST STARTED OUT ON THE GAME AND HONESTLY THIS WAS ALSO A GOOD REFRESHER FOR ME TO KIND OF WALK THROUGH THE STEPS AGAIN. I DEFINITELY LEARNED A LESSON FROM ALL OF

THIS AND IT FELT GOOD THAT I WAS ABLE TO HELP
THOSE IN NEED OF HELP.", LEARNING LESSONS
FROM EXPERIENCES, HELPING NEW PLAYERS AS A
KAIKUAʻANA, FEELING EMPATHY FOR FIRST TIME
PLAYERS, LEARNING KAIKUAʻANA KAIKAINA,
HELPING IN THE KAIKUAʻANA ROLE, "CAPTURE
THE FLAG TOOK A LOT OF COMMUNICATION
WHICH IS ALSO A GREAT STEP BECAUSE WITHOUT
COMMUNICATION THEN THERE WOULD BE A BIG
MESS SO THIS WAS A GOOD THING FOR US TO DO.",
SEEING THE VALUE OF COMMUNICATION IN
CHALLENGES, COMMUNICATION, "A LESSON THAT
I LEARNED FROM ALL THIS WAS THAT NOT
EVERYONE CAN HELP THEMSELVES WHICH IS WHY
HELPING OTHERS TO GET TO WHERE THEY NEED
TO BE IS IMPORTANT AND MAKES YOU LOOK LIKE
A BETTER PERSON. OUR KUMU TOOK THE TIME TO
MAKE THIS SERVER FOR US AND TO TEACH ALL OF
US THE IMPORTANCE OF BEING LEADERS AND TO
HELP THE ONES IN NEED AND THIS IS A GREAT
WAY TO SHOW THIS.", LEARNING LESSONS FROM
MINECRAFT EXPERIENCES, SEEING IMPORTANCE
OF HELPING OTHERS, LEARNING, VALUE OF
HELPING, "THE KAIKUA'ANA AND KAIKAINA
RELATIONSHIP SHOWCASED HOW HAVING
RESPECT BUILDS A BETTER COMMUNITY AND HOW
RESPECT PLAYS A BIG ROLE IN KAIKUA'ANA'S AND
KAIKAINA'S RELATIONSHIP WHERE RESPECT
SHOULD BE GIVEN TO ANYONE WHATEVER
POSITION THEY HAVE AT ANY TIME AT ANY PLACE.
I HIGHLY COMMEND OUR KAIKUA'ANA FOR
HAVING THIS CHARACTERISTIC OF BEING
RESPECTFUL ALTHOUGH SHE IS YOUNGER THAN
THE OTHER KAIKAINAS WHO ARE EXTREMELY
OLDER BY AGE, STILL SHE MANAGED TO DO HER
JOB AS KAIKUA'ANA.", HAVING RESPECT FOR
KAIKUAʻANA IS KEY, LEARNING KAIKUAʻANA
KAIKAINA, "BEING ABLE TO EXPERIENCE THIS
RELATIONSHIP IS A VERY GREAT WAY TO LEARN
HOW TO BE A GOOD KAIKUA'ANA AND KAIKAINA.
WE ARE LUCKY TO EXPERIENCE IT IN SUCH A FUN
WAY WHERE WE CAN GO OUT WITH OUR COMFORT
ZONES, WHERE WE CAN ACTUALLY SKIP OUT WITH
"SCHOOL" KIND OF ACTIVITIES, AND WHERE WE
ARE ABLE TO LEARN NEW SKILLS AND
KNOWLEDGE NOT ONLY IN THE GAMING WORLD

BUT ALSO IN THE REAL WORLD. THOUGH THIS GAME, TO BE HONEST, GAVE ME A LOT OF FRUSTRATION AND STRESS BUT IN A GOOD AND FUN WAY THAT AT LEAST I WAS ABLE TO EXPERIENCE THAT FRUSTRATION AND STRESS NOT BECAUSE OF AN EXAM OR A KNOWLEDGE BASE TYPE OF ACTIVITY. AS A KAIKAINA IN THE WHOLE DURATION OF THIS ACTIVITY, I HAVE LEARNED A LOT OF LESSONS ESPECIALLY RELATED TO RESPECT AND MANAGING A GROUP EFFICIENTLY. I THINK THE EXPERIENCE WOULD NOT BE THE SAME IF OUR CLASS IS NOT COMPOSED OF STUDENTS WITH EXTREME DIFFERENCE OF AGE AND DIFFERENT LEVELS OF KNOWLEDGE OF THE GAME. FOR ME, EVERYONE DID A GREAT AND FANTASTIC JOB IN THIS ACTIVITY AS KAIKUA'ANA AND KAIKAINA. I HOPE THAT EVERYONE OF US LEARN A LOT FROM THIS ACTIVITY.", LEARNING ABOUT KAIKUA'ANA KAIKAINA RELATIONSHIPS THROUGH MINECRAFT EXPERIENCE, SEEING MINECRAFT AS A FUN AND NEW WAY TO LEARN, LEARNING KAIKUA'ANA KAIKAINA, VALUING MINECRAFT, "IT WAS USED ACCORDING TO ITS PURPOSE THAT IS TO EXPERIENCE THE ACTUAL CONCEPT OF KAIKUA'ANA AND KAIKAINA RELATIONSHIP. THE EXPERIENCE WAS WORTH IT FROM LEARNING THE GAME FROM SCRATCH TO SOMETHING. I HAVE NEVER BEEN SO PROUD OF MYSELF BEING ABLE TO DEDICATE MY TIME IN PLAYING AND LEARNING A GAME WITH A GREATER PURPOSE. I CAN SAY IT WAS A VERY PRODUCTIVE JOURNEY BEING ABLE TO LEARN VARIETY OF LIFE LESSONS.", FEELING THE USE OF MINECRAFT WAS WORTH IT, FEELING PROUD OF DEDICATION TO LEARNING IN MINECRAFT, VALUING MINECRAFT, "WHEN OUR CLASS WAS SPLIT INTO TWO BIG GROUPS, I WAS A LITTLE HESITANT BECAUSE WITH WHAT I SAW, GIGANTIC VILLAGES, NICE LOOKING HOUSES, I CONVINCED MYSELF THAT I WILL NEVER BE ABLE TO PARTICIPATE BECAUSE MOST OF OUR GROUP MEMBERS WERE EXPERIENCED AND PROS ALREADY. BUT FORTUNATELY, OUR TEAMMATES DISPLAYED PROFESSIONALISM AND PATIENCE. I WAS DEFINITELY THE KAIKAINA IN THIS GROUP. OUR GROUP TEAMS THAT ALREADY KNEW THEIR WAY AROUND MINECRAFT WERE THE

KAIKUA'ANA. THEY WERE THE ONES THAT DISPLAYED SO MUCH PATIENCE AND SURPRISINGLY WERE VERY CALM AND HELPFUL.", INITIALLY FEELING HESITANT ABOUT GAME AND BEING KAIKAINA, LATER RECEIVING HELP AND CALM FROM TEAM LEADERS, LEARNING THE GAME/BEING A KAIKAINA, "I NOTICE HOW CALM AND COLLECTIVE OUR TEAMMATES WERE WHEN ASSISTING OUR PRESIDENT. NO RUDENESS OR ANY TYPE OF BAD BEHAVIOR WAS SHOWN EVEN UNDER HEAVY PRESSURE. I BELIEVE THAT IF WE HAD NOT PRACTICED KAIKUA'ANA- KAIKAINA RELATIONSHIPS, THIS WOULD HAVE ENDED ON A DIFFERENT NOTE.", EXPERIECNING CALM AND COLLECTED BEHAVIOR FROM KAIKUA'ANA DUE TO LEARNING CONCEPTS, LEARNING KAIKUA'ANA KAIKAINA, "I FIRMLY BELIEVE THAT KUMU DID A REALLY GOOD JOB ON PREPARING THIS FOR US. WE WERE ABLE TO EXPERIENCE WHAT A KAIKUA'ANA KAIKAINA RELATIONSHIP IS AND IT WAS A WONDERFUL THING. WE ALL ENJOYED THE CLASS AND HONESTLY, I NEVER THOUGHT I WOULD SAY THAT I ENJOY PLAYING MINECRAFT AND THAT I LOOK FORWARD TO THE NEXT CLASS TO PLAY. I DEDICATED SOME OF MY LEISURE TIME TO BUILD MY OWN HOUSE AND GET TO EXPERIENCE AND ALSO DEVELOP PLANNING SKILLS. I AM THANKFUL THAT WE WERE ABLE TO PLAY VIDEO GAMES IN CLASS, AND IT WASN'T JUST ANY AVERAGE GAME, IT GAVE US LIFE EXPERIENCES THAT WE WILL NEED IN LIFE.", EVERYONE IN THE CLASS ENJOYING THE EXPERIENCE IN MINECRAFT IN THE END, GAINING OF LIFE EXPERIENCES THROUGH CLASS, VALUE OF MINECRAFT, LEARNING, "I DID LIKE HOW WE ALL WOULD COMMUNICATE WITH EACH OTHER TO GET THROUGH THE MISSIONS.", LIKING TEAM COMMUNICATION IN MISSIONS, COMMUNICATION, "TRUST IS A DIFFICULT THING FOR ME AND MINECRAFT FORCED ME TO TRUST OTHERS.", MINECRAFT FORCING TRUST OF OTHERS, TRUST, "I SHOULD HAVE MADE IT EASIER FOR MYSELF AND ACCEPT THE CHANGE KNOWING THAT THIS ACTIVITY WAS FACILITATED. THE IMPORTANCE OF KAIKUA'ANA/KAIKAINA RELATIONS AND HOW I UNDERSTAND IT NOW AT THE END OF THE SEMESTER IS TO LET IT HAPPEN,

IT IS NOT ALWAYS A BATTLE WHEN YOU HAVE WILLING PARTICIPANTS. KAIKUA'ANA/KAIKAINA RELATIONS IS ALSO A REMINDER TO DO THE RIGHT THING AND HELP WITHOUT BEING ASKED.", ACCEPTING THE CHANGES THAT COME WITH KAIKUA'ANA KAIKAINA RELATIONS, UNDERSTANDING KAIKUA'ANA KAIKAINA, "ANYTIME WE HAD TO COMPLETE A TASK OR CHALLENGE SHE WOULD MAKE IT ABOUT HERSELF WHETHER SHE REALIZED IT OR NOT. THERE WERE NONSTOP COMPLAINTS ON HOW HARD IT WAS TO PLAY, THAT WOULD BE FOLLOWED BY SWEARING AND UNNECESSARY EXTREMELY NEGATIVE COMMENTS. I RECALL ONE CLASS WHERE KUMU'S NĀ MO'OPUNA (GRANDCHILDREN) WERE HELPING US DURING CLASS. THAT ONE CLASSMATE WAS SWEARING, GETTING FRUSTRATED AND BEING NEGATIVE IN FRONT OF THE GRANDCHILDREN. I WAS BEYOND FURIOUS. IN THAT MOMENT, THE LITTLE RESPECT I HAD FOR SAID PERSON WAS GONE.", EXPERIENCING FUSTRATIONS WITH TEAM MEMBER'S BEHAVIOR, FUSTRATION, "WE ALL SHOWED EFFECTIVE COMMUNICATION SKILLS WHILE REMAINING CLOSE TOGETHER THE ENTIRE TIME. IT WAS GENUINELY A FUN EXPERIENCE. WHEN I CHANGED MY THOUGHTS, LET GO OF MY PRIDE, AND BECAME AN ACTIVE TEAM PLAYER IT CHANGED THE GAME COMPLETELY. WE WERE ALL SUPPORTING EACH OTHER IN THAT MOMENT.", EXHIBITING EFFECTIVE COMMUNICAITON LEADS TO A FUN EXPERIENCE, COMMUNICATION, FUN, "LITTLE DID I KNOW THAT I WOULD GAIN IMPORTANT LIFE LESSONS, REALIZATIONS ABOUT MY ROLES WITHIN CLASS AND IN MY DAILY LIFE . AGE DOES NOT AUTOMATICALLY PLACE SOMEONE IN THE KAIKUA'ANA POSITION, SOMETIMES IT IS EXPERIENCE.", GAINING IMPORTANT LIFE LESSONS, REALIZING ROLE WITHIN THE CLASS AND LIFE, SEEING HOW EXPERIENCE CAN PLACE SOMEONE IN A KAIKUA'ANA POSITION, LEARNING, "TO SUMMARIZE THE EXPERIENCES THAT I HAVE LEARNED WHILE MANEUVERING THROUGH MINECRAFT WITH MY PEERS, THOUGH IT HAS CHALLENGED ME, IT HAS ALSO TAUGHT ME A FEW LESSONS. THE FIRST BEING THAT I SHOULD NOT ASSUME THAT AN ACTIVITY LIKE THIS HAD

NOTHING TO DO WITH WHAT WE WERE DISCUSSING IN CLASS. IN REALITY, THE ACTIVITY DID, IN FACT, INCORPORATE OUR DISCUSSIONS IN CLASS, ESPECIALLY WITH REGARD TO KAIKUANA AND KAIKAINA. WE DID THIS BY LEARNING TO WORK TOGETHER. AGE WAS NO LONGER A FACTOR. INSTEAD, IT BECAME MORE ABOUT TRUST AND LEADERSHIP, LEARNING TO UTILIZE THE RESOURCES WE HAD TO GET THROUGH THE VARIOUS "OBSTACLES" WE FACED. HONESTLY, I DIDN'T MIND THE FACT THAT PEOPLE YOUNGER THAN ME WERE LEADING ME, BUT I HAVE HUGE TRUST ISSUES, FOR VARIOUS REASONS THAT INVOLVE MY PAST. SOME OF THOSE TRUST ISSUES INCLUDE BUT ARE NOT LIMITED TO BEING LEFT BEHIND OR FORGOTTEN AND PEOPLE OPENLY BEING FRUSTRATED WITH ME BECAUSE I COULDN'T UNDERSTAND OR PERFORM TO THE SAME LEVEL AS EVERYONE ELSE (LONG STORY, DON'T ASK).", LEARNING THE CONNECTION OF MINECRAFT TO KAIKUA'ANA KAIKAINA CONCEPTS, UNDERSTANDING KAIKUA'ANA KAIKAINA THROUGH TRUSTING TEAM AND WORKING TOGETHER, VALUE OF MINECRAFT, LEARNING OF KAIKUA'ANA KAIKAINA, "MY OVERALL EXPERIENCE IN THIS CLASS, THOUGH IT STARTED A BIT ROCKY, IN THE END I UNDERSTOOD THE PURPOSE OF MINECRAFT IN THIS CLASS AND I ACTUALLY LEARNED TO APPRECIATE THE PERSPECTIVE OF WHAT MINECRAFT OR THE EXPERIENCE OF PLAYING THE GAME COULD OFFER ME AS A LEARNING EXPERIENCE. THE ENTIRE CLASS WAS NOT JUST ABOUT MINECRAFT, BUT I WOULD HAVE TO SAY THAT THE BIGGEST LESSON THAT I LEARNED WAS IN PLAYING THIS GAME. I THINK ABOUT THE UPS AND DOWNS OF WHERE I FIRST STARTED TO PLAY, TO WHEN WE PLAYED FOR THE LAST TIME. I THINK ABOUT THE EMOTIONAL ROLLERCOASTER THAT I WAS, OR FELT LIKE I WAS, CONSTANTLY ON EVERY TIME WE HAD TO PLAY THE GAME. THANKFULLY, BY THE LAST FEW TIMES WE WENT ON, I WAS IN A BETTER MENTAL SPACE AND DID NOT PANIC OR SPEAK DOWN ABOUT MYSELF WHILE WE PLAYED.", EXPERIENCING A ROCKY START AT FIRST AND LATER UNDERSTANDING MINECRAFT'S PURPOSE,

VALUE OF MINECRAFT, "ALONG WITH THAT, I HAD TO ALSO ACKNOWLEDGE THAT IF I DON'T LEAD AND FULFILL MY POSITION CORRECTLY THEN WE WILL ALL FAIL. WHEN WE HAD TO TRAVEL ACROSS THE WATER I ENSURED THAT OTHERS HOPPED INTO THE "BETTER" PLAYERS' BOATS. ALTHOUGH I DON'T WANT TO HAVE TO TELL SOMEONE YOU WILL SLOW US DOWN BY DRIVING A BOAT ON YOUR OWN, MY SIMPLE LEADERSHIP OF TELLING THEM TO GET IN MY BOAT WILL ENSURE EFFICIENCY.", FULLFING POSITION OF KAIKUA'ANA IS KEY, LEARNING KAIKUA'ANA KAIKAINA, "MINECRAFT WAS A FUN WAY TO CHALLENGE OUR COMPUTER SKILLS, WHILE WORKING ON OUR COMMUNICATION AND PROBLEM SOLVING AS A TEAM. I ENJOYED WORKING AS A TEAM MORE THAN COMPETING AGAINST EACH OTHER. WE WERE ABLE TO HELP ONE ANOTHER AND LEARNED HOW TO ASK FOR HELP WHEN COMPLETING TASKS.", WORKING AS A TEAM AND ENJOYING MINECRAFT CHALLENGES, USING MINECRAFT CHALLENGES TO IMPROVE COMMUNICATION, PROBLEM SOLVING AS A TEAM, TEAM FOCUS, VALUE OF MINECRAFT, "HOWEVER, WE COMMUNICATED WELL AND HELPED EACH OTHER . THE LEADER WAS DIFFERENT BUT AS A TEAM WE STILL WORKED WELL TOGETHER. ONCE I FIGURED OUT HOW THE COORDINATES WORKED IT GOT EASIER TO FIND MY DIRECTION. WHEN I BECAME DISTRACTED FIGURING OUT WHERE I WAS GOING, OTHER GROUP MEMBERS WERE REALLY HELPFUL IN ASSISTING EACH OTHER SO EVERYONE COULD KEEP UP AND STAY TOGETHER. EVEN THOUGH WE MISSED SEAN, IT WAS BENEFICIAL FOR THE GROUP LEARNING THAT HE WAS ABSENT. I BELIEVE THIS BENEFITTED THE WHOLE GROUP BECAUSE WE WERE EACH CHALLENGED IN NEW WAYS BECAUSE OF SEAN'S ABSENCES. I WOULD NEVER HAVE LEARNED HOW TO NAVIGATE AS WELL WITH THE COORDINATES AND GOTTEN AS GOOD AS I DID IF I HAD BEEN ABLE TO CONTINUE TO RELY ON SEAN TO NAVIGATE. I ALSO GOT TO PRACTICE PATIENCE WITH MYSELF AND SHARPENED MY SKILLS AS A LEADER.", COMMUNICATING AND WORKING TOGETHER AS A TEAM, TEAM ASPECT]

Appendix F Table of First and Second Cycle Coding Connected to Planning and Pivoting

First and Second Cycle Coding Connected to Planning and Pivoting

First Cycle Data Codes	Second Cycle Pattern Codes
Data Codes from Instructor Interviews: ["THE OBVIOUS THINGS THAT I WORRIED ABOUT WAS LOGISTICS, AND THAT WAS TRUE, WE KIND OF, YOU KNOW, EXPECTED IT AND PREPARED FOR IT, BUT STILL THERE WERE PROBLEMS, RIGHT, THAT I THOUGHT COULD BE RESOLVED. SO INSTEAD OF WAITING TILL MID-TERM, IMPLEMENTING MINECRAFT AND DOING ALL THE TECHNICAL STUFF, I DECIDED TO DO IT RIGHT AT THE BEGINNING OF THE SEMESTER, TO KIND OF GET THOSE TECHNICAL THINGS OUT OF THE WAY. THAT WAS ONE OF THOSE THINGS AND THEN I DECIDED THAT INSTEAD OF LUMPING IT ALL INTO ONE SHORTER TIMEFRAME, TO START DOING SOME MINECRAFT ACTIVITIES EARLY, SO THAT YOU KNOW, THEY HAVE A CHANCE TO ACCLIMATE TO THESE. FOR THOSE WHO WERE, YOU KNOW, NEW TO MINECRAFT. AND I THINK THAT WAS KIND OF SUCCESFUL.", STARTING STUDENTS EARLIER ON MINECRAFT, MORE TIME ALLOCATED TO MINECRAFT, , "THE PLAN IS TO DO EXACTLY WHAT I DID LAST SPRING, THIS PAST SPRING, INTRODUCE AND GET THE LOGISTICS DONE EARLY, AND THEN HAVE LITTLE WARM UP STUFF SPREAD OUT, LIKE MAYBE ONE MINECRAFT GAME, IN EVERY TWO OR THREE WEEKS, SOMETHING LIKE THAT, RIGHT. SO THAT THEY START TO REALIZE THAT, THEN AFTER THE MIDTERM, THAT, SO I THINK I'M GONNA FOLLOW THAT, THAT PATTERN, BECAUSE IT KIND OF GETS THEM INTO IT. AND WE RESOLVE A LOT OF THE TECHNICAL ISSUES. BUT THAT'S NOT THE THING THAT'S FRUSTRATING THEM, RIGHT? IT BECOMES THEIR SKILL LEVEL, THEIR COMMITMENT, THAT BECOMES THE FOCAL POINT TOWARDS THE END OF THE CLASS.", FOLLOWING PREVIOUS COURSE BLUEPRINT, GETTING STUDENTS ENGAGED WITH MINECRAFT EARLY IN THE SEMESTER, STARTING EARLY TO RESOLVE TECHNICAL ISSUES UP FRONT, EARLY MINECRAFT ENGAGEMENT, "I THINK ONE THING THAT KIND OF STOOD OUT IS THE TECHNOLOGICAL ASPECT. SO BECAUSE ALL CLASSES FOR THE LAST COUPLE OF YEARS HAVE BEEN ONLINE, AND STUDENTS HAD TO DEAL WITH THAT, THEY'VE KIND OF, THEY DEAL WITH THOSE,	EARLIER START • LOGISTICS AND TECHNICAL ISSUES • MORE PRACTICE TIME • EASING NEEDED FOR THOSE UNCOMFORTABLE OR RESISTANT TO VIDEO GAMES • FOCUSING ON KAIKUA'ANA AND KAIKAINA EARLIER INVOLVING SUPPORTS INTO ACTIVITY PLANNING CHANGES BASED ON CLASS SIZE AWARENESS AND ANTICIPATION NEEDED • ANTICIPATING LOW COMMUNICATION EARLY • PACE OF CLASS • STRUGGLING STUDENTS • FLEXIBILITY TO CHANGE AS NEEDED

THOSE KINDS OF INTERACTION IN THE MOST MINIMALIST WAY THAT THEY CAN, MEANING THAT THEY'LL WORK FROM THEIR PHONES. AND, AND THAT'S A PROBLEM BECAUSE IN MINECRAFT, YOU CANNOT WORK FROM YOUR PHONES, RIGHT? YOU REALLY NEED A COMPUTER AND YOU NEED A MOUSE. AND SOME OF THEM DON'T EVEN HAVE. FIND THAT THEY HAVE A TOUCHSCREEN, THEY DON'T NEED THE MOUSE, BUT FOR MINECRAFT IT REALLY HELPS. AND EVEN THOUGH YOU TELL THEM WHAT THE REQUIREMENTS ARE, THEY STILL THINK THAT THEY CAN GET AWAY WITH, YOU KNOW, LESS, WITH THEIR PHONE. AND AS SOON AS WE PLAYING MINECRAFT, THEY FIND OUT OH, WE CANNOT GET WITH THEIR PHONE AND ALL THEY HAVE AN ISSUE RIGHT? NOW THEY HAVE TO GO FIND A LAPTOP OR SOMETHING.", SOME STUDENTS TRYING TO USE COMPUTERS AND HARDWARE NOT SUITABLE FOR MINECRAFT PLAY, ISSUES REMAIN WITH STUDENTS HAVING THE RIGHT TECHNOLOGY EQUIPMENT AND ACCESS, "THE OTHER THING THAT BECOMES A PROBLEM IS THEIR INTERNET CONNECTION. BECAUSE SOMETIMES THEY START TO FREEZE UP, RIGHT, BECAUSE THERE'S NOT ENOUGH BANDWIDTH OR WHATEVER IS HAPPENING. HOWEVER, YOU KNOW, I TOLD THEM THAT PROBABLY THOSE PROBLEMS, EASILY SOLVED. RIGHT? BECAUSE THE SCHOOL HAS LAPTOPS, AND THEY HAVE HOT SPOTS THAT THEY CAN JUST GO GET FOR FREE FOR THE SEMESTER. AND THEY FOR SOME REASON, DO NOT DO THAT. RIGHT? UNTIL IT'S REALLY WHEN THEY CANNOT EVEN PARTICIPATE THAT THEN THEY HAVE TO CONFESS WHY THEY CAN'T PARTICIPATE.", STUDENTS NOT HAVING ADEQUETE INTERNET ACCESS FOR MINECRAFT PLAY, "THEY THINK THEY CAN GET AWAY WITH IT. AND THEN ALL OF A SUDDEN, THEY GO, OH, I CAN'T GET AWAY WITH IT. AND NOW WE HAVE TO WAIT FOR THEM. THEY LOST IT, BECAUSE IF THEY CAME TO PLAY MINECRAFT THAT DAY, NOW THEY CANNOT AND WHICH ALSO MEANS THEY HAVEN'T BEEN PRACTICING. RIGHT? OR PLAYING WITH IT. SO THAT MAKES THE ISSUE MORE SO YEAH, IF ANYTHING, THE TECHNICAL ASPECTS. I DON'T KNOW HOW, HOW WE RESOLVE THAT, MAYBE

OVER TIME, STUDENTS WILL REALIZE YEAH, YOU
NEED TO HAVE A LAPTOP. BUT I'M SURPRISED AT
HOW MANY OF THEM USE THEIR PHONES, EVEN TO
WRITE PAPERS, REALLY CRAZY.", DELAYING
GAMEPLAY AND LEARNING DUE TO NOT HAVING
APPROPRIATE TECHNOLOGY RESOURCES, "IF
ANYTHING I WANT TO FIGURE OUT IS HOW TO GET
THOSE WHO ARE TOTALLY NON COMPUTER, VIDEO
GAME TYPE PERSONALITIES TO START
PRACTICING. START DOING SOMETHING EARLY,
BECAUSE THEY PRETTY MUCH WERE SO AGAINST,
THAT THEY SPENT A MINIMAL TIME.", NEEDING TO
PLAN FOR EARLY ENGAGMENT OF STUDENTS NOT
COMFORTABLE WITH COMPUTER GAMES, "I POSED
A QUESTION, WOULD YOU HAVE LIKED IT THE
WAY IT WAS, OR HAVE IT AT THE END, LIKE I DID
THAT FIRST SEMESTER? AND THEY ALL SAID, NO,
THEY REALLY APPRECIATED THAT THEY HAD
SOME INTRODUCTIONS AND SOME EXPERIENCE,
YOU KNOW, WITH IT IN THE EARLY PART OF THE
SEMESTER. SO IT GAVE THEM SOME TIME TO
PREPARE.", STUDENTS APPRECIATED STARTING
MINECRAFT EARLIER, "I THINK ONE THING THAT I
DID LEARN FROM THE FROM THE FIRST CLASS TO
THE SECOND CLASS AND THE STUDENTS IS, AND
ESPECIALLY WITH THIS CLASSES, THEY DIDN'T
HAVE THAT SENSE OF URGENCY, RIGHT? I SAID IN
MINECRAFT BE PREPARED TO DIE, DIE A LOT. AND
WHEN THEY HEARD THAT IT WAS KIND OF LIKE, I
COULD SEE INTO A RELIEF, BECAUSE ONCE THEY
DIE, THEY JUST LIKE GAVE UP SOMETIMES RIGHT
AND THEY DIED AGAIN AND THEY GO, OH MAN I
CAN'T STAND IT, THEY DON'T REALIZE THAT THAT
WAS PART OF THE LEARNING PROCESS. RIGHT?
AND TO NOT TAKE IT PERSONALLY. JUST USE IT AS
A BUILDING BLOCK. OKAY, WHAT DID I DO
WRONG? WHAT CAN I DO TO PREVENT THAT FROM
HAPPENING? THEY, IT WAS LIKE, END THE GAME, I
QUIT ALREADY, END THE GAME ALREADY,
INSTEAD OF, NO, YOU'RE NOT DYING FOR REAL.
OKAY, THIS IS JUST ANOTHER WAY TO LEARN
FROM OUR MISTAKES. AND I THINK THAT ALONE
HELPED THEM.", STUDENTS GIVING UP WHEN
DYING IN THE GAME, RESILIANCE NEEDED, "SO IT'S
JUST A MATTER OF IF THEY'RE STRUGGLING, I
NEED TO MAYBE HAVE MORE MINECRAFT

CLASSES, RIGHT? AND I CAN FLEXIBLY DO THAT TO HELP THEM", "THIS SEMESTER, WE STARTED EARLIER, RIGHT, WE SPREAD IT OUT. AND THEN THIS SEMESTER, WE HAD THREE GROUPS INSTEAD OF ONE, LIKE LAST SEMESTER. SO THE DYNAMICS WAS DIFFERENT.", STARTING EARLIER, "SOMETHING LIKE SPREADING IT OUT DURING THE SEMESTER, YOU KNOW, IS A GOOD CHANGE, THAT WAS KIND OF A MAJOR CHANGE. AND I THINK THAT'S GOING TO STAY", SPREADING OUT MINECRAFT PLAY EARLIER IN THE SEMESTER A MAJOR CHANGE, FOR SOME TO GET USED TO THE IDEA. BECAUSE ONE OF THE THINGS THAT, YOU KNOW, I'M STARTING TO REALIZE IS THAT THOSE WHO ARE OLDER AND NOT COMFORTABLE WITH TECHNOLOGY, AND ESPECIALLY VIDEO GAMES, IT'S A REAL ISSUE WITH THEM. TO THE POINT OF SOME, SOME LITERALLY PANIC, YOU KNOW, WHEN THEY HEAR THAT, SO HAVING THAT SLOW ENTRY AND GETTING ACCUSTOMED, AND SOME NEEDING HAND HOLDING, I THINK REALLY HELPS.", EASING OLDER GENERATIONAL STUDENTS INTO MINECRAFT, "BUT BECAUSE IT WAS A VIDEO GAME, YOU KNOW, THAT BLOCK THAT THEY HAD AGAINST IT IS JUST SOMETHING LIKE A CHORE. YOU KNOW, WHERE THEY DIDN'T THEY DIDN'T APPLY THEIR NORMAL ACADEMIC METHODOLOGIES RIGHT? TO END WITH A SUCCESSFUL CONCLUSION. NO, THEY EXPECT THE MINIMAL TIME. AND IT SHOWED RIGHT. AND THEN THEY ADMITTED IT TO THAT THAT WAS THE BIGGEST OBSTACLE FOR THEM. LIKE ONE STUDENT SAID, "I HATE VIDEO GAMES", RIGHT? AND SHE COULDN'T GET AROUND THAT. AND SO WHEN YOU HATE SOMETHING, YOU DON'T TOUCH IT.", RESISTING ENGAGEMENT OF THOSE HATING VIDEO GAMES, "WHEN I HEARD WE'RE GONNA PLAY IT, I TRIED TO AVOID THAT CLASS. SO SHE WOULD SKIP CLASS, RIGHT? WHICH IS, IS HOW YOU FAIL A CLASS. AND IF IT WAS ONLY ACADEMICS LIKE SKIPPING CLASS, RIGHT, BECAUSE YOU HATE THAT ONE SUBJECT. IT'S KIND OF INTERESTING THAT THOSE SAME KINDS OF MECHANISMS AUTOMATICALLY TRIGGER BUT IT'S SOMETHING I HAVE TO BE AWARE OF AND DEAL WITH, RIGHT THAT THEY WILL BE FRUSTRATED, THEY WILL

HAVE THOSE SAME TENDENCIES TO NOT WANT TO
ENGAGE IN IT TO SPEND THE LEAST AMOUNT OF
TIME IN IT.", DEALING WITH STUDENT
FUSTRATIONS, "ACTUALLY, I THINK IT'S GOING
BETTER. OKAY, IT'S CERTAINLY BETTER THAN
BEFORE, MORE BECAUSE BEFORE WE KIND OF
WAITED TOWARDS THE END TO DO IT ALL ONE
TIME, THAT'S A KIND OF A LITTLE MUCH RIGHT TO
BE PILED ON, AND PROBABLY SUPER STRESSFUL.
SO THIS KIND OF STARTED AT THE BEGINNING OF
THE SEMESTER, AND THEN YOU KNOW, LITTLE BY
LITTLE THEY'RE GETTING ACCLIMATED TO,
THERE'S PLUSES AND MINUSES TO THAT. THE PLUS
SIDE IS THAT THEY HAVE TIME TO ACCLIMATE,
WHICH SOME HAVE DONE, BUT ON THE MINUS SIDE
IS THAT THOSE WHO ARE REALLY ADVERSE TO
COMPUTER GAME, IT'S EASY FOR THEM TO PUSH IT
OFF, RIGHT? TO NOT DO ANYTHING.", STARTING
EARLIER GIVES MORE TIME FOR ACCLIMATION,
HAVING MORE TIME DOES NOT MEAN THOSE
ADVERSE TO GAMES WILL UTILIZE IT, STARTING
EARLIER IS HELPFUL FOR MINECRAFT
ACCLIMATION IF UTILIZED, "FOR A LOT OF THEM, I
THINK THEY THINK THEY CAN JUST STILL
SURFACE IT, RIGHT? JUST GO RIGHT OVER THE
SURFACE, SKIM PAST IT. BUT I, BUT I THINK THAT
OVER THE LONG RUN, AS IT'S TURNING OUT, NOW,
THEY'RE NOW ENGAGING, BECAUSE THEY FEEL,
THEY SEE THE VALUE OF IT, HAD WE DONE IT IN A
SHORT PERIOD, MAYBE NEVER.", SKIMMING PAST
THE MINECRAFT PORTION UNTIL VALUE IS SEEN,
SEEING THE VALUE OF MINECRAFT HELPS WITH
ENGAGEMENT, "SO I THINK THAT I AM SEEING
THAT, THAT THEY ARE STARTING TO ENGAGE AND
UNDERSTANDING THEIR ROLE AS KAIKAINA. THEY
THOUGHT THAT THEY COULD JUST BE THIS, OKAY,
YOU JUST HELPED ME AND THAT'S GOOD ENOUGH
AND EVERYTHING. BUT NOW, ALL OF A SUDDEN,
THEY'RE TOSSED ON THEIR OWN, AND THEY
REALIZE JUST HOW MUCH THEY'RE, THEY'RE
HOLDING BACK PEOPLE.", REALIZING THAT THEY
ARE HOLDING PEOPLE BACK IF THEY ONLY RELY
ON OTHERS FOR HELP, REALIZING THE
INDIVIDUALS IMPACT ON THE GROUP, "BUT I
ATTRIBUTE IT TO THE, I RESTRUCTURED MY
LESSON PLAN A LITTLE BIT TO FOCUS ON

KAIKUAʻANA KAIKAINA EARLIER. RIGHT, AND THEN MAKE SURE WE HAVE THE SUPPORT ON THE MATERIALS THAT WENT IN THERE. SO BY THAT TIME, WE START PLAYING MINECRAFT, THEY KNOW THEIR ROLE.", FOCUSING ON THE ROLES OF KAIKUAʻANA AND KAIKAINA EARLIER IN THE COURSE, "SO EITHER DOING STUFF LIKE THAT, THROWING VIDEOS THAT MAYBE KIND OF DON'T DIRECTLY CONNECT, BUT CONNECTS TO THE OVERALL PICTURE IN HOPES OF TRYING TO STIMULATE AND BRING BACK OTHER THINGS THAT WE TALKED ABOUT EARLIER. RIGHT. OR, OR WE'LL TALK ABOUT TO GET THEM THINKING ABOUT HOW THEY'RE GOING TO APPLY WHAT THEY'RE LEARNING TODAY AS THEY PROGRESS.", ADDING IN LEARNING ACTIVITIES TO INCREASE UNDERSTANDING OF CONCEPTS, "THE ONLY OTHER THING THAT I THINK I PREPARED OVER THE FIRST ONE WAS THAT I WORKED CLOSER WITH THE KUMU, RIGHT, THAT WAS JENNY'S BOYS, THAT WE SHOULD PLAN THE ACTIVITY TOGETHER.", INVOVLING SERVER ADMINS INTO ACTIVITY PLANNING, "THANK GOODNESS FOR JULIAN AND TYTUS, BECAUSE THEY CAME UP WITH ESCAPE ROOMS, THEY CAME UP WITH OTHER KINDS OF THINGS THAT I WAS KIND OF UNAWARE OF, BUT I LIKED THE IDEA OF THEM HAVING TO, MY STUDENTS HAVING THE OPPORTUNITY TO, WORK TOGETHER. RIGHT, AND, AND SOLVE PROBLEMS.", SERVER ADMIN INPUT IN NON-COMPETITION ACTIVITY CREATING WAS HELPFUL, "I ALSO HAD A LOT MORE EXPERIENCE WITH MINECRAFT, UNDERSTOOD WHAT WERE SOME OF THE THINGS THAT WE COULD DO THAT MAYBE FIT WITH WHAT WE'RE TRYING TO DO. SO WE DID NOT PLAY ALL THE SCENARIOS THAT WE DID IN THE FIRST CLASS, AT THE END A COMPETITION, MAINLY BECAUSE THE NUMBERS WERE SO SMALL, RIGHT? THEY DIDN'T HAVE A GROUP TO COMPETE AGAINST. SO THEREFORE, WE HAD TO FIGURE OUT NEW SCENARIOS WHICH I THINK WE DID WELL, BUT WE HAVE TO COME UP WITH THINGS THAT WILL CHALLENGE THEM AND FORCED THEM TO COMMUNICATE AND TALK AS A GROUP.", NEEDING TO CHANGE FROM COMPETITION BASED ACTIVITIES FOR SMALL CLASS SIZE, "AND I THINK

ONE LAST THING THAT WAS A LITTLE BIT DIFFERENT THAN THE FIRST GROUP, AND IT'S BECAUSE THIS GROUP WAS REALLY STRUGGLING WITH JUST THE MECHANICS OF MINECRAFT, SO JENNY INTERVENED, AND SO THE BOYS INTERVENED, AND TRYING TO HELP THEM ACCOMPLISH THEIR TASKS, RIGHT, AND SO THAT THEY WOULDN'T GET DISCOURAGED. AND I THINK THAT WAS HELPFUL. PERSONALLY, I WOULD HAVE SAID, NO, YOU KNOW, ONCE WE SET THE RULES, LET'S LET IT GO. RIGHT. BUT I THINK HAVING THEM CONTRIBUTE, YOU KNOW, BECAUSE THEY'VE BEEN EXPERIENCED, THAT THEY'VE BEEN PLAYING THE GAME A LOT MORE, UNDERSTANDABLE. THE CHALLENGE IS, I THINK BETTER. I THINK THEY INTERVENE WHEN IT'S NECESSARY, RIGHT? TO ENABLE TO KEEP THE STUDENTS ON A POSITIVE NOTE, RIGHT. NOT TO THE POINT WHERE THEY JUST GET FUSTRATED.", CHALLENGING ENDEAVOR OF CREATING NON-COMPETITIVE GAMES, NON-COMPETITION ACTIVITIES HARDER TO CREATE, ANTICIPATING LOW COMMUNICATION EARLY [IN TEACHING KAIKUA'ANA KAIKAINA PROTOCOL, THAT [COMMUNICATING AS A GROUP] SEEMS TO BE REALLY DIFFICULT, RIGHT, FOR SOME TO BE THROWN ON BOARD RIGTH THEN AND SHOW THAT THEY ARE NOT THAT SKILLED UP TO THEIR FELLOW CLASSMATES. AND SO THEIR OPTION OR THEIR DEFAULT IS DON'T SAY ANYTHING, RIGHT? AND DON'T TALK ABOUT ANYTHING AND WAIT TILL AFTER THE CLASS, WHEN THEY ASK SOMEBODY THAT, YOU KNOW, SOMEBODY IN THEIR FAMILY TO HELP THEM ANSWER A QUESTION OR DO THE RESEARCH OURSELVES, WHICH IS REALLY, YES, THAT'S ONE WAY TO GET IT DONE, BUT IT'S SLOW, RIGHT, SLOW WAY TO GET IT DONE.", ANTICIPATING LOW AMOUNTS OF COMMUNICATION IN THE BEGINNING, COMMUNICATION CAN BE LOW IN EARLY MINECRAFT PLAY, "SO YOU NEED TO SPEND SOME TIME JUST LIKE YOU WOULD ANY OTHER ASSIGNMENT. RIGHT? BUT WHEN THEY DO THAT, AND THEY DON'T KNOW HOW, YOU CAN EITHER LEARN THE QUICK WAY OR THE SLOW WAY. SLOW IS TRYING TO LEARN IT ALL YOURSELF, RIGHT?

THE QUICKEST WAY IS ASK SOMEBODY WHO KNOWS IT TO HELP YOU. JUST THAT THE PERSON YOU ASK WILL PROBABLY BE YOUNGER THAN YOU, LESS EDUCATED THAN YOU AND MAY NOT UNDERSTAND THE PROTOCOLS, THAT KIND OF PROTOCOLS, AT ALL AND MIGHT UPSET YOU.", ASKING FOR HELP, PACE OF CLASS [" PLUS THE FACT THAT I HAD TO ALSO BE AWARE OF THE STUDENTS' ABILITIES, RIGHT. SO, AND THEIR FUSTRATIONS, AND I COULDN'T MOVE FASTER THAN THOSE, THAN THEY WERE ABLE TO ACHIEVE, RIGHT? OTHERWISE, THEY WOULD HAVE BEEN FUSTRATED, I THINK. AND SO I HAD TO SLOW, TAKE IT, SLOW IT DOWN, SPEND A LITTLE BIT MORE TIME TO MOVE TOWARD SEARCHING AND, YOU KNOW, THEY EVENTUALLY STARTED TO ACCEPT, THAT THIS WAS SOMETHING THEY HAD TO ENGAGE WITH.", NEEDING TO BE AWARE OF PACE OF CLASS WITHIN MINECRAFT, "I THINK ON THE KINDS OF GAMES AND CHALLENGES THAT THEY ARE FACED WITH, THAT HAS TO BE FLEXIBLE, BECAUSE IT DEPENDS ON HOW SKILLED YOUR STUDENTS ARE. AND IF YOU HAVE A GROUP THAT'S REALLY NOT SKILLED, THEN YOU CANNOT REALLY MOVE TOO FAST, BUT YOU HAVE TO KEEP IT INTERESTING ENOUGH, CHALLENGING ENOUGH, FOR THOSE WHO ARE SKILLED, RIGHT, TO NOT GET BORED.", BEING FLEXIBLE ON GAMES BASED ON GROUP ABILITIES, STRUGGLING STUDENTS ["BE AWARE OF THOSE STUDENTS WHO SEEM TO BE STRUGGLING. AND UNDERSTAND THAT THE FRUSTRATION CAN BE, YOU KNOW, JUST, THEY CAN'T GET OVER THE FACT THAT THEY HAVE TO PUT IN TIME INTO WHAT THEY CONSIDER FRIVOLOUS, RIGHT? A WASTE OF TIME.", BEING AWARE OF STRUGGLING STUDENTS WHO FIND GAME FRIVOLOUS, "WE HAVE ONE GROUP WHO WAS REALLY WEAK, VERY, MOST OF THE GROUP MEMBERS ARE NOT COMPUTER, GAME, FRIENDLY. AND SO THEY ARE THE ONES STRUGGLING THE MOST. AND THEY DON'T HAVE A STRONG PERSON THAT THEY CAN, THAT CAN PULL THEM THROUGH. BUT YOU KNOW, THAT'S HOW LIFE IS. SO WE'LL SEE HOW THEY SOLVE THAT PROBLEM. I THINK THEY'RE WELL AWARE THAT IF THEY GIVE UP AND JUST GIVE IN TO THEIR FRUSTRATION, THEN THEY

FAIL. AND SO BECAUSE OF THAT, THEY'RE PUTTING ON THEIR BEST FACE FORWARD. AND TRYING TO DEAL WITH IT. I CAN SEE UNCOMFORTABLENESS, RIGHT. AND I WISH PROBABLY THAT WE COULD AVOID THIS. BUT IN A WAY, I THINK THAT'S GOOD, BECAUSE THAT SHOWS THAT THEY ARE VENTURING INTO NEW TERRITORY THAT MADE THEM FEEL UNCOMFORTABLE. YOU KNOW, THEY'RE OUT OF THEIR COMFORT ZONE. AND NOW THEY HAVE TO DEAL WITH A SPECIFIC DYNAMICS OF BEING IN A KAIKAINA POSITION, PROBABLY SOMETHING THEY HAVEN'T BEEN IN FOR QUITE A WHILE.", STRUGGLING WITHOUT EXPERT PLAYERS IN THE GROUP, EXTENDED LEARNING CURVE WITH LACK OF EXPERT PLAYERS, FLEXIBILITY TO CHANGE AS NEEDED ["I THINK THERE'S ALWAYS GOING TO BE LITTLE TWEAKS AND ADJUSTMENTS, BECAUSE IF IT'S BETTER IT STAYS, BUT THERE'S ALWAYS ROOM FOR IMPROVEMENT. SO I SEE THE SMALL TWEAKS COMING IN", ADJUSTING AS NEEDED, ITERATIVE PROCESS, "ONCE YOU START IT, THAT'S IT, HARD TO TAKE IT, LIKE A TRAIN ON THE TRACKS, YOU CAN'T GO ANY OTHER PLACE. AND THAT'S GOOD SOMETIMES BUT IT ALSO, IT WORKS ON THE PREMISE THAT ONE SIZE FITS ALL, OR ONE EDUCATION MODEL FITS ALL OR FOR EVERYBODY THINKS THE SAME. THAT'S ABSOLUTELY NOT TRUE. SO I THINK BEING ABLE TO MAKE THE ADJUSTMENTS TO TURN WHEN WE NEED TO MAKE THOSE MINOR ADJUSTMENTS, TO MORE CUSTOMIZE, SO THAT YOU HELP THE STUDENTS IN YOUR CLASS, THOSE STUDENTS", ADJUSTING AND CUSTOMIZING TO HELP STUDENTS, FLEXIBILTY IS HELPFUL, "I THINK YOU ALWAYS HAVE TO REMAIN OPEN TO CHANGE. BECAUSE EVERY GROUP OF STUDENTS POSES NEW CHALLENGES THAT YOU NEVER THOUGHT OF BEFORE.", REMAINING OPEN TO CHANGE BASED ON GROUP NEEDS, FLEXIBLITY NEEDED, "BUT NOW I SEE MORE, YOU KNOW, FINE TUNING IN CHANGES, NOT MAJOR TYPE OF CHANGES.", FINE TUNING TYPE OF CHANGES, "THE ONLY TWEAKING THAT WILL HAPPEN, I THINK, WILL BE THE ACTUAL MINECRAFT GAME. AND THE CHALLENGES THAT WE PUT FORTH, WE WILL, I THINK THERE WILL ALWAYS BE A CONSTANT TWEAK"]

Data Codes from Documents Review: ["TODAY IN MINECRAFT, WE WERE TOLD TO WORK AS A CLASS LEADING TO THE NEXT TWO BEACONS. HOWEVER, IT DID TAKE ABOUT 30 TO 45 MINUTES TO GET EVERYONE SITUATED, DUE TECHNICAL DIFFICULTIES.", TAKING TIME FOR TECHNICAL DIFFICULTIES, TECHNICAL DIFFICULTIES, "I DON'T REALLY KNOW WHAT I WILL TALK ABOUT BECAUSE I WAS HARDLY IN THE MINECRAFT ROOM TODAY DUE TO LAPTOP OR CONNECTIVITY PROBLEMS. I GUESS I WILL TALK ABOUT THE DIFFICULTIES THAT I DEALT WITH TODAY. I REALLY WANTED TO PARTICIPATE AND HELP MY CLASSMATES IN WHATEVER PROJECT KUMU WANTED US TO DO. IT WAS ULTRA FRUSTRATING TO NOT BEING ABLE TO HELP MY CLASSMATES TODAY.", LIMITING GAME ACCESS DUE TO TECHNICAL ISSUES, TECHNICAL ISSUES, "FIRST OF ALL, BEING THAT MY LAPTOP IS VERY TEMPERAMENTAL AND DOESN'T WORK WELL, THE LAST FEW TIMES I GOT READY I TRIED TO SOMETHING DIFFERENT. I TRIED AND SET UP MY ZOOM ROOM WITH KUMU AND AT LEAST GET MY MINECRAFT GAME READY TO GO. TODAY I COULDN'T GET THE ZOOM ROOM TO OPEN UP SO I USED MY IPAD FOR THE ZOOM AND THE LAPTOP FOR THE MINECRAFT GAME. I GAVE KUMU A HEADS UP SO HE KNEW THAT IF I COULDN'T GET INTO THE GAME THAT HE WOULD KNOW WHERE I WAS AND IF I WAS ENCOUNTERING ANY DIFFICULTIES. TODAY'S MINECRAFT WAS A LITTLE FRUSTRATING BUT NOT AS FRUSTRATING AS IT WAS IN THE PAST. I FELT I ACCOMPLISHED SOMETHING IN TODAY'S CLASS. IT WAS KINDA GOOD THAT WE WERE JUST PLAYING AT OUR OWN PACE AND NOT AS A TEAM BECAUSE I WOULD HAVE FELT THAT I LET DOWN MY TEAM AGAIN.", CONTINUING TO EXPERIENCE TECHNICAL DIFFICULTIES, TECHNICAL DIFFICULTIES, "I WISH I COULD PARTICIPATE MORE IN MINECRAFT BUT IT IS SO FRUSTRATING WHEN MY LAPTOP HAS ISSUES LOADING UP MINECRAFT. I DON'T WANT TO TAKE UP THE CLASS TIME BY HAVING KUMU OR KUMU TYTUS DEALING WITH HELPING ME WITH MINECRAFT. I HAVE TO FIGURE OUT HOW TO GET

MINECRAFT GOING EARLY SO THAT I CAN PARTICIPATE IN THE MINECRAFT GAMES. KUMU TYTUS AND KUMU HAVE BEEN EXTREMELY PATIENT IN DEALING WITH THE PROBLEMS I AM HAVING WITH MINECRAFT. I HAVE TO LEARN HOW TO PLAY MINECRAFT BETTER IN ORDER TO HELP MY CLASSMATES.", CONTINUING TO EXPERIENCE FUSTRATIONS WITH TECHNICAL ISSUES, TECHNICAL ISSUES, FUSTRATION, "IT WAS NICE TO BE PLAYING WITH AND LEARNING FROM BEING AROUND OTHERS. IT ALSO MADE ME FEEL LIKE I WAS NOT ALONE IN MY TECHNICAL ISSUES OR PERHAPS EVEN FEELING LIKE I WAS BEHIND. I THOUGHT IT WAS GOOD THAT WE DID THE RUNNING TO THE BEACONS AS A PAPA. IT PROMOTED COMMUNICATION AND WORKING TOGETHER. THIS HAS BEEN A GROWING AND STRETCHING EXPERIENCE, UNCOMFORTABLE AND EVEN FRUSTRATING WITH TECHNICAL ISSUES, THUS FAR.", EXPERIENCING UNCOMFORTABILITY AND FUSTRATIONS WITH TECHNICAL ISSUES, TECHNICAL ISSUES, "GETTING INTO THE WORLD OF MINECRAFT WAS A TASK THAT PROVED DIFFICULT TO ME. HONESTLY I STILL CAN NOT FULLY ACCEPT THE GAME ITSELF. I HATE IT. I HAVE NEVER BEEN A PERSON TO PLAY VIDEO GAMES AND I DO NOT FORESEE THAT CHANGING EITHER. MY CLASSMATES HAVE BEEN EXCELLING IN THE GAME BUT I HAVE STILL REMAINED AT THE SAME SKILL LEVEL.", GETTING INTO THE GAME WAS DIFFICULT, TECHNICAL ISSUES]

Appendix G Table of First and Second Cycle Coding Connected to Takeaways

First and Second Cycle Coding Connected to Planning and Pivoting

First Cycle Data Codes	Second Cycle Pattern Codes
Data Codes from Instructor Interviews: "I MUST HAVE HAD AT LEAST SIX OR SEVEN STUDENTS THAT DIDN'T FOLLOW THE INSTRUCTION", "WHAT I WANTED TO ACHIEVE, CANNOT OCCUR IN WHERE YOU HAVE ONLY ONE PERSON THERE WAITING FOR EVERYBODY", "THE SECOND OBSTACLE THAT THEY HAD TO OVERCOME WAS WHERE TO FIND INSTRUCTION", GAMEPLAY SKILL REQUIRING INDEPENDENT STUDY, "THEY JUST WEREN'T IN THE GAME AS MUCH AS THEY SHOULD HAVE, ON THEIR OWN", "THEY HAVE TO LEARN THE GAME OF MINECRAFT AND THEN COMPETE IN THE END", "CONVENIENCE. IT'S EXTREMELY CONVENIENT. IT ALSO ALLOWS YOU TO WATCH THEM IN ACTION, WHICH IF THEY WERE DOING, YOU KNOW, A PROBLEM BASED PROJECTS ON THEIR OWN, I WOULDN'T BE ABLE TO SEE ANY OF IT, AND ACTUALLY, THEY COULD INVENT ALL THE DATA, RIGHT? THEY COULD JUST MAKE UP STORIES. AND I'D NEVER KNOW, WELL, WHETHER THAT'S TRUE OR NOT. THIS I GOT, I GET TO ACTUALLY SEE WHAT'S HAPPENING. I THINK THAT'S IMPORTANT. BECAUSE FOR THEM, THEY REALIZE THEIR ACTUAL ACTIONS ARE ACCOUNTABLE. RIGHT? BECAUSE, YOU KNOW, THEY KNOW, LIKE, WHEN THEY SEE MY AVATAR IN THE GAME, RIGHT, THEN THEY GO, WHO'S THAT? AND THEN THEY GO, OH, THAT'S KUMU. OH, AND THEY GO QUIET. SO THE FACT THAT THEY KNOW, THE TEACHER IS IN THE ROOM, RIGHT? OR THE KUMU IS THERE GENERATES, YOU KNOW, I GUESS THE MOTIVATION TO CONFORM OR TO, TO DO THE RIGHT THING. AND IT'S IN THAT PERFORMANCE, RIGHT, THAT THEY DO, THAT THEY START REALIZING] YOU KNOW, WHY THEY'RE THERE. RIGHT. AND THEY START TO ENGAGE IN THEIR, IN	ENCOUNTERED OBSTACLES • CHALLENGES WITH TECHNOLOGY/INSTRUCTIONS • ACQUIRING GAMEPLAY SKILLS • CONSIDERING OBSTACLE OF GAME ADOPTION BY STUDENTS COURSE GOALS AND ASSESSMENT • COOPERATIVE EFFICIENCY • PERFORMANCE ORIENTED REFINED LEARNINGS FROM INSTRUCTIONAL EXPERIENCE • MORE GROUPS IN CLASS SPURS COMMUNICATION • WRITING EXERCISE PROVIDES FEEDBACK LOOP • INCENTIVES FOR SKILLED PLAYERS • EASE OF ROLE SWITCHING FOR YOUNG GAME EXPERIENCED STUDENTS • CONVENIENCE OBSERVING STUDENTS IN ACTIN AND ABILITY TO PROVIDE GUIDANCE • VALUE OF STUDENTS ADVERSE TO VIDEO GAMES

THEIR EXERCISES. YOU KNOW, I THINK WE ALL ENGAGE SOMEWHAT IN THE ACADEMIC EXERCISES, ARTIFICIALLY, RIGHT? OR, OR ON A SURFACE LEVEL. AND, AND THE KEY IS TO GET DOWN DEEP, RIGHT, INTO WHERE THEY'RE, THEY'RE REALLY CRITICALLY THINKING ABOUT EVERYTHING AND, AND REALLY THEIR OWN EXPERIENCE, RIGHT?", SEEING STUDENTS IN ACTION, ENSURING STUDENTS ENGAGE, CONVIENCE TO SEE STUDENTS IN ACTION, ENSURING ENGAGEMENT, PROVIDING GUIDANCE, "BECAUSE WE HAD ONE GROUP THAT JUST WASN'T COMMUNICATING, I THINK, IF ANYTHING THAT WAS SURPRISING. THAT TURNED, TURNED IT AROUND WAS, YOU KNOW, GOING INTO THEIR BREAKOUT ROOMS, AND NOT HEARING VERY MUCH CONVERSATION. AND THEN JUST SAYING, OKAY, I'M GONNA CLOSE THESE BREAKOUT ROOMS, IN FIVE MINUTES WE'RE GOING TO COME IN. AND THE ONLY COMMENT I G'VE THEM ... YOU GUYS NEED TO TALK MORE. AND THEY ALL MENTIONED THAT. ONCE WE STARTED TALKING, IT WAS ALL MUCH BETTER.", GIVING GUIDANCE TO GROUPS NOT COMMUNICATING, "WHAT I LIKED ABOUT IT, IS THAT WHEN I SAW THAT THEY'RE NOT COMMUNICATING, RIGHT? THEY'RE ACTUALLY SPENDING LOTS OF TIME JUST, QUIET, TRYING TO FIGURE IT OUT. ALREADY, THAT'S A RED FLAG FOR ME, RIGHT? SO I CAN THEN TALK TO JULIAN AND TYTUS AND START TO SEE HOW CAN WE GET THEM TO TALK MORE RIGHT? WHAT CAN WE DO? AND THEN THEY WILL COME UP WITH OTHER SCENARIOS THAT THEY WOULD CREATE, THAT WILL CHANGE THE SITUATION FORCED THEM TO, TO INTERACT WITH EACH OTHER, AND COMMUNICATE WITH EACH OTHER", INTERVENING WHEN COMMUNIATION IS NOT HAPPENING, INTERVENTION CAPABILITY OF

MINECRAFT, "IN THE ACADEMIC SIDE OF THE COURSE, THEY LEARN WHAT THE PROTOCOLS ARE. BUT THEY ALSO LEARN THE REASONS FOR THEM. RIGHT? AND BASICALLY, WHAT THE PROTOCOLS ARE, IS A BEHAVIOR CHANGE, RIGHT? AND BEHAVIOR CHANGES ARE HARD SOMETIMES TO WITNESS, YOU KNOW, OR ASSESS, BECAUSE THEY, BECAUSE A CLASS ONLY LASTS 80 MINUTES, AND IT'S HARD TO SEE IF THAT CHANGE HAPPENED. IF THEY REALLY INCORPORATED IT. MINECRAFT GIVES YOU A WINDOW INTO THAT, WHETHER IT'S INCORPORATED OR NOT, OR ANY KIND OF SITUATION LIKE THAT. MORE SO THAN THE FACE TO FACE PROBLEM BASE SOLVING. BECAUSE I WASN'T WITNESS TO THAT, I HAD TO DEPEND ON WHAT THEY WROTE. AND WHAT THEY REPORTED. THIS ONE I GOT TO ACTUALLY SEE.", SEEING BEHAVIORAL CHANGES IN MINECRAFT, OBSERVATION CAPACITY IN MINECRAFT, "THE OTHER THING THAT IS MAKING A DIFFERENCE THAN BEFORE, IS HAVING THEM WRITE THAT 10 MINUTE EXERCISE AT THE END . SOMETIMES I GIVE THEM A TOPIC, SOMETIMES I JUST SAY WELL, WHAT WAS IMPACTFUL. RIGHT? SO THAT REINFORCES SOMETHING. AND IF I DON'T SEE THINGS THAT ARE SOMETHING, THAT OFTEN NOBODY TALKS ABOUT THAT THEN I KNOW TO FOCUS A LITTLE BIT MORE ON THAT. SO I CAN STILL, YOU KNOW, INFLUENCE THE TRAJECTORY OF THE COURSE, MORE TAILORED TO THE GROUP IN THAT WAY. BECAUSE I HAVE THIS LITTLE FLEXIBILITY AND FEEDBACK LOOP NOW", WRITING FOR TEN MINUTES AT THE END, END OF CLASS WRITING PROVIDES FORMATIVE FEEDBACK LOOP, "BUT THEY DID ADD ONE WORD THAT WAS I WAS GLAD IT'S SURPRISING. THEY SAID NO, ANOTHER WORD WE NEED IN THERE IS COOPERATIVE EFFICIENCY. AND

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THEY ALL AGREED. THEY SAID, YEAH, BECAUSE THAT'S WHAT IT IS. RIGHT? THAT'S THE END RESULT. THAT'S THE PERFORMANCE, THAT WE WERE ABLE TO COME TOGETHER WORK COOPERATIVELY, EVEN IN STRESSFUL CONDITIONS. AND NOT EVERYBODY WAS EQUAL.", WORKING COOPERATIVELY WAS THE OVERALL GOAL, COOPERATIVE EFFICIENCY, "MINECRAFT IS THE PERFORMANCE END AND RIGHT. IT PROVIDES. I MEAN, YOU HAVE MUSICIANS, DANCERS, WHATEVER THEY PRACTICE, PRACTICE, PRACTICE, FOR WHAT, A PERFORMANCE, PERFORMANCE SOLIDIFIES IT. RIGHT? ONCE THEY GET PAST PERFORMANCE, AND THEY DID IT, THEY KNOW THEY HAVE THAT CONFIDENCE AND EVERYTHING. THEY GOT IT AND I THINK IN EDUCATION, THAT'S WHAT MINECRAFT ALLOWS RIGHT? PERFORMANCE? BECAUSE OKAY, YOU LEARN ALL THE THEORIES. LET'S SEE YOU DO IT TOGETHER. YEAH. AND SO, YEAH, PERFORMANCE IS REALLY, I MEAN, IF WE'RE GONNA ASSESS OUR STUDENTS, THAT'S THE FINAL ASSESSMENT, CAN THEY PERFORM? THEY CAN GET IT RIGHT ON PAPER, OR WHEN IN A REAL SITUATION, AND THEY PANIC, RIGHT?", PERFORMING LEARNED CONTENT IN MINECRAFT, PERFORMANCE BASED ASSESSMENT, "SO PART OF THE REWARDS FOR BEING SKILLED IS THAT, ESPECIALLY AFTER THE LAST ACTIVITY WE HAD, WHICH WAS THE PARKOUR COURSE, YOU KNOW, LAVA COURSE, WAS THAT IF YOU FINISH THE COURSE EARLY, YOU GOT TO GO TO THE CASINO, RIGHT, AND WIN DIAMONDS. AND SO FOR THOSE WHO FINISHED EARLY, THEY GOT TO WIN LOTS OF DIAMONDS, AND THOSE WHO DIDN'T PROBABLY DIDN'T HARDLY WIN ANY DIAMONDS, WHICH THEY WILL SEE WHEN THEY GET TOGETHER, AS THEY ARE GOING TO NEED THOSE DIAMONDS

FOR ARMOR AND FOR EVERYTHING ELSE, WHEN WE GET TO THE CHALLENGES. SO I THINK THAT AS A REWARD IS A GOOD WAY TO KEEP THE SKILL PLAYERS INTERESTED. AND HAVE THOSE THAT ARE STILL WORKING ON THEIR SKILLS, TRYING TO BUILD UP THEIR SKILLS, BECAUSE THEY'RE GONNA FIND OUT HOW VALUABLE IT IS. SO THEY'RE GONNA WANT TO GET TO THAT.", BUILDING IN INCENTIVES FOR ENGAGING SKILLED PLAYERS, INCENTIVIZING FOR SKILLED PLAYER ENGAGEMENT, "THE YOUNG ONES, THEY SEEM TO ADAPT REALLY WELL, TO THE KAIKUA'ANA POSITION. AND HELPING THE KAIKAINA, I THINK, BECAUSE THEY UNDERSTAND THE CHALLENGES THEY WENT THROUGH THAT THEY KNOW EXACTLY WHERE, WHY, WHAT THEY'RE GOING THROUGH, SO THEY TEND TO BE MORE PATIENT WITH THEM.", YOUNG STUDENTS FAMILIAR WITH MINECRAFT ADATPING WELL TO THE ROLE OF KAIKUA'ANA AND HAVING LOTS OF PATIENCE, EASE OF ROLE SWITCHING AMONG YOUNGER MINECRAFT EXPERIENCED STUDENTS, "I WAS WATCHING ONE INTERACTION, AND ONE OF THE SLOWER MEMBERS IN THE GROUP WAS SO HAPPY, I MEAN, SHE WAS TERRIBLE. SHE WAS ABSOLUTE VERY SLOW. OKAY. AND YOU COULD TELL THAT SHE DIDN'T PRACTICE, SHE DIDN'T DO ANYTHING. AND THEY WERE GOING TO DIFFERENT BEACONS. AND THEN SHE JOINED IN LATE. RIGHT. AND THEN ALL OF A SUDDEN, THEY HAD ALL KINDS OF PROBLEMS NOW BECAUSE OF HER. RIGHT. BUT THE LEADER WAS VERY PATIENT, AND EVEN THOUGH SHE WAS APOLOGIZING, WERE LIKE, OH, NO, THAT'S OKAY, VERY PATIENT, SUPER PATIENT, RIGHT WITH HER. AND THEN THEY GOT THROUGH SO SHE WAS SUPER HAPPY AT THE END. BECAUSE NOBODY LOST HER COOL, THAT KIND OF THING.

THE KAIKUAʻANA BEHAVED REALLY
WELL. BUT AT THE SAME TIME, DID THAT
CHANGE HER BEHAVIOR AS KAIKAINA?
RIGHT? DID IT MAKE HER FEEL MORE
RESPONSIBLE TO LEARN, TO START
PRACTICING OR START GETTING BETTER?
AND I DON'T THINK IT DID. RIGHT. I
THINK WHAT IT DID WAS THAT SHE
FOUND A WAY TO GET THROUGH IT
WITHOUT HAVING TO, YOU KNOW, SINCE
THIS IS ALL IT IS", YOUNGER
KAIKUAʻANA HAVING LOTS OF PATIENCE
FOR OLDER KAIKAINA STUDENT, "THE
STRATEGY THAT I WANTED TO USE THIS
TIME WAS, WE HAVE SUCH A DIFFICULT
TIME, OR AT LEAST TIME CONSUMING,
AND GETTING EVERYBODY UP TO SPEED,
LIKE GETTING THEM REGISTERED ON THE
PLATFORM. SO THAT'S WHY WE STARTED
EARLY. AND SO THAT HELPED. BECAUSE,
YOU KNOW, I THOUGHT MAYBE TWO
CLASS PERIODS WOULD TAKE IT, BUT
ACTUALLY ENDED UP BEING THREE. AND
FOR SOME, FOUR, BECAUSE OF, YOU
KNOW, TECHNOLOGY, YOU ALWAYS
HAVE DIFFERENT KINDS OF THINGS
HAPPENING, MICROSOFT CHANGING
THEIR, THE WAY THAT MINECRAFT
WORKS. AND THE WAY YOU REGISTER
TOO,", STARTING MINECRAFT EARLY
ALLOWING TIME FOR RESOLUTION
TECHNOLOGICAL CHALLENGES, EARLY
MINECRAFT START, "SO WE HAVE10
SESSIONS OF MINECRAFT SCHEDULED
THROUGHOUT THE SEMESTER WITH, YOU
KNOW, AND I THINK I LIKED THAT
PATTERN, WHERE IT WAS KIND OF
SPREAD OUT. AND IT KIND OF INFORMED
ON THE READING MATERIALS THAT WE
WERE DISCUSSING. ALSO, YOU KNOW, AS,
AS THEY'RE GOING THROUGH IT, THEY
COULDN'T REALLY UNDERSTAND THE
CONNECTIONS, THOSE WHO ARE
ADVERSE TO VIDEO GAMES OR
ANYTHING. BUT BEING GOOD STUDENTS,
THEY HUNG IN THERE. BUT THEN WHEN

WE FINALLY REACHED THE END, THEY UNDERSTOOD IT ALL", STARTING MINECRAFT EARLY AND SPREADING OUT THROUGH SEMESTER ALLOWED FOR INTERPLAY WITH COURSE CONTENT AND UNDERSTANDING OF MINECRAFT'S VALUE IN THE END, EARLY MINECRAFT START VALUED, "CONVENIENCE. IT'S EXTREMELY CONVENIENT. IT ALSO ALLOWS YOU TO WATCH THEM IN ACTION, WHICH IF THEY WERE DOING, YOU KNOW, A PROBLEM BASED PROJECTS ON THEIR OWN, I WOULDN'T BE ABLE TO SEE ANY OF IT, AND ACTUALLY, THEY COULD INVENT ALL THE DATA, RIGHT? THEY COULD JUST MAKE UP STORIES. AND I'D NEVER KNOW, WELL, WHETHER THAT'S TRUE OR NOT. THIS I GOT, I GET TO ACTUALLY SEE WHAT'S HAPPENING. I THINK THAT'S IMPORTANT. BECAUSE FOR THEM, THEY REALIZE THEIR ACTUAL ACTIONS ARE ACCOUNTABLE. RIGHT? BECAUSE, YOU KNOW, THEY KNOW, LIKE, WHEN THEY SEE MY AVATAR IN THE GAME, RIGHT, THEN THEY GO, WHO'S THAT? AND THEN THEY GO, OH, THAT'S KUMU. OH, AND THEY GO QUIET. SO THE FACT THAT THEY KNOW, THE TEACHER IS IN THE ROOM, RIGHT? OR THE KUMU IS THERE GENERATES, YOU KNOW, I GUESS THE MOTIVATION TO CONFORM OR TO, TO DO THE RIGHT THING. AND IT'S IN THAT PERFORMANCE, RIGHT, THAT THEY DO, THAT THEY START REALIZING] YOU KNOW, WHY THEY'RE THERE. RIGHT. AND THEY START TO ENGAGE IN THEIR, IN THEIR EXERCISES. YOU KNOW, I THINK WE ALL ENGAGE SOMEWHAT IN THE ACADEMIC EXERCISES, ARTIFICIALLY, RIGHT? OR, OR ON A SURFACE LEVEL. AND, AND THE KEY IS TO GET DOWN DEEP, RIGHT, INTO WHERE THEY'RE, THEY'RE REALLY CRITICALLY THINKING ABOUT EVERYTHING AND, AND REALLY THEIR OWN EXPERIENCE, RIGHT?", SEEING STUDENTS IN ACTION, ENSURING

STUDENTS ENGAGE, CONVIENCE TO SEE STUDENTS IN ACTION, ENSURING ENGAGEMENT, PROVIDING GUIDANCE, "BECAUSE WE HAD ONE GROUP THAT JUST WASN'T COMMUNICATING, I THINK, IF ANYTHING THAT WAS SURPRISING. THAT TURNED, TURNED IT AROUND WAS, YOU KNOW, GOING INTO THEIR BREAKOUT ROOMS, AND NOT HEARING VERY MUCH CONVERSATION. AND THEN JUST SAYING, OKAY, I'M GONNA CLOSE THESE BREAKOUT ROOMS, IN FIVE MINUTES WE'RE GOING TO COME IN. AND THE ONLY COMMENT I GAVE THEM ... YOU GUYS NEED TO TALK MORE. AND THEY ALL MENTIONED THAT. ONCE WE STARTED TALKING, IT WAS ALL MUCH BETTER.", GIVING GUIDANCE TO GROUPS NOT COMMUNICATING, "WHAT I LIKED ABOUT IT, IS THAT WHEN I SAW THAT THEY'RE NOT COMMUNICATING, RIGHT? THEY'RE ACTUALLY SPENDING LOTS OF TIME JUST, QUIET, TRYING TO FIGURE IT OUT. ALREADY, THAT'S A RED FLAG FOR ME, RIGHT? SO I CAN THEN TALK TO JULIAN AND TYTUS AND START TO SEE HOW CAN WE GET THEM TO TALK MORE RIGHT? WHAT CAN WE DO? AND THEN THEY WILL COME UP WITH OTHER SCENARIOS THAT THEY WOULD CREATE, THAT WILL CHANGE THE SITUATION FORCED THEM TO, TO INTERACT WITH EACH OTHER, AND COMMUNICATE WITH EACH OTHER", INTERVENING WHEN COMMUNIATION IS NOT HAPPENING, INTERVENTION CAPABILITY OF MINECRAFT, "IN THE ACADEMIC SIDE OF THE COURSE, THEY LEARN WHAT THE PROTOCOLS ARE. BUT THEY ALSO LEARN THE REASONS FOR THEM. RIGHT? AND BASICALLY, WHAT THE PROTOCOLS ARE, IS A BEHAVIOR CHANGE, RIGHT? AND BEHAVIOR CHANGES ARE HARD SOMETIMES TO WITNESS, YOU KNOW, OR ASSESS, BECAUSE THEY, BECAUSE A CLASS ONLY LASTS 80 MINUTES, AND IT'S

HARD TO SEE IF THAT CHANGE HAPPENED. IF THEY REALLY INCORPORATED IT. MINECRAFT GIVES YOU A WINDOW INTO THAT, WHETHER IT'S INCORPORATED OR NOT, OR ANY KIND OF SITUATION LIKE THAT. MORE SO THAN THE FACE TO FACE PROBLEM BASE SOLVING. BECAUSE I WASN'T WITNESS TO THAT, I HAD TO DEPEND ON WHAT THEY WROTE. AND WHAT THEY REPORTED. THIS ONE I GOT TO ACTUALLY SEE.", SEEING BEHAVIORAL CHANGES IN MINECRAFT, OBSERVATION CAPACITY IN MINECRAFT, "ONE OF MY MAJOR CONCERNS IS I NEED OLDER STUDENTS. OR I NEED STUDENTS WHO DO NOT LIKE VIDEO GAMES, BECAUSE THAT CAUSES THE RUB. RIGHT? IF THEY'RE ALL GOOD WITH VIDEO GAMES, THEN WHAT HAPPENS? IT'S JUST A COMPETITION BETWEEN EACH OTHER.", NEEDING THE DYNAMIC OF STUDENTS ADVERSE TO VIDEO GAMES, DYNAMIC OF STUDENTS ADVERSE TO VIDEO GAMES VALUED, "WITH THE LARGER CLASS, YOU HAD, YOU HAD LOTS OF PEOPLE, RIGHT? YEAH, I HAD 4 GROUPS, AND THEY'RE ALL EXCITED, THEY'RE ALL TRYING TO COMPETE WITH EACH OTHER, THERE'S A SENSE OF URGENCY, WHEN YOU HAVE COMPETING GROUPS, RIGHT? THAT YOU TEND TO HANG WITH YOUR GROUP, YOU TEND TO TALK TO EACH OTHER, BECAUSE YOU WANT YOUR GROUP TO OUTSHINE THE OTHER GROUPS, BUT WHEN IT'S JUST ONE GROUP, THEN YOU DON'T HAVE THAT SENSE OF URGENCY THERE, RIGHT? YOU JUST HAVE, UH OH, I'M KIND OF GONNA BE, YOU KNOW, EXPOSED HERE. AND MY WEAKNESSES, I GOTTA COVER UP AS BEST AS I CAN, BY NOT COMMUNICATING. SO THAT'S THE BIGGEST THING THAT I SAW BETWEEN, THE CHALLENGE AND THAT KIND OF CHALLENGE, AND I THINK, IF ANYTHING THAT OPENED MY EYES TO OKAY SO I

NEED TO BE COGNIZANT OF WHAT THE DYNAMICS ARE IN THE CLASS", COMMUNICATING PREVELANT AMOUNG CLASSES WITH LARGER NUMBER OF GROUPS AND COMPETITIVE CHALLENGES, LARGER NUMBER OF GROUPS AND COMPETITTIVE CHALLENGES SPUR COMMUNICATION] Data Codes from Document Review: ["THE HARDEST PART OF THE MINECRAFT JOURNEY WAS THE FARMING PROCESS AND MATERIAL GATHERING CHALLENGES. IN THESE CHALLENGES, WE HAD TO COLLECT A SUM OF WOOD, PUMPKINS, WHEAT, EGGS, AND CARROTS. WHEAT AND WOOD WERE EASY FOR THE GROUP TO COLLECT DUE TO SEEDS AND WOOD BOTH BEING ABUNDANT MATERIALS. HOWEVER, DUE TO MINECRAFT BEING A GAME THAT HAS MANY PARTS TO LEARN, FINDING AND FARMING CARROTS, EGGS, AND PUMPKINS WAS HARDER FOR THE GROUP. IN THESE TIMES, I FOUND THE CHALLENGE TO BE A LITTLE HARDER BECAUSE IT TRULY WOULD TAKE A WHILE FOR THE GROUP TO LEARN EFFICIENT FARMING PATTERNS AND TECHNIQUES WITHIN THE GAME.", LEARNING MINECRAFT GAMEPLAY SKILLS A CHALLENGE, LEARNING MINECRAFT GAMEPLAY, "I KNEW I HAD NO EXPERIENCE WITH GAMING OR ANYTHING REMOTELY CLOSE TO MINECRAFTING BUT DIDN'T ANTICIPATE SUCH FRUSTRATION FROM BEING SO UNEDUCATED AND UNSKILLED IN ALL THE TASKS. I WENT IN MA'A (ACCUSTOMED) TO THE LEADING KAIKUA'ANA ROLE IN LIFE. TYPICALLY I CAN OFFER SKILL AND INSIGHT BUT, NOT IN THIS CASE. I WAS COMPLETELY OUT OF MY ELEMENT. NO MATTER HOW MUCH I TRIED TO LEARN ON MY OWN TO COME PREPARED, I HAD EVERY UNEXPECTED PROBLEM ARISE LEAVING ME FEELING

HELPLESS. NORMALLY THE PERSON WITH CONTROL, MY HARDEST LESSON WAS ALLOWING THE EXPERIENCE TO UNFOLD.", FEELING OUT OF ELEMENT, HELPLESS, AND FUSTRATED AS AN UNSKILLED KAIKAINA, FUSTRATION, "I HAVE NEVER BEEN VERY GOOD AT VIDEO GAMES, LET ALONE COMPUTER VIDEO GAMES, SO IT WAS NOT A SURPRISE TO ME. HOWEVER, IT WAS FRUSTRATING BECAUSE I COULD NEVER STAY IN THE GAME LONG ENOUGH. IT WAS LIKE AS SOON AS I FELT EVEN A LITTLE BIT CONFIDENT, BEING ABLE TO KEEP UP WITH THEM, I WOULD LOSE THEM AGAIN.", LEARNING GAMEPLAY SKILLS AND BEING UNFAMILIAR LEADING TO FUSTRATION, FUSTRATION, "AFTER THOSE 45 MINUTES WERE UP AND EVERYONE WAS ABLE TO GET INTO THE GAME LEADING TO THE ORIGINAL BEACON WE BEGAN FROM THE START OF ADJUSTING TO MINECRAFT. IT WAS FRUSTRATING AT FIRST AND STILL IS TO THIS DAY, BUT IT'S A WORKING PROGRESS.", PROGRESSING THOUGH FUSTRATED, FUSTRATION, "DURING THAT TIME, WITH THE HELP OF KUMU TYTUS, HE WAS WILLING ENOUGH TO TRANSPORT US TO MY GROUP'S OLD HOUSE THAT I LATER FOUND AFTER CLASS(STAYING ON THE MINECRAFT GAME).", SPENDING TIME IN MINECRAFT OUTSIDE OF CLASS TIME, GAINING EXPERIENCE OUTSIDE OF CLASS TIME, "TODAYS LESSON, WE WERE APPOINTED ON A JOURNEY; RACING TO THE END OF EACH ROOM TRIALED WITH LAVA, WEIRD SHAPED CLIFFS, SKELETON ATTACK AND HIGH CLIFF JUMPS. IT WASN'T EASY, ALTHOUGH IT WAS VERY FRUSTRATING. IN THE FIRST ROOM, WE HAD TO JUMP FROM BLOCK TO BLOCK TO GET TO TOWARDS THE OTHER SIDE OF THE ROOM. I COULD UNDERSTAND HOW I KEPT ON FALLING INTO LAVA. I WOULD

ANGLE MY POINTER IN WAY WHERE I AM ABLE TO JUMP ON TOP OF THE BLOCK, ITSELF, YET, BEING THE ONLY PERSON IN MY GROUP TO START REPEATEDLY. I EVENTUALLY, MADE IT TO THE NEXT ROOM, BUT WE HAD HELP FROM NA KUMU WHO CREATED ANOTHER TILE THAT'D EXTEND CLOSER TO THE CLIFF.", EXPERIENCING FUSTRATIONS IN GAME ACTIVITITES, IN-GAME FUSTRATION, "FIRST OF ALL, BEING THAT MY LAPTOP IS VERY TEMPERAMENTAL AND DOESN'T WORK WELL, THE LAST FEW TIMES I GOT READY I TRIED TO SOMETHING DIFFERENT. I TRIED AND SET UP MY ZOOM ROOM WITH KUMU AND AT LEAST GET MY MINECRAFT GAME READY TO GO. TODAY I COULDN'T GET THE ZOOM ROOM TO OPEN UP SO I USED MY IPAD FOR THE ZOOM AND THE LAPTOP FOR THE MINECRAFT GAME. I GAVE KUMU A HEADS UP SO HE KNEW THAT IF I COULDN'T GET INTO THE GAME THAT HE WOULD KNOW WHERE I WAS AND IF I WAS ENCOUNTERING ANY DIFFICULTIES. TODAY'S MINECRAFT WAS A LITTLE FRUSTRATING BUT NOT AS FRUSTRATING AS IT WAS IN THE PAST. I FELT I ACCOMPLISHED SOMETHING IN TODAY'S CLASS. IT WAS KINDA GOOD THAT WE WERE JUST PLAYING AT OUR OWN PACE AND NOT AS A TEAM BECAUSE I WOULD HAVE FELT THAT I LET DOWN MY TEAM AGAIN.", EXPERIENCING SOME FUSTRATIONS, FUSTRATION, "THE HARDEST PART FOR ME TO FIGURE OUT IS HOW TO RUN (HOLDING W CONSTANTLY) AND JUMP (SPACE BAR). I FELT PRETTY GOOD IN GETTING ACROSS THE BLOCKS BUT THEN FELT DEFEATED WHEN I WOULD FALL IN THE LAVA. THE JUNK PART IS THAT WHEN YOU DIE, YOU HAVE TO START AT THE BEGINNING.", HAVING DIFFUCLTY LEARNING TO RUN IN GAME, FEELING DEFEATED WHEN DYING IN GAME, FUSTRATIONS, "AS A "MA KA

HANA KA 'IKE" LEARNER IT REALLY PUT
THE RELATIONSHIP INTO PERSPECTIVE
FOR ME WHILE PLAYING MINECRAFT.
MINECRAFT IS A GAME WHERE SURVIVAL
IS KEY AND WORKING TOGETHER WITH
TEAMS OR ALLIANCES PROVES FOR
SUCCESSFUL GAME PLAY. THIS WAS THE
FIRST TIME I EVER PLAYED MINECRAFT
AND IN THE BEGINNING IT WASN'T SO
BAD. COLLECTING MATERIALS, BUILDING
A HOUSE, LEARNING TO GROW CROPS,
AND KILLING A ZOMBIE OR TWO WAS
DOABLE. PLAYING ALONE AT HOME
TRYING TO GET FAMILIAR WITH THE
GAME WAS OKAY BECAUSE I COULD
LEARN AND DO THINGS AT MY OWN
PACE. THE DRAW BACK TO PLAYING
ALONE WAS THAT I HAD NO ONE TO TALK
TO AND ASK FOR ADVICE OR HELP WHEN
I NEEDED IT.", LEARNING THROUGH
DOING, LEARNING AT OWN PACE
OUTSIDE OF CLASS, LEARNING THE
GAME, "A FEW TEAM MEMBERS ENLISTED
THE ASSISTANCE OF KEIKI IN OUR
FAMILIES TO TEACH US HOW TO MOVE,
MINE, AND BUILD SO THAT WE COULD
GET AHEAD OF THE GAME AND BE
CONTRIBUTING MEMBERS. THE KEIKI
WOULD ASSUME THE KAIKUA`ANA ROLE
AND THIS REFLECTED AN ASPECT OF
COOPERATIVE EFFICIENCY WHERE WE
VOLUNTARILY WORKED TOWARDS THE
BETTERMENT OF THE TEAM. ASKING MY
MO`OPUNA WAS ANOTHER LEVEL OF
KAIKUA`ANA – KAIKANA RELATIONSHIP
THAT I EXPERIENCED BECAUSE THEY
HAD MORE EXPERIENCE AND SKILL IN
PLAYING MINECRAFT THAN ME. THIS
WORKED OUT FINE EXCEPT AS THE
KAIKUA`ANA IN OUR FAMILY
HIERARCHY, I FAILED TO EXPLAIN THE
KAIKUA`ANA – KAIKAINA RELATIONSHIP
TO MY MO`OPUNA. CONSEQUENTLY,
THEY WOULD TAKE POSSESSION OF THE
GAME AND QUICKLY SHOW ME HOW IT IS
PLAYED. THIS WAS A LESSON OF HOW

IMPORTANT CLEAR AND FOCUSED COMMUNICATION IS TO ACHIEVING THE TASK.", LEARNING OUTSIDE OF CLASS, LEARNING FROM KAIKAINA IN FAMILY, ROLE SWITCHING, OUT OF CLASS LEARNING, "WITH THE SERVER BEING ACCESSIBLE, WE CAN BUILD UP RELATIONSHIPS OUTSIDE OF CLASS THROUGH EXPLORATION, CREATION AND COMMUNICATION IN A VIRTUAL WORLD, IT CREATES MOMENTS THAT GIVE OPPORTUNITIES TO KNOW OUR PEERS BETTER.", EXPLORING MINECRAFT OUTSIDE OF CLASS, OUT OF CLASS GAMEPLAY, I DEDICATED SOME OF MY LEISURE TIME TO BUILD MY OWN HOUSE AND GET TO EXPERIENCE AND ALSO DEVELOP PLANNING SKILLS. I AM THANKFUL THAT WE WERE ABLE TO PLAY VIDEO GAMES IN CLASS, AND IT WASN'T JUST ANY AVERAGE GAME, IT GAVE US LIFE EXPERIENCES THAT WE WILL NEED IN LIFE.", DEDICATING OUT OF CLASS TIME IN MINECRAFT, OUT OF CLASS TIME LEARNING, "TO PREPARE FOR OUR FIRST MINECRAFT DAY I IMMEDIATELY CALLED MY 4-YEAR-OLD NEPHEW. HE PLAYS MINECRAFT ALMOST EVERY DAY SO I KNEW HE WOULD BE ABLE TO TEACH ME HOW TO PLAY, OR AT LEAST GIVE ME THE BASIC CONTROLS. I HAVE SEEN HIM PLAY THE GAME BEFORE, BUT IT NEVER CAUGHT MY INTEREST ENOUGH TO WANT TO LEARN HOW TO PLAY IT. AS SOON AS HE AGREED TO HELP, I THOUGHT THIS WOULD BE EASY, BUT HOW I WAS SO WRONG. MY NEPHEW WAS GETTING FRUSTRATED WITH ME OVER EVERY LITTLE THING. DO NOT GET ME WRONG, HE WAS NICE ABOUT IT AND EVEN SHOWED MORE PATIENCE THAN I EXPECTED HIM TO HAVE. HOWEVER, AFTER A WHILE HE GAVE UP AND STARTED PLAYING BY HIMSELF. THAT WAS A WEIRD EXPERIENCE FOR ME SINCE I HAD TO

LOOK TO MY NEPHEW FOR HELP. I WAS ASKING A 4-YEAR-OLD AS A 25-YEAR-OLD HOW TO DO A COLLEGE ASSIGNMENT BASICALLY. THE ROLES WERE REVERSED, AND I WAS NOT SURE HOW TO TAKE IT. I COULD NOT GET MAD AT HIM FOR NOT HAVING A LONG ENOUGH ATTENTION SPAN TO FOCUS ON JUST ONE TASK.", ATTEMPTING TO RECEIVE HELP FROM YOUNGER FAMILY MEMBER, ROLE SWITCHING, OUT OF CLASS MINECRAFT LEARNING, "AFTER WATCHING MANY YOUTUBE VIDEOS, GOOGLING, AND RANDOMLY PRESSING BUTTONS TO SEE WHAT WOULD HAPPEN, I GAINED THE BASIC KNOWLEDGE I NEEDED TO PLAY THE GAME.", STUDYING OUT OF CLASS TO LEARN MINECRAFT BASICS, OUT OF CLASS MINECRAFT LEARNING, "AT THE BEGINNING OF THE SEMESTER WHEN I LEARNED WE WERE GOING TO BE PLAYING MINECRAFT I WAS HONESTLY UNNERVED. I DIDN'T UNDERSTAND WHAT MINECRAFT WOULD HAVE TO DO WITH HAWAIIAN CULTURE AND I STARTED TO REGRET SIGNING UP FOR THIS CLASS.", OLDER STUDENT BEING UNNERVED AND REGRETTING TAKING CLASS BECAUSE CONNECTION TO MINECRAFT NOT SEEN EARLY ON, RESISTANCE TO MINECRAFT, "THERE WERE A LOT OF EMBARRASSING MOMENTS FOR ME, DUE TO MY FRUSTRATIONS FLARING UP DURING CLASSES WHERE WE PLAYED MINECRAFT AS A GROUP. FRUSTRATIONS WOULD ARISE BECAUSE I COULDN'T SEEM TO REMEMBER THE KEY FUNCTIONS VERSUS THE MOUSE FUNCTION AND HOW THEY WERE CONNECTED TO THE GAME ITSELF. I ALSO DIDN'T LIKE THAT I COULDN'T CREATE A FANTASTIC HOUSE LIKE MY CLASSMATES COULD BECAUSE I ONLY HAD THE BASIC UNDERSTANDING OF WHAT TO DO.", BEING FUSTRATED AT NOT BEING ABLE TO REMEMBER KEY

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AND MOUSE FUNCTIONS, FUSTRATION, "EACH TIME WE WENT ON MINECRAFT BOTH DURING MY PRACTICE TIME AND DURING CLASS, I BECAME MORE CONFIDENT IN WHAT I NEEDED TO DO AND LEARNED HOW TO NOT PANIC WHEN THINGS WERE NOT WORKING TO MY ADVANTAGE (LOL). "NOT WORKING TO MY ADVANTAGE" REFERS TO THE MOMENTS WHERE I KEPT DYING, OR COULDN'T FIGURE OUT HOW TO JUMP IN THE BOAT, OR OUT OF THE BOAT, MAKE MY WAY THROUGH DARK BUSHES, OR THE DARK OCEAN. TO BE HONEST, I WOULD STILL FORGET HOW TO DO CERTAIN THINGS, SO I WOULD HAVE TO CONSTANTLY REFER TO THE "OPTIONS" BAR TO TRY TO REMEMBER.", BECOMING MORE CONFIDENT IN MINECRAFT WITH EACH EXPERIENCE, PRACTICING MINECRAFT OUTSIDE OF CLASS, LEARNING GAMEPLAY IN MINECRAFT]

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