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AN EXAMINATION OF GAMING ENVIRONMENTS IN *DUNGEONS & DRAGONS*
GROUPS

by

Joe Lasley

A dissertation submitted in partial fulfillment
of the requirement for the degree of

Doctor of Philosophy

May 2020

Dissertation Committee

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IN *DUNGEONS AND DRAGONS* GROUPS

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ABSTRACT

Tabletop Role-Playing Games (TRPG) like *Dungeons & Dragons* are unique phenomena within the topics of game-based learning and gamification of leadership development. Games in general are used for both game-based learning (learning from playing games) and as sources of inspiration for gamification: the application of game design elements in non-game contexts like business or education. Many potential benefits of playing TRPGs have been observed including transformative experiences linked to collective creativity. Knowing more about the transformative potential of TRPGs can inform facilitation of creative learning environments and guide the use of TRPGs for leadership development.

The concept of a holding environment frames play and creativity as activities that promote personal growth embedded in a psychological or group environment. Drawing from a developmental environment framework, a gaming environment can be considered as the psychological group environment present while playing a TRPG. Applying this developmental environment framework to TRPG groups builds on previous research that reports transformative growth in TRPG experiences by providing a group level of analysis. This research explored gaming environments in TRPGs, specifically *Dungeons & Dragons 5th Edition (D&D 5e)*.

This qualitative study employed content analysis, group observations, and interviews for data collection and analysis. A group of participants was solicited to play *D&D 5e* specifically for this research. Thematic analysis was used to identify group interaction patterns by observing the group playing *D&D 5e* over the course of several sessions. Then, semi-structured interviews with the participants were conducted to

investigate individual perspectives of specific observations from the group sessions. Interview topics included descriptions of the group of players, defining events in the group, and factors influencing the play experience. Recordings of gaming sessions and transcripts of individual interviews were subjected to continued analysis. Findings indicated that the gaming environment was a psychologically layered container which depended on the use of authority in leader-member relationships and utilized framing and storytelling processes for containing emotions. These findings can be used to inform the design of TRPGs for leadership development and expand how we construct knowledge about group environments in creative contexts.

Keywords: gaming, holding environment, role-playing, leader-member exchange

DEDICATION

For all who foster environments in which people create and experiment with new ways of being that lead to collective transformation and a socially just future. This dissertation is dedicated to the people who have indulged my imagination, supported education, joined in gaming, or accompanied me leadership development adventures.

ACKNOWLEDGEMENTS

Thank you to Dr. Cheryl Getz for modeling the importance of presence, opening doors of opportunity, and advising me as a leadership educator and student. Also, Dr. Zachary Gabriel Green for showing me an exciting way to embody play, teaching, leadership, and human development on all levels. To Dr. Sarah Lynne Bowman for writing the works that inspired me to pursue this path of study and for sharing her expertise about the transformative potential of role-playing. I am grateful for all of my relationships with professors, classmates, and fellow players that have challenged me and co-created meaningful community experiences on this journey.

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CHAPTER ONE

BACKGROUND

In all areas of life, there exist complex leadership challenges. The most problematic of these leadership challenges can be considered *adaptive challenges* which have been described by Heifetz & Linsky (2002) as not responsive to current knowledge or routine operations. To address these challenges, we must break from the standard operating procedures of the past and view our reality as a process that is calling us to rapidly create a new way of being in the world. It comes as no surprise that creativity is the subject of much attention in business and education. The World Economic Forum and Harvard Business Review list creativity among top skills rising in demand for living into the future. Creativity is recognized as an essential 21st century skill in education (Kupers, Lehmann-Wermser, McPherson, & van Geert, 2019). Designing leadership for the use and development of creativity can have many potential benefits for those concerned with the impact of creativity on work and learning that attempts to prepare leadership and face complex challenges.

One fitting arena for creative inquiry is in games. Games can be used for both game-based learning and as sources of inspiration for gamification: the application of game design elements in non-game contexts like business or education (Karagiorgas & Niemann, 2017). Game-based learning has been used to enhance deep learning but requires further investigation to inform and enhance these efforts (Crocco, Offenholley, & Hernandez, 2016). Tabletop Role-Playing Games (TRPG) in particular are unique phenomena that can serve as meaningful subjects of focus within the topics of game-based learning or gamification of leadership.

Many potential benefits of playing TRPGs have been observed that inspire further inquiry. Groups have reported powerful experiences involving collective and interactive formation of game narratives (Cover, 2010). The tabletop arenas for fantasy role-playing games “...provide spaces in which players can exercise identity, agency, and creativity as well as communicate important cultural markers” (Cragoe, 2016, p. 595). Role-playing is a tool for using, revealing and developing several soft skills, including creativity and leadership, depending on the game design (Daniau, 2016). The leadership and creativity reported in TRPG experiences constitute aspects of game design that may influence learning and development.

Among other TRPGs, *Dungeons & Dragons (D&D)* has seen a dramatic rise in popularity and an increase in the use of the game as a therapeutic interaction and educational tool. This has created a two-fold need for leadership scholars, practitioners, and educators to understand *D&D*, the context around *D&D*, and its potential use in leadership settings. People of all ages may relate to *D&D*, characters created, and storylines within the game, making it a topic of interest for educators wanting to relate to students. Additionally, there is potential for leadership development in playing *D&D* that can be leveraged in a group setting while playing the game. Applied Role-Playing Games, used in schools and therapy settings, are already being played by educators and clinicians around the world within *D&D* group settings and have shown promise working with social skills and identity development (Granshaw, 2018).

Purpose and Research Questions

This study explored psychological environments that exist among TRPG players and groups. I refer to a gaming environment as the psychological, group, and experiential

environment present while playing a TRPG. Studying gaming environments in TRPGs specifically can help shed light on how the use of TRPGs could be beneficial in leadership development and education. In addition to gaining a deeper understanding of TRPGs, findings about gaming environments can be used to inform design for both game-based learning and gamification efforts that desire to foster the kind of development, such as collective creativity, that has been reported in TRPGs. Understanding how gaming environments are formed in TRPGs may also inform efforts to establish or enhance other creative learning environments. The purpose of this study was to investigate gaming environments in *Dungeons & Dragons 5th Edition (D&D 5e)* and was guided by the following research questions:

1. What constitutes a gaming environment in a group playing *D&D 5e*?
 - a. What group interaction patterns were observed in a *D&D 5e* gaming environment?
2. What group dynamics were observed in a group playing *D&D 5e*?
 - a. How was group formation involved with the creation and maintenance of a *D&D 5e* gaming environment?
3. How did leadership contribute to a gaming environment in a group playing *D&D 5e*?
 - a. What practices and strategies were identified that supported/inhibited the construction of a *D&D 5e* gaming environment?

Educators hoping to benefit from the knowledge of gaming environments and use of *D&D* first need to learn about its recent rise in popularity, what the game entails, some relevant context in the history of the game, psychological impact in the game, and

critiques of power and exclusion inherent in both the cultural context and structural history of *D&D*. Some of these areas will be continued in Chapter 2: Theory. One can begin by understanding that *D&D* is one of many tabletop role-playing games.

Tabletop Role-Playing Games

There are many individual titles for games that are considered examples of tabletop role-playing games (TRPG) including, *Dungeons and Dragons*, *Call of Cthulhu*, *Vampire: The Masquerade*, and *Pathfinder*. Tabletop games are traditionally played through social interaction around a table. The advancement of technology has allowed virtual versions (ex. Google Hangouts) of such games though the premise remains the same, a group of people gather to role-play characters in a game in which the set of rules and objectives is moderated by interactions between players rather than the preprogrammed computer coding found in video games. Video games depend on the use of computer programming as a system that provides the mediation of rules and interactions within the game environment. In TRPGs, players and social dynamics constitute the system which mediates rules and interactions within the imaginary game environment.

Fantasy represents a genre of games that involve imaginative creation of alternate realities and narratives with themes that often utilize science fiction or settings similar to the works of J.R.R. Tolkien to visualize content (Cover, 2010). TRPGs rely on role-playing, which is understood as the inherent human act of shifting roles using imagination, as a primary mode of communication (Bowman, 2010). Players conceptualize multiple frames, or perspectives, while role-playing characters and acting as players in fantasy gaming experiences (Fine 1983).

Rise in Popularity

Dungeons and Dragons (D&D), initially published in 1974, is the first formalized game of this type and is perhaps the most widely recognized name. The game is experiencing an unprecedented surge in popularity, with record sales each year and famous celebrities speaking publicly about their love for the game (Weiss, 2018). Numerous live-play *D&D* podcasts and internet video streaming sites have emerged in recent years which are also connected to increasing interest. Popular titles include *Critical Role*, *Adventurers Inc.*, *Girls Guts Glory*, *Dice Camera Action*, *Drunks and Dragons*, *Misscliks*, *High Rollers*, and *Dragon Friends*. *Critical Role* is one of the best-known *D&D* streams. *Critical Role* published its first live-recorded episode in March 2015, and a successful Kickstarter campaign in March 2019 raised over \$11 million.

Fans of *Critical Role* call themselves “Critters.” Throughout the rise of the show’s popularity, numerous reports surfaced of people feeling inspired by their relationships with the show and experiencing transformation in their games and other areas of life, including work, relationships, and personal well-being. These reports have been the subject of research and illustrate that people are being drawn to *D&D* while using these shows as models in their own games (Lasley, 2017). The impact of these shows involves parasocial interaction but also helps a wider audience gain access to *D&D* by increasing its popularity and reducing barriers to entry. Newly interested players can learn about the game by watching these shows. Shows like *Girls, Guts, Glory*, *The Sirens*, and *Misscliks* provide representation of diverse identities, joining *D&D* celebrities like TJ Storm and Satine Phoenix, which helps reduce historical barriers associated with stereotypes about gamers being smelly white men in their parent’s basements. With an easier, more

accessible understanding of the game, more people from more diverse backgrounds gain confidence in starting their own or joining existing gaming groups and experiencing the benefits of playing *D&D* for themselves.

Dungeons & Dragons

Many editions of *D&D* have been published that each feature a different variation of rule systems and various iterations of lore. The most recent and popular edition of *D&D* is *5th edition (D&D 5e)*. The game is popular despite the publication of long rule books and each game of *D&D* is inherently unique because the way in which the rules are applied can vary from group to group. For example, some players use strict literal applications of “Rules as Written” (RAW) while others avoid constantly looking up exact wording by adjudicating rules in whatever way they agree best serves the story (a highly useful approach for meaning making). *D&D* also highly encourages the use of homebrew content (rules, abilities, items, etc. that are original creations by players). Even among the many varying playstyles and groups, there are basic rules, norms, and experiences that are common across groups that represent a gamer subculture (Fine, 1983).

In a game of *D&D*, players act as characters that (usually) work together to complete quests and achieve both character and game objectives within the imaginary world. The designers of *D&D* state that adventure is the heart of the game and is made up of three pillars: exploration, social interaction, and combat (Mearls & Crawford, 2014). Exploration is about creating and discovering an imaginary world. Social interaction focuses on interacting with characters and objects in the imaginary world. Combat is a structured contest in which characters strategize to defeat opponents. Each of the three

pillars of adventure come together to contribute to the overall adventure experience and form a story.

These games typically involve 4-8 players, one of whom is designated in a facilitator role often called a Dungeon Master or Game Master. Dungeon Master is a title specific to the *D&D* brand while Game Master or Storyteller are titles shared more generally by other games and gamers. This person serves as a narrator, author, facilitator, and referee among other roles while the remaining players take on the roles of specific characters. The dungeon masters (DMs) who facilitate these games use many leadership abilities that are useful in other areas of life, including facilitation, problem solving, and leading collaborative creativity (Bowman, 2010; Cover, 2010; Daniau 2016). The characters work together to complete quests and achieve both character and game objectives within the imaginary world.

In a TRPG, a group of characters (role-played by the players) embark on a quest. Each character has their own motivations, personality, and unique abilities that they use to work together to overcome obstacles (fighting goblins, pathfinding, sneaking past monsters, and persuading guards) and interact with other characters on their journey. The human players are each responsible for creating, improvising, and role-playing as one character (except the dungeon master who acts as a facilitator and narrator). General plot elements are determined in advance by the dungeon master who sometimes uses published adventure modules and settings.

Since there is not a complete script to follow, players are afforded agency to improvise and interact as they feel their character would respond to the various situations that arise. *D&D* players are driven by various motivations, using multiple strategies to

relate to a mental concept of their character held in their subjective experience (Banks, Bowman, & Wasserman, 2017). The dungeon master is responsible for preparing and role-playing as the non-player characters (NPCs; like a guard, villain, or bartender) and other elements of the environment or setting such as describing the landscape or culture of the fictional populace. As the game and story progresses, players build onto their characters personalities to account for the improvised experiences that unfold (a character may develop a fear of water after almost drowning during a mission) and also add abilities to the character's repertoire (ex. a wizard will learn more powerful spells as the game goes on).

A common routine of gameplay might begin with the dungeon master narrating to explain a setting and situation. Players can then interact with NPCs, each other, or fixtures of the environment (ex. Talk to the bartender, open the door, check for traps, attack the goblin) by describing their characters actions to the group. The dungeon master adjudicates outcomes to the players actions using dice according to the rules of the game (rolling higher numbers helps convince the bartender to tell you some secrets or makes it more likely a player will defeat the goblin). Each action is then followed by a description of the outcome and more choices for how the players might respond and proceed. Eventually, the story unfolds through a combination of functions: the players reach some predetermined plot points (completing objectives or overcoming obstacles), the outcomes of player actions and dice rolls create unforeseen outcomes, and players improvise scenes while interacting with each other role-playing as their characters. Together, the players achieve game objectives while also creating a story. In doing so, they make meaning from the experience for both themselves and their characters.

TRPGs are interesting phenomena that involve collective meaning creation and exist within a concrete game system and cultural context. This is intriguing for leadership studies given the importance of social meaning making relative to systems in which shared meaning is created. Collective creativity and shared meaning making has been reported as a major component of TRPG experiences (Cover, 2010). Daniau (2016) reported the use of critical reflection to debrief TRPG experiences which facilitated transformational learning as a way of deepening and transferring learning beyond the game experience. Playing TRPGs has also been reported to build a powerful sense of community among the players (Bowman, 2010). TRPGs are examples of social meaning making in a cultural context that builds community and, as such, are relevant arenas for phenomenological leadership inquiry.

Developmental Environments

Using D&D as the subject of inquiry in this study, the holding environment is of particular interest due to its association with development. The psychological environment, including perceptions of psychological safety, established when engaging in TRPGs may impact creative experiences similar to how psychological safety has been shown to mediate creativity in workgroups (Yi, Hao, Yang, & Liu, 2017). The developmental influences of environments and group context are important topics to consider in an examination of gaming environments.

In particular, the works of Winnicott (1965) and Bion (1959), are relevant for exploring developmental group environments. Winnicott (1965) referred to a psychological experience, which he called holding, that enables growth by providing a balance of comfort and challenge that allows individuals to gradually integrate difficult

emotions into their conscious experience. On the group level, Bion (1959) described a psychological container that holds a group's emotions and must similarly be good enough for development. Similar to holding, in Bion's (1959) container concept, unconscious emotions are acted out in a group until they are processed into more palatable forms for individuals to experience consciously. A gaming environment is the psychological group environment experienced while playing TRPGs, making these frameworks suitable for an investigation of a gaming environment.

Significance

Studying gaming environments in TRPGs specifically can help shed light on how the use of TRPGs could be beneficial in leadership development. In addition to gaining deeper understanding about TRPGs, findings can be used to inform game design for both game-based learning and gamification efforts that desire to foster the kind of development, such as collective creativity, that is reported in TRPGs. Understanding how gaming environments are formed in TRPGs may also inform efforts to establish or enhance other creative learning environments. More research is needed to help understand the broader population and include other groups.

The significance of this study is best considered in a nontraditional sense described by Donmoyer (1990) as allowing us to experience narratives that expand our construction of knowledge. Game-based learning is itself a way of expanding knowledge of education through the unique combinations of game design and pedagogy. Understanding the gaming environments in this study will serve as an asset by expanding our knowledge of group environments. This study identified particular aspects of a

gaming environment that were especially salient, beginning the process of attributing gaming and group formation to leadership in a developmental environment.

These findings contribute to scholarship of TRPGs by providing a deep understanding of the psychological environment examined in this study. A content analysis and group observations led to finding that players *merge* frames of experience with adeptness in TRPGs. This is a deeper understanding of perspective framing in TRPGs than previously provided by notions of frame *switching*. Particularly, this study adds findings by combining of group observations and individual interviews. Utilizing a combination of methods highlighted ways in which individuals reported their experiences differently and similarly to what was observed in the group. Doing so provided data for analysis beyond self-reporting from memory and allowed for a deeper understanding of meaning making.

The use of applied TRPGs for experiential learning and development is a burgeoning practice that can be enhanced with knowledge about meaning making in developmental environments. Notably, TRPG environments are associated with uniquely creative and developmental experiences. Organizations that use applied TRPGs in developmental or educational ways include Leyline Education, Game to Grow, Gamenamic, and Roll Play Lead. This study learned about a TRPG environment by utilizing developmental frameworks. Such knowledge can be used to inform the design of experiential learning and development in practice.

This study also identified how leadership was involved, via leader-member exchange and psychological safety, in the creation of a gaming environment. Such findings are relevant for leaders to better understand how they can contribute to a group

environment in a creative context. Finding an in-depth link between leadership and the creation of a gaming environment provides insight connecting the notion of a holding environment with its importance for leadership in general. Additionally, knowing about leadership in a gaming environment is crucial for practitioners and educators that will design TRPGs as methods for leadership development. This study will inform the design and creation of TRPG experiences in which leadership development is an intentional focus.

Summary

This study embarks on a quest to explore gaming environments and their potential for creative leadership development. TRPGs are unique phenomena and interesting subjects for this research because of the rising popularity of games like *Dungeons & Dragons* and reports about collective creativity inherent in TRPG experiences. Developmental and group environment frameworks provide a novel way to construct an understanding about TRPGs and serve as a potential link between TRPGs and leadership development. Knowledge of theory and previous research is necessary gear for this exploration and is presented in Chapter Two Theory.

CHAPTER TWO

THEORY

Several theoretical frameworks informed this investigation of gaming environments in *Dungeons & Dragons* groups. Drawing from multiple sources is appropriate for this study in the vanguard of applied TRPGs being investigated with leadership development in mind. A conceptualization of gaming environments was created for this study and helps link theories of play, holding environments, human development, and TRPG studies. Taking contributions from multiple schools of thought helped form an interdisciplinary approach that enabled this exploratory research. Development frameworks, TRPG studies, and leadership studies were essential paradigms to consider.

Adopting developmental frameworks supports this investigation of psychological impact in TRPGs that is informed by TRPG studies and is focused on social role-play. The psychological impact of D&D has been feared historically. Therefore, it is necessary to understand historical barriers when considering how to utilize psychological impact in gaming environments. Leader-Member Exchange (LMX) is a relevant leadership topic given the importance of the DM role and LMX's association with creativity and attachment styles. Three pilot studies were conducted in preparation for this research and will be reviewed at the end of this chapter. This chapter presents relevant topics for this study's investigation of gaming environments including a call for collective leadership development, creativity, historical barriers to D&D, psychological impact in TRPGs, social role-play, the dungeon master's role, a philosophy of play, and leader-member exchange.

Leadership Development

Day (2011) explained that leadership practitioners are unsatisfied with current leadership development practice amidst a high demand for leadership development. A major issue facing leadership development is the prevailing and erroneous belief that leadership development happens mainly in leadership development programs instead of through lived experience and everyday contexts (Day, 2011). In addition, most development programs are focused on the individual as a leader, utilizing evaluation, instead of the collective processes (Day, 2011). Successfully developing leaders is helpful but cannot address leadership development more broadly in a way that encompasses collective processes. Leader development programs also depend on specific programs and do not address groups experiencing a context together. A necessary step forward for leadership development is to add the experiences of groups in context and approach leadership development more holistically.

Research on individual leader development suggests that training and development are distinct activities and that development (complex awareness) is not technically straightforward like training (skills). Development is facilitated through experience, in contrast to traditional classroom formats, by trying out new responsibilities in lived experiences (Day, 2011). Leader development programs must engage experiential and action learning processes such as those that may be possible in TRPGs rather than knowledge dissemination paradigms.

Understanding individual development is still needed, however, to begin moving towards collective leadership development. Challenges in the science of leadership development persist and include a need for incorporating developmental theory and

addressing the role of context in development (Day, Zaccaro, & Halpin, 2004). To begin to address these challenges, conceptions of leadership require shifting from a training paradigm to a development paradigm.

Using a developmental paradigm begins the process of building an understanding of leadership development in terms of collective meaning making. In contrast to training, development focuses on building individual and collective capacity to meet unforeseen challenges (Day, 2011). A developmental paradigm will similarly build from individual capacity into collective capacity for identity development, creativity, and meaning making. These are all benefits that have been reported from experiences playing tabletop role-playing games (Bowman, 2010; Cover, 2010; Daniau 2016).

Research overall is mostly about leaders with some attention to teams' adaptive capacity but does not address creative capacity (Day, 2011). Seminal development theories exist that incorporate the role of play, environment and context in both learning and development (Vygotsky, 1978; Winnicott, 1989). These ideas will need to be integrated with future research that approaches leadership development, particularly concerning a group context. Such theories also provide a framework for understanding how TRPGs are examples of environments that foster creativity and development.

Creativity

Creative approaches to leader development are rare despite being an aspect of leadership that will become progressively important to the success and survival of organizations (Mumford, Robledo, & Kimberly S. Hester, 2011). Current approaches to creativity are focused on quantifiable methods including products/achievements, problem solving, and reported behavior (Mumford et al., 2011). This is a helpful start for

understanding creativity on an individual level within organizations because it helps leaders use expertise to develop new solutions to problems (Mumford et al., 2011).

Approaches to creativity need to be expanded to include collective creativity as a developmental process. A major issue with the individual approach is that creative individuals are not ideal employees (Mumford 2000). After all, organizations are systems which act to maintain themselves, resist change, and suppress or even oppress creativity (Freire, 2003; Heifetz & Linsky 2002). Viewing creativity as an individual trait pits an individual against their organizational context, which results in individual adaptation rather than transformation. For this reason, Freire (2003) called for systemic transformation and forms of creativity beyond just the adaptation of individuals. Adaptive leadership involves the transformation of existing hierarchies as embedded contexts. Collective creativity, in addition to individual creativity, is needed to transform systems and successfully change the context in which we are embedded. TRPGs are systems that allow individual and group agency over the system itself while also promoting collective creativity. As such, they hold potential for leadership development efforts that seek to address similar processes in organizations.

Some conceptions of creative work acknowledge that it is often social and relies on collegial relationships (Abra, 1994). This understanding of creativity views creativity as results produced by individuals in collaboration instead of viewing creativity as a collective experience or developmental process. Viewing creativity as a developmental process incorporates conceptions of play as the process which fosters creativity and development as outlined by Vygotsky (1978) and Winnicott (1989), and expanded later. Studying creative context is also important because the environment shapes the

willingness of people to engage in creative problem solving (Kasof, 1995). Additionally, environments need to be studied because they shape creative development. Future leadership research directions have been proposed to examine how leaders' behaviors shape climate perceptions (Mumford et al., 2011). Similarly, game masters have long been regarded as key influencers in gaming experiences because the rules give the game master tremendous power and responsibility (Toles-Patkin, 1986). TRPGs have been regarded as creative environments but have also been feared.

Historical Barriers and Stigma

Dungeons and Dragons (D&D), initially published in 1974, is the first formalized game of this type and is perhaps the most widely recognized name. The game is experiencing an unprecedented surge in popularity (Weiss, 2018). Before its current popularity and name recognition came significant misunderstanding and a conflicted history. D&D was the subject of a moral panic in the 1980's. It was falsely blamed for various tragedies and taboos throughout its first few decades of existence. This included association with suicide, homicide, and occult worship (Laycock, 2015).

The scholarly research done in response to moral panic about the game, along with a logical examination of the cases in question, clearly exonerated the game, although public opinion remained fearful and uninformed (Cardwell, 1994; Carter & Lester, 1998). For instance, the assumed links between D&D and criminal behavior were absent when investigating personality and criminal behavior (Abyeta & Forest, 1991). Other personality reports showed mundane profiles for gamers, far from the abnormality assumed by stereotypes of gamers presented in media (Rosenthal, Soper, Folse, & Whipple, 1998; Simon, 1987; Simon, 1998). DeRenard and Kline (1990) found no

negative effects of role-playing; the level of isolation associated with highly committed players matched that of anyone committed to a hobby or recreational activity. Similar findings have been reported by Douse and McManus (1993). These studies serve as evidence to the contrary of the fantastical concerns of public opinion in the 1980's but also raise questions about selection bias given the impetus for that research was to combat a moral panic. It is possible that researchers chose people they knew would be "typical" and would not raise emotional or social concerns.

Much of the rhetoric attacking D&D involved religious overtones. The fantasized act of summoning demons (so they could be defeated nonetheless) from imagination (and fantasizing other antisocial acts) was enough to scare religious individuals no matter how fictional in nature (Elshof, 1981; Holmes, 1980, Shuster, 1985). D&D was unfairly reported to encourage supposedly deplorable behaviors including sex, violence, and spending lots of money (Elshof, 1981). Even within the academic literature, the game was sometimes referred to as not "age-appropriate" for adults by researchers lacking personal knowledge of the game's history (Ascherman, 1993). D&D was originally a combination of war games and fantasy fiction inspired by J.R.R. Tolkien (Cover, 2010; Tresca, 2011). War games are very much an adult pursuit (created and used to train for real human wars) and classic literature is a core element of culture. Geek subculture in general has been historically ostracized by mainstream culture (Fine, 1983). The lack of understanding surrounding the nature of fantasy role-playing games and the people who play them has contributed to the avoidance of selecting these phenomena as subjects for scholarly research or for application in leadership contexts. The fear of negative psychological impact from TRPGs was a misunderstood element of the moral panic.

Psychological Impact

There is a need to better understand the psychological impact of fantasy role-play. The origins of concern about D&D provided some useful lessons underneath the overall damage to public opinion. One case report detailed obsessive distraction centered around a game of D&D among psychotherapy patients. In this case, problematic personality traits were amplified with clear connections to the game and subsequently relieved upon termination of the game (Ascherman, 1993). In this same case, there was a lack of leadership and a new director in the treatment center. The absence of effective leadership may have allowed problematic gameplay to exacerbate existing issues. The therapists also lacked an understanding of the game and may have been limited by their capacity for ambivalence toward the game.

To the contrary, Blackmon (1994) reported a case of psychotherapy enabled by the patient's experience in an ongoing game of D&D. Role-playing served as a safe displacement of emotions as the patient became comfortable working with and gaining mastery with those feelings (Blackmon, 1994). The game served as a waking fantasy that gave form to a person's internal fantasies and their life. The game experience was used as a therapeutic tool to help the individual work through psychological issues, build self-efficacy, become familiar with emotions and relate emotions to the therapist (Blackmon, 1994). Role-play has been reported to reveal actual characteristics of the players which means a troubling trait could be exacerbated just as positive work could be done.

Players identify with their characters as a part of their personality, sometimes partially driven by the unconscious (Blinka & Smahel, 2007) Also, the role of facilitators (such as a Dungeon Master) is crucial. Tabletop fantasy role-playing games have the

potential for working through personal identity and unconscious influences in some contexts with qualified facilitation.

Not all fantasy role-playing game experiences are positive by default. The access to and amplification of inner personality dimensions is consistent with ethnographic findings (Bowman, 2010). The group experience also matters. The unconscious work possible in fantasy role-playing can be linked to a collective unconscious shared by a group of gamers engaging in role-play. Social conflict exists and can deter from the game experience as players experience role confusion between relationships in and out of the game (Bowman, 2013). Players can feel the effects, both positive and negative, of behavior effecting hormones released during play even after play is concluded (Leonard & Thurman, 2018). This is one example of bleed, the transfer of experience between in and out of game activities. In some cases, players appreciate intense emotional experiences involving tragedy or horror when self-selected for such an experience (Montola, 2010). In many other cases, conflict is an unwanted part of the experience. Gamers turn to facilitators (including the game master) for conflict resolution and leadership in these social situations (Bowman, 2013). Recognizing how tabletop fantasy role-playing games could successfully aid us in working through interpersonal conflict or personal emotional issues includes focusing on the heightened responsibility of the facilitator in being able to deal with issues of both personal and interpersonal psychology.

One obstacle in the consideration of fantasy role-playing games is the tendency for escapism. Critics mistakenly claimed the game of D&D was an unhealthy form of escapism as an obsessive retreat from the real world (Elshof, 1981). While it is possible to use D&D like any form of avoidance, fantasy role-playing games allow participants

freedom to explore aspects of themselves they may otherwise be unwilling to uncover (Bowman, 2010). Escapism and meaning making are not in opposition during a tabletop fantasy role-playing game as players gain agency through social immersion and shared imagination (Cover, 2010). Many cases have been reported of long term and marital relationships originating between players strongly influenced by shared experience in a fantasy role-playing game (Bowman, 2013). This exemplifies a positive transference of game experience to other life contexts. The role confusion involved in fantasy role-playing works both ways and is more complex than simply posing as an obstacle to transferring benefits from a gaming experience to other contexts.

The psychological safety and agency created in a tabletop role-playing environment has potential for avoiding challenges, similar to work avoidance. This evidence suggests a potential need for qualified facilitation to ensure productive gameplay, or at least being able to recognize any significant problems and subsequently ending the game experience. Cover (2010) provides reassurance that “a social motive that involves connecting with people to make sense of the actual world is not actually at odds with the notion of escapism” (p. 121). Further evidence is needed to integrate these findings, provide additional context, and specifically investigate the potential for facilitating learning and development in fantasy role-playing games. One aspect of TRPGs that is interesting for the prospect of learning and development lies in how TRPGs provide a unique form of social interaction.

Social Role-Play

Humans innately learn by playing, a skill we have from childhood. Learning through role-playing has been widely observed in children as they shift roles

unconsciously. Evidence is documented of the benefit for using tabletop fantasy role-playing games as an activity to perform social work with children (Zayas & Lewis, 1986). Children naturally imitate social roles when they play (in and out of TRPGs) to learn about the social world (Vygotsky, 1978). As adults, we take up multiple roles in defining a sense of self that is not unique to role-playing games (Williams et al, 2006). In this way, people of all ages can learn in different ways through social role-playing.

One key element of D&D experiences is the reliance on social interaction in creating the play experience. D&D games are traditionally played through social interactions around a table. The advancement of technology has allowed virtual versions (e.g. Google Hangouts, Roll20.net, Dndbeyond.com) of such games to be played though the premise remains the same. A group of people gather to role-play characters in a game in which the set of rules and objectives is moderated partly by pre-existing rules and partly by players as they play rather than solely by the premeditated computer coding in video games. Virtual TRPG interactions are not always face to face and can be considered computer mediated communication. However, it is the epistemology of the rules which is within the players' agency in TRPGs in contrast to rules being solely executed by computer programming in video games. TRPG players have agency over the rules while video games only allow player agency within the rules and choices already programmed into the game's code.

The social nature of D&D also drives the narrative of the story and increases decision making affordances within a fantasy world. Fantasy represents a genre of games that involve imaginative creation of alternate realities and narratives with themes that often utilize science fiction or settings similar to the works of J.R.R. Tolkien to visualize

content (Cover, 2010). D&D is considered a classic example of fantasy, sometimes called sword and sorcery, drawing heavily from Tolkien. The nature of the fantasy genre favors the use of imagination and employing human processes, such as small group communication, as the basis of the game experience. Tilton (2019) observed that small group processes including groupthink and nonverbal communication subsidized or even replaced decision-making logic in social deception games. Similarly, in D&D, players' social interactions and dynamics constitute the primary processes which mediate the creation and management of an imaginary game environment.

Role-playing, using imagination to shift roles, is a major component of social interaction and communication in role-playing games, including D&D (Bowman, 2010). When children play, they imitate actions that are beyond their own capabilities (Vygotsky, 1978). Adults are capable of more advanced forms of play (Winnocott, 1989). In playing, individuals can imagine themselves to embody a role both similar and different from roles they have in other areas of life and will obey the constructed rules of the imagined role (Vygotsky, 1978). The continuum from reality to fantasy is a powerfully salient aspect of games (Pavlas et al., 2009). The rules of imagined roles in TRPGs are subject to the agency of the players and the facilitator, making them suitable for crafting meaningful experiences and coinciding imagined roles with reality (Vygotsky, 1978; Winnocott, 1989). The use of imagination and role-playing in TRPGs is partly a deliberate act of creating role-play situations which involves discovering unforeseen aspects of self through improvisation.

Improvisational play in the context of tabletop fantasy role-playing games is unique as it is non-instrumental and can be fully immersive (Toles-Patkin, 1986).

Experiences in role-playing games can allow players to experientially further their understanding of complex roles and relationships with overlapping boundaries on the continuum from fantasy to reality. While in a game experience, players develop shared concrete narrative fantasies (Blinka & Smahel, 2007). These concrete narratives can be utilized as objects for reflection on gaming experiences that are real for players.

Role-playing and creativity in TRPG experiences can be linked to development. Development can be thought of as a creative act in which a new understanding of self and reality is formed through experimenting with relatedness to others in a state of play (Winnicott, 1989). In this view, adults engage in advanced forms of play in order to exercise creativity and develop their understanding of reality. Winnicott's (1989) model situates the therapist as a guide in facilitating this process with an individual similar to Vygotsky's (1978) notion of a more experienced other that guides development through the *zone of proximal development*. The zone of proximal development (things I can do with help) is thought of as the area between a person's comfort zone (things I can do with confidence) and far out of reach (things I can't do). These frameworks, when applied to TRPGs, could be used to facilitate TRPG interactions that are forms of role-play intersecting with an individual's zone of proximal development and can foster learning, creative capacity, and development. Such an application would rely heavily on dungeon masters as facilitators of the game.

Dungeon Masters as Guides

Dungeon masters are directly involved in the variations between individuals' experiences through their use of authority in their leadership role. Arguably, the transformative potential of TRPGs may be associated with leadership exercised by the

dungeon master in the use of authority and leader-member relationships.

Correspondingly, design elements such as using visual aids, balancing attention among players, keeping the game simple and fun, celebrating success, encouraging role-play, checking for consent, transparency, and obfuscation may all play a role in how or to what extent gaming groups engage in developmental activities. In addition to game design and specific gaming strategies, the influence of authority adds to the importance of the DM's role.

Authority and Facilitation

A critical approach is necessary in understanding and utilizing D&D as a system of social interaction for human development. Knowing the importance of the DM role in facilitating these experiences carries a responsibility like that of a teacher or therapist to understand the impact one can have on others. In fact, best practices of the DM role have been applied as advice for teaching in a traditional classroom (Garcia, 2016). DMs have a lot of authority in D&D which makes an awareness of power, racism, and misogyny in the context of D&D particularly important.

Like all social systems, the history and context of D&D's creation implicitly influences its evolution. The rules systems and various editions of D&D have evolved but still carry the patriarchal and racist historical context of their origins. The original creators and consumers of D&D were predominately white men in the 1970s United States and the influence of that perspective is evident in game texts (Garcia, 2017). The game they were playing was directly inspired by tropes, like orcs, from Tolkien that were literal and intentional representations of racist stereotypes (Hodes, 2019). Role-playing games also involve complex fantasy structures that provide players with means to gratify

desire based on male power fantasies (Nephew, 2006). Early editions of D&D featured systemic gender inequality in the form of both sexist imagery and rules that limited the strength statistics of female characters (Garcia 2017). Trammell (2014) explained how the homogenous culture of D&D players in the 1970's was overtly misogynist and prioritized the accuracy of simulation over the ethics of simulation while rationalizing rape culture in games. This historical context is important to know because elements may linger in gamer sub-cultures amidst increasingly diverse players joining the hobby.

The size and demographics of the D&D community are rapidly changing but still include a subset of homogenous white male gamers with problematic mindsets. Additionally, the historical and cultural influences that created D&D are still reflected throughout fantasy gaming culture. Recent editions of the game have diversified images (race, sex, and body type) and incorporated inclusive language to make the game system more representative, but racist tropes and power structures still exist in the game's rules and source material (Garcia, 2017; Hodes, 2019). With the spreading popularity and diversification of representation in TRPGs, role-playing communities need to engage in intersectional design, understand oppression in play, and inclusively support people of color entering what are often predominately white spaces (Kemper, 2018). These considerations are particularly important for DMs because of the powerful impact authority can have in both perpetuating and deconstructing problematic systems.

Formal authority in D&D is mainly manifest in the role of the dungeon master, who is given a great deal of power and control over the players, as the determiner of the setting, rules application, and outcomes. This role was initially an embodiment of patriarchy drawn from the male creator's use of his children as players to test and create

the game. While problematic authoritarian language describing the DM role has given way to more inclusive facilitation advice, the systemic power of the DM role remains inherent in the rules and carries with it a responsibility to promote distributed leadership and healthy group dynamics. For this reason, advice for facilitating and debriefing group dynamics in game settings is helpful for creating a constructive learning environment (Hermann, 2015).

The authority of the dungeon master in D&D games cannot be denied but it is also essential in creating a gaming environment and successfully guiding collective creativity and growth. This makes the DM role suitable for integration with teaching and leadership development roles. A competent facilitator will acknowledge the authority structure inherent in D&D and be able to manage how they embody such a role to be inclusive and empower the development of a group of players. Likewise, a responsible practitioner is specially trained, licensed, and knowledgeable about their methods, including knowledge of D&D's popular context and critical awareness of D&D as a social system. Acknowledging the leadership role of the DM connects to leadership-member exchange theory.

Leader-Member Exchange

There are many leadership theories worth exploring in TRPG contexts. This study draws from Leader-Member Exchange (LMX) due to its prevalence in mainstream leadership scholarship and relevance to the findings in this study. Smriti et al. (2011) provided an overview of LMX research as a highly studied framework with continued directions for future research. LMX views leadership as a social exchange in dyads between leaders and followers. The quality of these relationships and followers'

perceptions of their relative standing with the leader influence group and organizational outcomes. LMX quality involves mutual influence, negotiability, trust, and respect (Smriti et al., 2011). Using TRPGs as a context for LMX frames individual dyadic relationships between players and the DM as a social structure for how DMs influence a TRPG group.

Pilot studies identified that balancing attention among players is one element of DM facilitation in TRPG experiences, which illustrates one of the ways LMX can manifest in TRPGs. Social comparison plays a role in shaping followers' perceptions of fairness and variability of LMX relationships within a group. Differentiation in the quality of LMX relationships influences the formation of in-out groups and has been associated with both positive and negative outcomes dependent on the overall quality of relationships and group context (Smriti et al., 2011). On a group level, LMX quality can drive group potency, lower group conflict, and enhance climate agreement (Smriti et al., 2011). Differentiation, quality, development of LMX over time, and specific group contexts are relevant areas for further exploration.

Complexity in how differentiation and LMX quality are related to group outcomes requires an examination of group context. Yu et al. (2018) found that emergent states and group processes mediated relationships between LMX differentiation and group performance using an equity-equality framework. Group solidarity was associated with making sure all members experienced high LMX quality even if there was relative differentiation (Yu et al., 2018). LMX quality also relates to how followers perceive the importance of LMX relationships. If followers viewed the LMX relationship as important, LMX quality had higher impact (Lee et al., 2019). High task interdependence

influenced employees' perceptions of fairness and how much LMX differentiation mattered for group performance (Yu et al., 2018). The group task of playing and being creative in TRPGs is highly interdependent, with the DM role viewed as highly important, so LMX quality and differentiation are worth exploring in a TRPG context.

LMX's relation to creativity is also pertinent in a TRPG context. Supervisor monitoring impacted LMX, which in turn impacted employee feedback seeking and innovation behaviors (Liao & Chun, 2016). High quality LMX has also been found to mediate the negative effect of close monitoring on employee creativity (Son et al., 2017). More interactive supervision, as opposed to top-down, resulted in better LMX (Liao & Chun, 2016). In a meta-analysis, Carnevale et al. (2017) found that LMX positively predicted voice, creativity, and innovative behavior. Additionally, personal initiative has been reported to amplify the relationship between LMX and employees' creativity (Khalili, 2018). DM monitoring in TRPGs is espoused to be highly interactive, support player initiative, and is regarded as paramount for its assumed impact on players' creative experience, all things that support these recent LMX findings and warrant investigation.

Players' relationships, theoretically including attachment style, with the DM add to an investigation of LMX in a gaming environment. Attachment styles are derived from experience with caregivers. Caregiving roles are pertinent for DMs that aspire to act like good teachers. A caregiving function of leadership is to provide followers a secure environment and balance reliance between self and others (Mayseless, 2010; Popper & Mayseless, 2007). Caregiving leadership roles are linked to LMX in that avoidant attachment was correlated with low quality LMX, reflecting the importance of trust and attachment (Fein et al., 2020). Perceptions of LMX quality and creativity were influenced

by attachment styles, mainly that insecure attachment negatively affected perception of LMX quality and led to lower creative output (Kirrane et al., 2019). This underscores the importance of the DM's authority and caregiving roles in fostering gaming environments that enable creativity and high quality LMX for all individuals. In addition to the influence of the leader, group dynamics are relevant for examining gaming environments.

Group Dynamics and Formation

Tuckman's model of group formation and the BART system of group analysis informed part of the analysis of group dynamics in this study. Tuckman (1965) reviewed studies of groups to put forward a framework for understanding how groups develop, including their formation. Groups exhibited common activities and functions including orientation, testing group norms, establishing boundaries, and depending on authority during formation. Groups progressed on two development sequences associated with task and interpersonal issues respectively. Eventually, group cohesion was experienced, and roles were adopted (Tuckman, 1965). This provides an understanding of patterns that can be observed in groups over time and are not limited to a specific context.

The BART system of group analysis provides 4 main elements of a group including boundary, authority, role, and task (Green & Molenkamp, 2015). These elements include unconscious aspects of groups that can be interpreted from unarticulated events happening in a group. Boundaries can involve tasks, territory, resources, roles, and responsibilities. They can be rigid, fluid, permeable, or span regions rather than signal discrete limits. Authority is defined as the right to do work and assumes responsibility and accountability (Green & Molenkamp, 2015). Authority can be formal or personal based on where it is derived and how it is enacted by a person. Roles exist and change in

groups as both formal and informal patterns of being in the group. Formal roles are often defined by authority and related to tasks. Informal roles fill unaddressed functions in groups. Groups have work tasks and unconsciously have a survival task that coexists in their mind (Green & Molenkamp, 2005). Paying attention to these elements of a group helped interpret what was going on in the group in this study.

TRPGs are played by groups of people and are therefore subject to the formation and psychosocial processes common in groups. Playing a TRPG provided a unique context in which to analyze these elements. Understanding the contributions of theoretical frameworks presented so far frames an investigation of gaming environments.

Gaming Environment

The use of imagination in TRPG situations is a deliberate act of creating play situations. In games, an individual can create an imaginary environment governed by rules (Vygotsky, 1978). Games serve as systems of play in which creativity and development can be embedded. Players have concrete experiences in games that represent mental models and can be the subject of reflection (Wasserman & Banks, 2017). Additionally, the use of critical reflection in debriefing helps adults engage in transformational learning with TRPG experiences and transfer learning from the game to other life situations (Bowman, 2013; Daniau, 2016). Developmental environment and TRPG learning ideas inform research that approaches TRPGs as a particular context for development.

Several concepts exist in role-play studies that are related to theories about developmental environments. Bowman and Lieberoth (2018) provided an explanation of key terms used to discuss role-play experiences, which are summarized here. *Bleed*,

players experiencing elements of their real-life spilling over into their character and vice versa, is a key element of role-playing experiences. When engaging in a role-playing game, players adopt a set of social rules for the game in addition to existing social rules which together constitute a *social contract*. Players separate themselves from their characters using the concept of *alibi*, in which actions taken by the character can be considered as not being taken by the player. Alibi exists in relation to bleed in that stronger alibi means less bleed and vice versa. While bleed is largely unconscious, *steering* is described by Montola et al., (2015) as players consciously choosing to alter the course of a character towards or away from emotionally impacting factors with motivations that are not always diegetic (in-game).

Immersion, the feeling of being in the game, narrative, character, activity, etcetera, is a key element of role-playing games that has been associated with a process in which players' emotions, relationships, and physical states effect the learning potential of role-playing experiences (Bowman, 2010, 2013). This view of immersion parallels theories about play and environment from Winnicott (1960, 1989) and Vygotsky (1978) in that imagination is used to foster development. The magic circle is a different philosophy about play.

Re-casting the Magic Circle

The magic circle (Huizinga, 1955) is a concept often discussed and critiqued in game studies. The idea of the magic circle is that there is an imaginary play space in which individuals play, but the contents of play are considered to be outside reality. What the magic circle doesn't consider is that there is not a clear and static boundary between play and reality. The boundaries between reality and play should be considered more like

porous regions that overlap. Given the role of play in development, reality is present in some play experiences. The transfer of concepts from reality into the game and the transfer of game concepts to other real situations is central to play and learning experiences. Gamers intuitively know the difference between in-game and out-of-game realities although they do not agree on the specifics about where those boundary regions begin and end (Consalvo, 2009). This suggests that players individually compartmentalize their conscious experience. A shift in perspective useful for approaching development in games places group context as a priority in understanding game environments as articulated by Consalvo (2009):

“Taking another view, formalist constructions of games (Juul, 2005) either deny that context or place its importance as secondary to the structural elements of games, in seeking to understand them. What if, rather than relying on structuralist definitions of what is a game, we view a game as a contextual, dynamic activity, which players must engage with for meaning to be made.” (p. 411)

More investigation is needed to gain a deeper understanding about how these imaginary spaces are shared between players and how the boundaries around play and reality are navigated to facilitate learning and development.

I propose a new way of viewing TRPG environments that integrates the conceptions of play and developmental environments discussed earlier with a group level of analysis. Figure 1 shows my conceptualization of gaming environments around TRPGs that is informed by TRPG literature, experience, and pilot studies (Lasley, 2017; 2018a;

2018b). The current study informs this new model and incorporates a group level of analysis.

Individual. A role-player has their own conceptions about themselves, their character, and how bleed occurs between the two. These are objects in the mind of a person that provide alibi and material for play across frames in the magic circle.

Interpersonal. When two individuals role-play together, more complex dynamics and relatedness become available. Interpersonal dynamics add perceptions of each other's mental objects to our own mental objects of self, character, and bleed. Relatedness provides opportunities for development by elucidating the complex space between individuals when my own understanding of self/character/bleed is confirmed or contradicted by another person's interaction. Both conscious and unconscious elements of personality can become apparent through relatedness that would not have been apparent to an individual alone. These dynamics become even more complex in groups of 3 or more.

Group context. Social dynamics and underlying influences of group psychology are always present. One aspect of group psychology is called the *container*, or psychological environment of a group that contains the unconscious emotional experience of a group (Bion, 1959). The container acts as a bowl in which interpersonal dynamics and relatedness occur. *Holding* is the notion that the container provides a good enough balance between comfort and frustration for individuals to experiment with new understandings of self, character, and bleed (Winnocott, 1965). Figure 1 presents this model as viewing the bowl from the top down and seeing the frames and processes that form the gaming environment within the group container.

Figure 1. Theoretical Model of a Gaming Environment

The game master plays a critical authority caregiving role in shaping a learning environment within the group context. Learning (about rules and norms) facilitates the players' abilities to engage in the gaming environment by navigating the boundary regions between the outside context, the learning environment, and the imaginary world in a gaming experience. Learning also facilitates the players' abilities to transfer concepts from the game to other contexts. Interactions between all players (including and especially with the game master) contribute to the gaming environment through role-play, group formation, and dynamics. Together, the interactions of all members of the group can foster an immersive, safe experience in which the group can engage with a shared imagination and express collective creativity. Individual development can progress over time as players engage in creative play within the game, make meaning of their play experience, and transform their understanding of self and reality both in and out of the game. Additionally, collective (group level) creativity and development may progress as the group forms, with the generation of a shared imagination, immersion, and shared mental models that include playful creative norms. This model was created originally from pilot studies and developed through the current study.

Pilot Studies

Three pilot studies contributed to the design of this research by (1) establishing *Critical Role* as a model for transformative role-playing, (2) providing insight into the type of meaning that people sometimes associate with *D&D*, (3) operationalizing relevant variables (group creativity, psychological safety, and DM facilitation), (4) describing types of interactions that are associated with group creativity, and (5) refining themes (see table 1). The culmination of conducting these pilot studies was instrumental in

producing the initial theory of learning and development in tabletop role-playing games. The pilot studies are briefly described here with their contributions to this research.

Lasley (2017) investigated the claims of people who reported personal transformation that they credited to their experience watching *Critical Role*, an actual play *D&D* show that is live-streamed weekly on Twitch.tv and YouTube. This study employed in depth semi-structured interviews and phenomenological narrative analysis to convey the meaning of the participants' experiences. Pilot study 1 findings included a description of how participants were inspired by what they saw and felt while watching *Critical Role* to develop their own play styles, using the cast of *Critical Role* as role models. The play style and feelings that participants attempted to emulate were those which they associated with their own sense of transformation and personal development in an effort to enrich their games and foster transformative role-play experiences. While *Critical Role* is a unique form of *D&D* because it is a show, it is a form of *D&D* that is shaping how traditional games are played and who plays them.

Lasley (2018a) utilized content analysis to develop an internet survey and explore group creativity, DM facilitation, and psychological safety in *D&D 5e*. 3 multi-item scales were developed for each of the three main variables, respectively. The scales were developed using a combination of previous scales and themes from a content analysis of the *GM Tips* YouTube series produced by the person, Matthew Mercer, who is the DM for *Critical Role*. The results of the survey suggest that group formation and certain forms of DM facilitation, those specifically related to social interaction (as opposed to mechanical/story structure), may be related to group creativity and psychological safety. The scale items from the survey will inform the observation employed in the current

study by helping to describe types of facilitation, group interaction, and creativity that might be both observable and related to the psychological group environment.

Lasley (2018b) explored learning environments in *D&D* by conducting semi-structured interviews with players and DMs of different groups. The findings from the other pilot studies informed the interview design and initial themes used to analyze the interviews in Lasley (2018b). Findings provided context and description of group creativity, psychological safety, and DM facilitation. Some emerging codes added to the operationalization of DM facilitation that can impact the learning environment in games of *D&D*. An additional theme, labeled as reflexivity, emerged that involved managing the boundary between in-game and out-of-game experiences, also known as bleed in the gaming community. A distinction about the reflexivity theme in this pilot study from broader understandings of bleed in role-playing is that this theme referred to conscious reflection and management of bleed. Bleed is often unconscious or unintentional in general. The additional theme of reflexivity that emerged in Lasley (2018b) was specifically related to being intentional and/or conscious about managing and reflecting on experiences of bleed as essential for having a positive gaming experience. The resulting themes together informed the observation employed in the current study by helping to describe types of facilitation, group interaction, and creativity that might be both observable and related to the psychological group environment. The contributions of pilot studies to this research are summarized in Table 1.

Table 1		
<i>Pilot Study Contributions</i>		
<u>Pilot Study</u>	<u>Purpose & Method</u>	<u>Contributions</u>
<i>Fantasy in real life: Making Meaning from Vicarious Experience with a Tabletop Role-Playing Game Webcast</i> (Lasley, 2017)	Investigated individual cases of fans who reported significant personal meaning connected to <i>Critical Role</i> , and analyzed characteristics of <i>Critical Role</i> Individual Interviews and narrative analysis	Established <i>Critical Role</i> is used as a model for transformative role-playing, Provided insight into the type of meaning that people sometimes associate with <i>D&D</i> and <i>Critical Role</i>
<i>Choose our adventure: Exploring group creativity, design, and psychological safety in Dungeons & Dragons</i> (Lasley, 2018a)	Explored relationships between game design elements and group creativity in <i>D&D 5e</i> Multi-item scale development and Survey	Operationalized variables (group creativity, psychological safety, and DM facilitation), Findings suggested DM facilitation and group formation are associated with group creativity
<i>World building: Exploring the construction of learning environments in tabletop role-playing games</i> (Lasley, 2018b)	Explored how players construct learning environments in <i>D&D 5e</i> Individual Interviews, qualitative coding and analysis	Described interactions associated with group creativity, Refined themes (group creativity, psychological safety, DM facilitation), Operationalized reflexivity, Findings suggested boundary management and group environment influence gaming experience

Previous scale and code creation

In Lasley (2018a), scales were developed as multi-item scales for group creativity, psychological safety, and DM facilitation of *D&D 5e* using the Dillman et al. (2014) method. Principal Components Analysis and correlation statistics were used to establish the reliability of the scale, justify its continued use and inform the current study. Items from the multi-item scales were used as codes in pilot study 3 given that they were tested and developed in two pilot studies (Lasley 2018a, 2018b).

The group creativity scale was partially adapted (and modified considerably to fit a gaming context) from existing scales (Lang & Lee, 2010; Li, Fu, Sun, & Yang, 2016) and partially developed from my experience. The group creativity scale included items related specifically to the creation of new ideas, mechanics, knowledge, methods, stories and additional items targeting a sense of collective membership. These items were designed to measure the group's activities bringing ideas into a shared reality and also a sense of collective membership. Group membership was included in this scale based on the operationalization of group creativity which was conceptualized on a group level in contrast to existing creativity scales that were limited to individual creativity. Factor analysis revealed two interrelated factors of group creativity divided among group related items and creativity related items (Lasley, 2018a).

Psychological safety items were partially adapted (and modified considerably to fit a gaming context) from several existing scales (Edmondson, 1999; May, Gilson, & Harter, 2004; Simonet, Narayan, & Nelson, 2015) and developed originally by the researcher after a content analysis of *GM Tips* videos on YouTube regarding creating successful TRPG environments (Lasley, 2018a). The Psychological Safety scale was

designed to measure the individual's perceptions of trust, support, and safety in the gaming group. Specific items address transparency, judgement, riskiness, feedback, and open communication. These items were used to measure the group environment from the individual's perception in Lasley (2018a) and informed the interview design in this study.

DM facilitation items were both adapted from analyzing *GM Tips* content and developed originally in the pilot studies. These items address specific elements of variable TRPG experience design relating to how the DM facilitates the game. They were based on suggested best practices for how DMs can help foster successful TRPG experiences. Specific items address in-game rewards, role-playing non-player characters, being flexible with rules, obfuscation, listening to players, the plot of the adventure, use of material aids, and balancing attention among players. Together, the items were designed to represent an overall (albeit not comprehensive) measure of the DM's facilitation as a contribution to the game's design (Lasley, 2018a).

The previous scale development project provided evidence that the items used were indeed relevant to understanding *D&D 5e* environments (Lasley, 2018a). The items developed in pilot study 2 were used as codes and expanded upon in pilot study 3. This also begged to question if additional items may also be relevant for the current study. So, emerging themes were noted in this study as described later in the analysis.

Conclusion

The theoretical frameworks and pilot studies presented here informed an initial conceptualization of gaming environments. This understanding of gaming environments was used to conduct an investigation informed by developmental environment theory and leadership studies. Leadership development currently lacks a focus on creative group

contexts that could be afforded in TRPGs. Leader-Member Exchange informed this approach through its links with creativity and the importance of leader (DM) member (player) relationships in this context. Social role-play establishes a mode for the developmental potential of TRPGs. Linking the psychological impact of TRPGs to the environment prompted this study to investigate a particular gaming environment. The methods used to conduct this investigation are described in Chapter Three Methods.

CHAPTER THREE

METHODS

This qualitative study employed content analysis, group observations, interviews and analytical memos for data collection. A group of participants was solicited to play *D&D 5e* specifically for this research. Thematic analysis was used to identify group interaction patterns by observing the group playing *D&D 5e* over the course of several sessions, reviewing recordings of sessions, and writing analytical memos. Semi-structured interviews with the participants were conducted to investigate individual perspectives of the group sessions. Interview topics included descriptions of the group of players' relationships, defining events in the group, psychological safety and factors influencing the play experience. Recordings of gaming sessions and individual interviews, as well as transcripts of individual interviews, and analytical memos were subjected to analysis. Topics of the analysis focused on the BART system of group analysis, Tuckman's model of group formation, and categories from pilot studies which included psychological safety, facilitation, and managing boundaries.

Purpose and Research Questions

The purpose of this study was to investigate gaming environments in *Dungeons & Dragons 5th Edition (D&D 5e)* and was guided by the following research questions:

1. What constitutes a gaming environment in a group playing *D&D 5e*?
 - a. What group interaction patterns are observed in a *D&D 5e* gaming environment?
2. What group dynamics were observed in a group playing *D&D 5e*?

- a. How was group formation involved with the creation and maintenance of a *D&D 5e* gaming environment?
- 3. How did leadership contribute to a gaming environment in a group playing *D&D 5e*?
 - a. What practices and strategies were identified that supported/inhibited the construction of a *D&D 5e* gaming environment?

Data Collection

An exploratory research design employed qualitative methods including content analysis, group observations, and interviews for data collection (see figure 3). Thematic analysis of recordings and analytical memos was used to interpret findings. The thematic analysis performed in this research was modeled after Hodges, Kuper, & Reeves (2008) description of empirical analysis (observing conversations and patterns of interaction to identify broad themes and functions) to identify group interaction patterns in content analysis and group observations. Frame analysis was also used to make sense of the reflexivity theme and understand multiple frames involved in participants' experiences playing as characters in an imaginary world. Two general levels of analysis were addressed: individuals as members of this specific group, and patterns of interaction exhibited in the group. The group level of analysis was prioritized by focusing on patterns of interaction.

Utilizing a quasi-experimental approach provides opportunities to study a newly forming gaming group with the intention of observing the construction of a gaming environment. Thematic analysis is appropriate for this study because it affords the group

level of analysis in an exploratory design in which the phenomena and theory being informed are still developing.

Figure 2 Data collection summary

First, content analysis consisted of observing episodes of *Critical Role* (as a role model for successful D&D group processes) on YouTube and taking detailed notes to identify interaction patterns and themes related to the research questions. Pilot study findings introduced the notion that *Critical Role* is sometimes considered a demonstration of desirable gaming interactions related to personal development (Lasley, 2017). The previous pilot studies were conducted using an individual level of analysis, however. I combined the findings from previous studies with emerging themes in this study to incorporate a group level of analysis. I analyzed episodes of *Critical Role* to establish

examples of the types of interactions (specifically those that have been associated with desirable role-playing connected to personal development) that may occur at the group level of analysis during observation of a gaming group. Possible group interaction patterns that could be observed in a TRPG include:

- Players are engaged in a parallel form of friendly teasing through the actions of their characters teasing each other
- Players take turns asking questions as their characters to try and gain insight about the alleged villains with a sense tension, fearing for their characters' safety

This content analysis informed group observation methods employed in this study by adding examples of group level interactions that can occur while playing D&D, particularly interactions that involved multiple frames of the gaming experience.

Next, a group of 4 participants was solicited to play *Dungeons & Dragons 5th edition* while being observed by the researcher over the course of five, 3-hour long meetings. The DM was referred to the researcher through a mutual friend. This was a convenience sample that helped ensure the study could be completed by providing a reference check (the mutual friend) that the DM would be able to run a game of D&D for the duration of the research. The DM and researcher only interacted as part of this research and do not have any other shared affiliation. The DM was asked to recruit players however they would normally try to get a group together to play D&D and then let the researcher know contact information for the individuals. The researcher then sent an invitation to participate in the study to each participant individually. The participants understood this research was to examine the psychological environment in a D&D group

as part of a dissertation in leadership studies. Participants signed informed consent forms at the beginning of the first meeting and were not offered incentives. All personal data, such as recordings, are stored virtually and password protected without participant names attached.

Again, themes from pilot studies, content analysis, and group interaction patterns were the focus of observation and analysis. The themes developed in the pilot studies, along with the themes that emerged during the content analysis of group interaction in episodes of *Critical Role*, informed analysis and writing analytical memos. Finally, semi structured topical interviews were conducted with study participants. Informed consent was reviewed at the beginning of each interview. Recordings of group sessions and interviews were analyzed, searching for both a priori and emerging themes. Analytical memos were used at each step of data collection to help make sense of the data and acknowledge the positionality of the researcher as the research unfolded.

Positionality

This study investigated two main topics familiar to the researcher: teaching and gaming. I am a practitioner with experience facilitating both learning and development in and out of the classroom. Much of this experience has involved game-based learning and gamification applications. My familiarity with teaching and facilitation helped in recognizing these elements when encountered in the unconventional setting of *D&D 5e*. Literature was reviewed to provide frameworks other than personal opinion regarding developmental environments and facilitation of game related learning. Content analyses from the pilot studies served as additional perspectives on D&D gaming environments.

Additionally, I am a gamer, player, and dungeon master for games of *Dungeons & Dragons 5e*. I have been a fantasy gamer since childhood but was not fully introduced to TRPGs or D&D until 2015. I began watching *Critical Role*, started playing at a local store, and within 6 months initiated a campaign with a group of friends, now 4 years running, as the DM. My experience as a gamer and dungeon master was essential for understanding and interviewing participants about their experiences playing the game due to significant in-group language and building trust. To take my background into account, interviews were conducted solely focused on the participants' experiences and descriptions. I maintained an observer role with no interaction (as little as possible as an observer sitting in the same room) with the participants during the group observations. Themes from pilot studies, initially informed by content analyses, were used as a priori themes in this study. Emerging themes and disconfirming evidence were also noted in an effort to ensure trustworthiness of the findings. The individual interviews followed the group observations and served as an unconventional form of triangulation, to confirm and disconfirm the researcher's observations by incorporating participant perspectives. The interviews incorporated individual experiences that may not have been observable or verbalized in the group.

Content Analysis

Numerous live-play *D&D* podcasts and internet video streaming sites have emerged in recent years. *Critical Role* is one of the best-known *D&D* streams and was the subject of pilot study 1 (Lasley, 2017) because of its popularity and role in shaping the current historical moment for *D&D*. *Critical Role* published its first live-recorded episode in March 2015, the 100th episode aired in June of 2017, and a successful

Kickstarter campaign in March 2019 raised over \$6 million in two days (and almost \$11 million total). The success of *Critical Role* (and findings in pilot study 1) indicates it is successful as an espoused example of playing *D&D* for many players. Each episode is around four hours in length and is recorded in a live web broadcast on a weekly basis on [Twitch.tv/criticalrole](https://www.twitch.tv/criticalrole).

The cast is comprised of a group of friends who have careers as voice actors outside of *Critical Role*. Tens of thousands of viewers watch the stream live each week and the episodes, which are later published on YouTube, have hundreds of thousands of views each. See figure 2 for a screenshot of the show.

Figure 3: Screenshot of *Critical Role*

Fans of Critical Role call themselves “Critters.” Throughout the rise of the show’s popularity, numerous reports surfaced of people feeling inspired by their relationships with the show and experiencing transformation in their games and other areas of life, including work, relationships, and personal well-being (Lasley, 2017). These reports were investigated and supported by findings in pilot study 1 (Lasley, 2017). The findings of pilot study 1 helped me understand some individual cases in which *Critical Role* served

as a catalyst for growth and also as a role model for what can be considered successful TRPG gameplay.

In this study, the first 3 episodes of *Critical Role* were analyzed using thematic analysis to identify group interaction patterns (London & Sessa, 2007) as well as identifying the themes developed in pilot studies 2 and 3 (Lasley 2018a, 2018b) while also generating emergent themes. I watched the episodes and followed along with text transcripts of the episodes while making notes about interaction patterns and wrote analytical memos. London & Sessa (2007) describe examples of group interaction patterns that can be related to learning:

- A facilitator taught the members how to brainstorm ideas, and the group practiced and now routinely uses this process when an issue arises that requires generating fresh ideas.
- Members frequently share their excitement about new information and knowledge they acquire and educate each other.
- One or two members of the group interrupt each other continuously, sometimes making statements that are unrelated to the main topic of conversation. These particular members seem impatient, self-absorbed, or merely insensitive to the reactions of others. Their interruptions become disruptions. The leader has trouble maintaining control. This pattern occurs especially when the group is under pressure to meet a deadline. Members repeat statements and revisit issues that have already been discussed.

- The group seems orderly and members are friendly, but when an unexpected, negative event occurs (e.g., a sudden cut in resources), the meetings become chaotic. Everyone speaks at once, people express old points of view (“I told you we shouldn’t have spent money on thus and such” or “Let’s cut program x; this has never worked anyway”).
(p.354).

Analyzing the patterns of how the group members interacted revealed themes about the group and gaming environment. The examples provided above describe the types of notes that have been made about interaction patterns observed in work groups. Using this example, I made notes about interaction patterns observed in a gaming environment and related to gaming. The content analysis served as an initial source of data and the group interaction patterns that were identified helped prepare for group observation by providing examples of gaming specific interaction patterns.

Group Observation Details

A dungeon master was solicited through a mutual friend. I chose a dungeon master that at least one person I know has spoken highly of their ability as a DM and that I had no personal connection with other than a mutual friend. Having a competent DM was essential given the paramount role of the DM in determining the success or failure of *D&D* games. This selection method was chosen mainly for convenience and to find a DM that is not familiar with this research prior to participating. A group of players that were not currently playing a TRPG together was solicited with the help of the DM. This selection process was documented to record previous relationships of the participants as well as factors prioritized by the DM in creating the group composition, such as

knowledge of *D&D* or desired play styles. All participants were required to sign IRB approved informed consent forms prior to agreeing to participate. 3 players participated in this study in addition to the DM. Some participants had substantial experience playing *D&D* and knowledge of the game while one was relatively new with little previous experience. Participants participated in 5 group meetings spread over the course of 2 months and then interviewed individually with the researcher within 2 weeks of the last group meeting.

The researcher secured a classroom location for the game sessions and the DM coordinated scheduling with the group. Using a classroom allowed the research to be conducted in a consistent way that was conducive to observation and recording by leaving less logistics up to chance. The DM was afforded agency to manage the group in their own style, which was a subject of observation and analysis. The researcher set up some snacks, tables, chairs, a video camera on a tripod, started the video recording and sat on the edge of the room with a notepad taking notes without speaking to the players during the session. Individual communication that happened outside the group gaming setting was excluded from primary analysis but was referenced during interviews and group discussion during gaming sessions. Similarly, strategies employed by the DM outside of the group setting were addressed in the individual interview.

Notes were taken while observing the gaming session and while re-watching the recordings of the gaming sessions. Analytical memos were written after each session and re-watching each recording. Observations focused on the variables described in previous studies, themes from content analysis in this study, the BART system of group analysis, and Tuckman's model of group formation (Zachary Green & Rene Molenkamp, 2005;

Tuckman, 1965). Themes from individual interviews were used to guide analysis when re-watching group recordings.

Interview Details

Interviews were video recorded in-person using a video camera and used a topical guide (Appendix A) format targeting the following topics: participant background, participant's experience with *D&D 5e*, descriptions of the group of players, defining events in the game, a survey of psychological safety items, and factors influencing the play experience. Interview guides were initially developed from the protocols used in pilot study 3 (Lasley, 2018b). Interview guides were further informed by the analysis of the group observations to include specific clarifying topics in the interview such as character death and personal relationships. For example, a critical moment that occurred in the game, a character dying, was referenced in the interviews to gather different perspectives of specific impactful or memorable interactions. Interviews were between 60-120 minutes in length. The interview recordings were transcribed automatically by A.I. as closed captions for the video recording. Transcripts were reviewed thoroughly and corrected to check for accuracy of the A.I. captioning.

Thematic analysis

Recordings of gaming sessions, notes from gaming observations, transcripts of individual interviews, and analytical memos were subjected to thematic analysis. Existing themes from pilot studies were noted, and emerging themes were created and noted throughout the analysis by writing analytical memos after each group meeting, interview, and re-watching each recording. Two of the initial themes for psychological safety and DM facilitation were utilized and expanded significantly (Lasley, 2018a). An additional

category from pilot study 3 was used as a main focus for analysis. This theme was about managing the boundaries between in-game and out-of-game elements such as conflict, personal relationships, and emotional bleed (Lasley, 2018b). The bleed theme led to a substantial focus on frame switching and merging as an emerging theme. Noting group interaction patterns in combination with frame merging, led to a focus on group dynamics using the BART system of analysis and Tuckman's model of group formation as important frameworks added in the analysis of recordings and analytical memos. Personal relationships with the DM emerged as an important theme in the individual interviews and was continually developed in further analysis of group recordings and analytical memos. This led to the use of leader-member exchange theory as a framework for understanding leadership in the gaming environment.

Once notes were complete for each phase (group session or interview), I reviewed the interview transcripts, group and interview recordings, observation notes and analytical memos. Quotes that represent themes were compiled with the goal of understanding aspects of the gaming environment and possible relationships between variables. Table 2 and Table 3 outline the data collection and analysis processes.

Table 2				
<i>Phases of Data Collection</i>				
Data Collection				
<u>Chronology</u>	<u>Data</u>	<u>Theory/Framework</u>	<u>Method</u>	<u>Findings</u>
Phase 1: June-July 2019	Watch episodes of Critical Role	Group Interaction Patterns, Frame Analysis	Took notes, Wrote analytical memos	Basic interaction pattern, Failure response pattern, Frame merging
Phase 2: July-August 2019	Observe and record a group playing D&D	Group interaction patterns, Frame analysis, Content analysis findings	Took notes, Wrote analytical memos	Critical Incidents, Authority of DM, Cohesion/familiarity, Frame merging, Failure response,
Phase 3: August 2019	Interview and record individuals	Psychological safety, Pilot studies	Took notes	LMX link to psyc. safety, Gaming purpose

Table 3				
<i>Phases of Data Analysis</i>				
<u>Chronology</u>	<u>Data</u>	<u>Theory/Framework</u>	<u>Method</u>	<u>Findings</u>
Phase 4: September 2019	Analytical memos and notes from phases 1-3	Group formation BART, LMX,	Reflected on each phase and connections from all phases,	Authority/LMX linked to psyc. safety and gaming norms. Frame merging linked to gaming purpose
Phase 5a: November 2019 RQ2	Re-watched first group meeting, took notes	Group Formation BART	Wrote intentional analytical memo focused on Tuckman, then another focused on BART	Group Gaming Purpose, Dependency on DM, Testing and orientation, Formal and informal roles, boundaries

Phase 6: November 2019 RQ1	Analytical memos and notes from Content Analysis	Frame analysis, Group interaction patterns, Group gaming purpose	Wrote detailed themes from Critical Role with examples	CR Themes: framing, bleed, immersion tension, failure
Phase 5b: December 2019 RQ2	Group recordings, notes, analytical memos,	Group Formation, BART, Group Gaming Purpose, LMX	Re-watched group recordings, reviewed all memos/notes, wrote analysis with examples	Task of playing D&D parallels social processes in group formation, Identified roles of individuals
Phase 7: February 2020 RQ2	Analytical memos, Group transcripts, analysis written in Phase 5b	Group formation, Group container (Bion) Group Gaming Purpose, LMX	Wrote group observation themes	Defined gaming environment, Group Themes: Formation, Development, Authority, Intimacy, Displacement, Storytelling
Phase 8: March 2020 RQ3	Interview recordings, notes, analytical memos	Psychological safety, Gaming Environment, LMX	Re-watched interviews, Took notes, Wrote interview themes	Psychological safety in this group, Gaming environment familiarity and creative process, LMX with this DM

Delimitations

Exploratory findings are not broadly generalizable. The social interactions in the gaming experience are embedded in the participants' cultural norms and affordances. Participants are from particular backgrounds. The commonalities and differences among the participants formed the specific context that influenced the phenomena which was experienced, observed, and reported. This sample was small and is homogenously educated and from similar socioeconomic backgrounds. In many other ways, this group was diverse and held progressive attitudes that counter common stereotypes about D&D

players. This proved useful for key findings about psychological safety and inclusive play.

Observation may have influenced the actions of the participants in unknown ways and may have influenced the gaming experience given that this game was being conducted for a research purpose. Additionally, while systematic steps were being taken to search for both *a priori* and emerging themes, I was limited to my own perception and positionality as the instrument (observer) for data collection. My previous knowledge of *Dungeons and Dragons* and the previous research is necessary and enabled me to conduct this research. Without this knowledge, a researcher would be inundated with unfamiliar information and distracted from the purpose of this study. Participating in this research meant that playing was in some way motivated and influenced by the research process. For example, interviewing participants about their experience served as a form of reflection and debriefing which is regarded as a useful transfer and integration process.

The analysis of *Critical Role* posed an opportunity to investigate a unique presentation of role-playing that influenced players. However, *Critical Role* is a live-streamed show by a cast of trained performers in addition to being a group playing D&D. It is important to note that *Critical Role* is distinct from other games of D&D in this way. The importance of first-person audience is relevant in RPGs. Role-playing is performative for ones' self and other players. Most role-players are not trained actors, as in *Critical Role*, but the process of play might be similar enough with this caveat in mind. Given these methods and delimitations, exploratory findings were rich and are presented in Chapter Four Findings.

CHAPTER FOUR

FINDINGS

This study investigated gaming environments in *D&D 5e*. Findings connected notions of psychological holding, group dynamics, and leader-member exchange within a particular gaming context using content analysis, observations of a group playing *D&D 5e*, individual interviews, and analytical memos. Overall, findings indicated that the gaming environment was a psychologically layered container which depended on the use of authority in leader-member relationships and utilized framing and storytelling processes for containing emotions. Findings are organized and presented below by three research questions that together contribute to understanding the gaming environment.

1. What constituted a gaming environment in a group playing *D&D 5e*?
 - a. What group interaction patterns were observed in a *D&D 5e* gaming environment?
2. What group dynamics were observed in a group playing *D&D 5e*?
 - a. How was group formation involved with the creation and maintenance of a *D&D 5e* gaming environment?
3. How did leadership contribute to a gaming environment in a group playing *D&D 5e*?
 - a. What practices and strategies were identified that supported/inhibited the construction of a *D&D 5e* gaming environment?

Core Concepts

Before expanding on findings, it is necessary to be acquainted with the following ideas to aid in understanding the findings about gaming environments in this study.

Frames of experience: human experience is perceived in particular frames of attention and organization; there are multiple frames that make up a role-playing gaming experience (Fine, 1983).

Holding: an individual has emotional needs and a source of authority provides comfort until the individual can learn to gradually integrate difficult emotions themselves (Winnicott, 1960).

Container: a group functions as an unconscious container of emotions and returns them to individuals in a more palatable form (Bion, 1959).

Group Dynamics: a group is oriented to a group purpose; is organized around boundaries, authority, role, and task; and undergoes parallel task and interpersonal development (Bion, 1959; Tuckman, 1965; Green & Molenkamp, 2005).

Leader-Member Exchange: Leadership is exercised through individual relationships with a formal leader and is experienced relative to other followers' relationships with that leader (Smriti et al., 2011).

Gaming Environment Definition

In a gaming environment, the DM uses authority to provide holding for individuals in leader-member relationships, and by adjudicating game mechanics to provide a balance of challenge and soothing for the players' experience. As a group led by the DM, each person contributes to a group container using a combination of narrative plot development and game rules systems to contain stress and make palatable meaning of emotions. Displacement and immersion into the game are essential balances in which players can merge and switch between frames of experience to effectively process and

contain emotions. Meaning and value can be derived from the experience when storytelling and/or debriefing processes return contained emotions back to the players.

Merging Frames in a Gaming Environment

Findings are discussed below using multiple frames or levels of perception to analyze data (Fine, 1983; Goffman, 1974). Frame switching and conceptions about the nature of in-game vs out-of-game experience (Consalvo, 2009; Vorobyeva 2015) relate to ideas of play environments such as a magic circle (Huizinga, 1955) or imaginary situation (Vygotsky, 1978). In TRPGs, imaginary environments become collaborative forms of fictional settings in which to play (Mackay, 2001).

Gaming frames have been discussed in different ways by RPG scholars (Fine, 1983). Vorobyeva (2015) classified levels of interactions in larp (Live Action Role-Playing) which indicated that switching between in game in character and off game out of character frames was beneficial to the gaming experience. Players' experiences navigating frames when role-playing involve bleed, steering, alibi, and social contracts, concepts that help describe the non-discrete nature of role-play experiences (Bowman, 2015). "For now, we will content ourselves with saying that the act of categorizing bleed might be useful, but it is important to remember that it is just a framework imposed upon a chaotic reality." (Hugaas, 2019). These realizations about role-play phenomena are open to possibilities for transfer and learning from game experiences. Daniau (2016) discussed learning at the levels of character, player, person and human in TRPGs paired with debriefing.

While many previous conceptualizations of gaming frames dealt with a single frame at a time (in-game vs out-of-game) or refer to porous or rapidly switching between

frames, the forthcoming analysis revealed that layers not only overlapped but were sometimes merged and expressed simultaneously. In the analysis, there was often a primary frame expressed in an observation. Equally often, there was evidence of bleed, steering, and switching between multiple frames in the players' expressions. Bleed, steering, alibi, social contract, frame switching, and spillover were all noted as part of the frame merging theme in this study. The theme is named after the group level element of observations in which frames merged. Adding the group level of analysis to elements of individuals' role-play experiences required an understanding of the concept of a group-as-a-whole.

Group-as-a-Whole

Stapley (2006) provided this explanation of the group-as-a-whole which can be used to understand frame merging in a gaming environment from the group level of analysis.

“Group processes are indeed different from individual dynamics...albeit that they have their origins in the individual. The group-as-a-whole, is a level of analysis that represents processes that may be more or less than the sum of the individual members of the group...The group-as-a-whole can be conceptualized as behaving in a different manner from, but related to, the dynamics of the members. From this vantage point groups-as-a-whole have their own dynamics resulting from the interactions of group members who may be seen as interdependent...” p.163

Individuals compartmentalize conscious role-play experience while balancing bleed, steering, and alibi in relation to the mental concept of their characters. The social

contract, magic circle, and alibi provide mental models required for constructing characters that involve both objective and subjective experiences of being or having a character as an individual player. These concepts are based in the individual and influence the group.

The group-as-a-whole has some unique dynamics and so frames that are porous, overlapping, or switching for individuals can become merged into a single frame when used as a function of the group-as-a-whole. Patterns of interaction and a clear link to a function of the group are what indicated that an observation was categorized as frame merging in this analysis. Frame merging was observed in group interaction patterns as a function of the group linked to the group's purpose.

Group Gaming Purpose

A group gaming purpose emerged from a combination of content analysis, group observation, interviews, and analysis of notes and analytical memos. The purpose of the gaming group was to create and progress a game story. This manifested as building an imaginary world, developing narrative and/or completing concrete game objectives. The purpose of gaming groups observed in this study was usually twofold, accompanied by the purpose of being observed (for research in the observed group or online entertainment in *Critical Role*). Understanding the group gaming purpose to be concerned with game and/or story progression helped contextualize these findings since group interaction patterns were found to be in service of the group's gaming purpose.

Organizing Phases of Analysis

The group gaming purpose emerged after all three forms of data collection were completed and informed the later phases of analysis. Data analysis continued after, and

was therefore at least implicitly informed by, all three methods for data collection overall. More specifically however, the phases of analysis were organized around individual research questions paired with one of the methods for data collection. Analysis included reviewing notes, reviewing analytical memos written during data collection, re-watching recordings, and writing additional analytical memos focusing on the paired research question and data from the paired phase of data collection. Research question 1 was primarily informed by data collected during the content analysis. Research question 2 was primarily informed by data collected during group observations. Research question 3 was primarily informed by data collected during individual interviews. Undoubtedly, findings in each phase of analysis partially informed each other due to the analysis happening after all three methods for data collection were already completed and each phase of analysis happening in a sequence as described in Chapter Three Methods (See table 2 and table 3). Findings are presented below organized by research question with analysis prioritizing particular phases of data collection respectively.

Research Question 1

What constitutes a gaming environment in a group playing *D&D 5e*?

- a. What group interaction patterns are observed in a *D&D 5e* gaming environment?

Layered Frames in a Gaming Environment

Addressing the first research question provided insight into components of an established gaming environment that could be observed through content analysis. Mainly, how framing represents part of the psychological structure of a gaming environment. The content analysis provided observations of group interaction patterns in an established

gaming group and themes were revealed in an analysis of the group interaction patterns. These themes helped in understanding the frames of experience that constituted a psychological container in the gaming environment and how merging frames was used to navigate the group experience in both *Critical Role* and later during the group observation phase. Data collected during the content analysis was the primary subject for addressing research question 1.

Content Analysis. The first 3 episodes of *Critical Role* were analyzed using thematic analysis to identify group interaction patterns (London & Sessa, 2007) as well as identifying emergent themes. I watched and analyzed the episodes by making notes while following along with text transcripts of the episodes. This process consisted of analyzing half of an episode in one sitting; watching from the beginning until the break or starting after the break and watching until the end (the cast took a break 90-120 minutes into each 4 hour episode). An analytical memo was written after analyzing each half episode to capture initial thoughts. The notes and memos from all the episode analyses were then analyzed to organize observations into themes.

Content Analysis Themes. Overall, several intertwining factors influenced the game experience and were revealed through observing group interaction patterns in *Critical Role*. These included framing, bleed, immersion, tension, and failure. These themes are briefly outlined before showing examples of group interaction patterns that demonstrate the use of framing and reveal other themes in a gaming environment.

Framing. Framing is a theme that was created to encompass the use of multiple frames within a gaming experience, switching between frames, and merging frames. Frames were expressed as what I considered inner frames (character in-narrative,

character in-game, in-game player) and outer frames (out-of-game player, person in this group, person in society, and cultural influences). Most group interaction patterns involved some form of frame switching or merging, particularly when tension was involved. This reflexivity was accompanied by factors from other themes to assist moving the game story forward. The general pattern was to use multiple frames to get back on track and/or to deal with tension.

Bleed. Bleed is regarded within role-playing communities as the transfer of emotions between frames, usually from what is considered in-game or in-character to outside the game and vice versa. Tension, immersion, anxiety, and conflict were all felt experiences. As such, they involved bleeding of those feelings between frames. When this happened, the degree to which the emotional bleed either contributed to or inhibited the group's purpose to progress a game story determined if the bleed was treated as welcomed or expressed as discomfort by the group. Bleed was closely associated with frame merging.

Immersion. The imaginary environment was created by the players in a process often referred to as world building. This included the setting of the story in which the characters existed and in which the players played. Like many play situations, the imaginary environment had its own sets of rules. It was in the imaginary environment that the narrative existed, and the players immersed themselves while playing. Tension existed at the boundary of the imaginary environment, as defined by its rules and compared with lived reality. Certain elements of other frames (player, person, cultural) were permitted to be expressed in the imaginary environment, as components used to

build it, while others were sometimes viewed as a threat to the imaginary environment or a violation of its rules and boundaries.

Tension. Tension is a category that encompassed many forms and followed a natural flow, rising and falling with some unexpected spikes. Narrative tension, preserving the imaginary environment, performance anxiety, and general uncertainty were all forms of tension observed in the content analysis. These forms of tension are briefly described here and then explained more using examples of group interaction patterns.

Narrative tension is a theme which involves the rising tension of a story to a climax and then a resolution, which was repeated to form multiple plot arcs over the course of a campaign. The story being created by the players involved narrative tension and progression. Building narrative tension, in congruence with the rise and fall pattern of most stories, directly contributed to the group's purpose. The group itself also followed a rise and fall pattern of tension, building in higher stakes scenarios, experiencing a peak, and having periods of low stakes with little tension.

Tension involving the imaginary environment was closely related to immersion. If the imaginary environment was not sufficiently separate from other frames, then immersion was interrupted. Immersion was mostly sought out and valued for its usefulness in focusing on the narrative. However, full immersion into the imaginary environment was detrimental to the gaming purpose by disconnecting from the players' realities as authors in addition to being characters. Thus, a balance of immersion into the imaginary environment while maintaining a purposeful connection to other frames was consistent. This served the group's purpose by allowing players to inhabit characters as a

way to embody narrative development while relying on their connection to the player and cultural frames in order to exist simultaneously as authors and world builders. Tension existed in the balance of immersion and displacement in the boundary region around the imaginary environment.

Anxiety was a source of tension from performance and uncertainty. Performance anxiety typically manifested as fear of failure, judgement, or inadequacy related to the tasks of playing (doing math, knowing rules/abilities). Performance anxiety functioned to test and ensure psychological safety. Uncertainty was a general source of anxiety and was observed in the game when there were multiple options without a clear direction for the characters and/or players. Uncertainty generated by having multiple choices with different consequences provided opportunities to build narrative tension. Both performance anxiety and uncertainty were observed as forms of tension when the plot was not progressing, either because the players could not decide how to proceed or because they were unwilling to proceed and potentially fail. Uncertainty was often expressed as both characters and players, allowing anxiety to bleed between (inner) frames while performance anxiety was expressed mainly in the person and player (outer) frames.

Conflict was a source of tension that was mostly seen as detrimental but was sometimes used to build narrative tension, thereby contributing to the plot and group's purpose. Conflict in the narrative frame, between player characters or with non-player characters (NPCs), was usually used to build narrative tension. When conflict bled into other frames, it was a source of unwanted tension that detracted from the purpose of enriching the narrative. Interpersonal conflict was the most difficult for the group to

embrace and was accommodated or dismissed quickly in order to return to narrative and/or game progression.

Failure. Failure was a persistent and powerful form of tension building and release. Different kinds of failure were treated differently by the group. The group responded differently during combat than when role-playing social interactions. Some failure was embraced by the group to build narrative tension while other forms of failure contributed to unwanted tension or were not supported by group members. Patterns involving failure varied depending on the frames involved and the type of failure.

Types of failure included dice, decision, mechanical, and interpersonal failure. Dice failure occurred when a low die roll determined that the character did not succeed in a given scenario or succeeded but to a lesser degree than desired. Decision failure was when a character or player made a decision and the net rewards and consequences of that decision were revealed to be unexpectedly detrimental. Mechanical failure happened when a player was incapable of fulfilling some game task, such as math (counting up multiple dice results) or remembering rules (in)correctly. Interpersonal failure involved the social norms of the gaming group. Violating these norms was discouraged and treated as interfering with the group's purpose. The group responded to failure with particular patterns of interaction which, along with the other themes, was observed through an analysis of group interaction patterns

Group Interaction Patterns. The most common group interaction pattern involved players taking turns storytelling by building on what others had contributed, alternating between asking questions and narrating or role-playing. I refer to this as the basic interaction pattern (BIP) of a TRPG. This pattern started with either a player asking

a question and the DM narrating, or role-playing a response. If the DM initiated, the pattern was: the DM narrating the setting and asking some form of the question '*what would you like to do?*', followed by the players role-playing, or narrating a response. The basic interaction pattern was usually expressed by a player asking a question (sometimes in character, sometimes out of character, and sometimes both) followed by role-playing and then narration from the DM to progress the scene. Players alternated with the DM narrating and/or role-playing plot developments.

While two or three individuals were engaged in the basic interaction pattern, the norm was for everyone else to be listening, although there were times when a short quiet side conversation took place. This was a permissible violation of the listening norm as long as it was related to the game and not distracting from the scene. Players all took turns to be the primary character speaking. Another common interaction pattern involved the players taking turns speaking to plan out a course of action before deferring to a single character to ask the DM a question or offer the decided action, to which the DM proceeded with role-play and narration to move the scene forward. Within the basic interaction pattern, individuals utilized role-playing, narrating, and speaking in first person but the pattern of communicating between DM and players with questions and declarations was consistent.

The group utilized the basic interaction pattern combined with frame switching to fulfill the group gaming purpose. The group gaming purpose was made apparent when there was an interruption to the basic interaction pattern. The group reacted when the BIP was disrupted, to restore the typical pattern and/or use the disruption to enhance the game

story. Group reactions to diversions from the norm also highlighted boundaries around frame merging and the imaginary environment.

The following example of a group interaction illustrates bleed, the preservation of the imaginary environment, balancing immersion, and the story-based purpose. For context, Laura is a cast member role-playing a character named Vex and Travis is a cast member role-playing a character named Grog. Matt is the DM. Sam is another cast member/player. The group is role-playing in a basic interaction pattern when Travis burps silently.

LAURA (in Vex's voice): "Ugh, Grog."

[Laura waves hand to disperse the smell and grimaces]

TRAVIS (in Grog's voice): "What, it was a burp!"

[group laughs]

MATT: "Technically in character."

TRAVIS (in Grog's voice): "Much worse from the other end, I guarantee."

SAM: "Okay, so we're going to House Thunderbeards?"

In this interaction, Travis's burp is an event in the person frame that impacted Laura as a person, distracting her from playing. Laura protested and expressed her displeasure in character by using her character's voice and Travis's character's name (Grog), merging her discomfort in the player/character frames. Travis responded in character, reinforcing that the initial event (burping) was being considered both in character and in the person/player frames. The group laughter signaled that Travis' action released tension that had been generated by Laura's negative emotions bleeding into the game and distracting from the narrative. Travis' reactions redirected attention from the

burp toward the group's purpose by making it an aspect of role-playing his character. Matt confirmed the action was congruent with the characteristics of the character (Grog). Travis continued to role-play this part of Grog's personality with his next comment, completing the process of returning to the narrative after Laura's discomfort impacted the game. The final action in this pattern was Sam redirecting the focus to the main plot that had been interrupted and returning to the basic interaction pattern by asking a question.

Improv practices were enacted as a regular mechanism within the group interaction patterns observed. The above example illustrates how Travis used the *yes/and* principle to build on what Laura had interjected, and in doing so was able to redirect the interaction into the narrative frame. In the content analysis, all members were observed using improv as a way to contribute to the group's purpose and merge frames while improvising.

An example of diverging from the basic interaction pattern that illustrated some confusion about immersion balance and frame merging occurred in episode 2 as the characters were talking with a non-player character (NPC) in the city and preparing for an upcoming adventure after already using many of their abilities in previous encounters. There was confusion in this interaction about operating from both the player and character frames. However, the group maintained its purpose in both frames. This excerpt began with Matt (the DM) continuing to provide information to the players by role-playing as a NPC.

LAURA: "Can I ask a question?"

MATT (in NPC voice): "Ah, yes."

LAURA: "Not to you, to the other guy, Matt."

MATT (in normal voice): “Ah, yes.”

[group laughs]

MATT: “Yes, Laura?”

LAURA: “When we take a rest, do we get our spells back for the day?”

MATT: “Not a short rest. It has to be a long rest.”

LAURA: “Gah, All right, cool.”

TALIESIN (in Percy’s voice): “Which is why we’re gonna take a proper nap.”

LAURA: “We’re gonna take a real nap?”

TALIESIN: “I think we should go buy some potions and take a nap.”

LIAM: “I think so.”

In this example, Matt’s role-playing was interrupted by a question about rules for regaining spent abilities (spells) when characters rest. This led to a conversation in both character and player frames about preparing for the pending adventure by resting and acquiring potions. Laughter released the initial tension generated by confusion between Matt and Laura, and signaled boundaries around the imaginary environment and immersion. The conversation became more chaotic as the basic interaction pattern deteriorated. As an observer, it was difficult to be certain which statements were being made as characters, or as players, or both. After some quick clarification, the imaginary environment was restored, and the players returned to expressing the basic interaction pattern.

The players, in this instance, needed to get on the same page about rules in order to prepare their characters before moving forward. The characters needed to rest, partly because the rules said they were running out of abilities (and also logically as characters

in a story need to rest), which required the players to communicate from the player frame. While this was a distraction from immersion in the narrative, it was in service of the group gaming purpose because the characters' preparation was parallel to the players' preparation, thus the game story could not continue without attending to both frames.

Sometimes events in the person and player frame (out of game) distracted the group from the purpose. This was apparent because the distraction was assimilated into the character and narrative frames as opposed to being taken up by players out of character, as in the previous example. In the following example, unexpected tension arose within the person frame and then the players attempted to merge player, character, and narrative frames to assimilate a distraction into the story, but ultimately disrupt the narrative and the imaginary environment.

MATT: (in NPC voice) "Please, enter and close the doors behind you.

[loud thud, players and DM look startled, Orion caused the noise behind his seat intentionally]

ORION (in Tiberius's voice): "Sorry, I didn't mean to slam the door like that."

[group laughs]

MATT (in NPC voice): "A flatulent dragonborn, eh?"

[group laughs]

MATT (in NPC voice): "All right. So as you close the" [Matt laughs and shakes his head] "Tiberius."

[Orion clears throat]

In this interaction, people were startled by a loud unexpected noise in the room which distracted them from the imaginary environment. The noise was intended, by

Orion, to enhance immersion through merging the person and narrative frames by adding a sound effect. However, this did not serve the group gaming purpose because it did not add to the story and ended up detracting from the narrative, breaking immersion instead of enhancing it. The distraction became a significant interference when Matt lost his composure while trying to role-play. Matt attempted to incorporate the incident into his role-playing by joking “flatulent dragonborn, eh?” but was unsuccessful. The disruption was fully manifested as Matt was shaking his head when he said “Tiberius” as if to scold the character, and Orion the player, who caused the distraction. Other than briefly laughing to release tension and surprise, the other players returned swiftly to the basic interaction pattern and game narrative without indulging the interruption.

In this example, Orion’s attempt to enhance immersion by merging the person and narrative frames was not received well by the other players. This is in contrast to the earlier example in which the player frame was needed to move the game forward, illustrating that the group merged frames in whatever way fulfilled the group’s purpose, either by indulging a distraction from the narrative or by inoculating it and returning to the basic interaction pattern. Orion’s failed attempt to merge frames by creating a noise was not supported by the group because it did not add to a character or story component of the game. Other kinds of failure were supported, and even embraced, as contributions to the group’s purpose.

Failure Response Pattern. Another common group interaction pattern (the failure response pattern) occurred in reaction to failure, including dice, decision, and player types of failure. This pattern was enacted immediately when a result was revealed to be a failure, such as a low die roll, or consequences to a decision were declared. The

immediate reaction was a combination of disappointment, sympathy, and celebration followed quickly by accepting the result and moving forward in the game. This pattern demonstrated this group's psychological safety (embracing mistakes) by both expressing sympathy and incorporating the failure into the game story to move forward. This proved it was ok to fail and that the players still supported each other in failing. This demonstration of psychological safety served the group's purpose by using a yes/and reaction to build narrative tension or progression.

For example, the adventuring party walked into a scene in which a dwarf was getting ready to fight a bear in a fighting ring. The bear was Trinket, a pet belonging to Vex (played by Laura). Laura tried to intervene (get Trinket out of danger) tactfully and failed, leading to a series of other attempts to prevent anything bad from happening to Trinket or garnering disfavor from the local dwarves. The result was that narrative tension built throughout an improvised scene and developed a plot.

LAURA: "Oh no!"

MATT: "What did you roll?"

LIAM: "A one."

MARISHA: "Oh no!"

MATT: "Yes!"

LIAM: "First one of the series, everybody! First one!"

MATT: "As you rush and you guys are coming to the front, Balgus sees this and now you can see both eyes are open which means he's sobered up a bit, and he goes, Oh no! This bear's mine. You want to fight two of us? Oh, it'll wake you right up!"

LAURA: “Let's do it!”

[the scene continues with multiple attempts to intervene and rising narrative tension]

In this example of dice failure, Laura rolled a 1 on the die which is considered an automatic failure in her attempt to pretend that she would fight the bear in the dwarf's place. This was met with both sympathy from some players and celebration of the failure from others. Marisha exclaimed “oh, no!” while Laura was covering her face in shame. Liam was particularly excited for the failure as an aspect of the game that increased narrative tension. “First one of the series, everybody!” Matt also exclaimed “yes!” in celebration of the failure. Matt narrated the NPC response to continue fighting unconvinced by Vex's attempt to stop them. Laura quickly accepted the failure and embraced the course of events by saying “Let's do it!” while Sam was still shocked that things were unfolding in an unadvisable way. Marisha made her own attempt to alter the situation (and help Vex) by casting a fog spell and the scene continued. This illustrated the pattern of reacting to failure by incorporating initial support and disappointment combined with sympathy and celebration from others, ultimately moving forward accepting the failure in order to proceed with the game and try other actions, building narrative tension. While this scene involved a potential fight, the group was engaging in role-play to improvise the scene, rather than using the combat mechanics of the game in a turn-based fashion.

The following example shows how failure was less accepted when engaging in the turn-based rules for combat. The authority of the DM was more adversarial in combat but the DM did offer alternatives when denying the players' desired course of action. The

published rules were used to facilitate an unwanted decision. Some players voiced their opposition to the DM and others reinforced the DM's authority, expressing multiple viewpoints. This example happened while in combat. It was Marisha's turn and she wanted to use a spell called Wall of Stone to push enemies into a wall.

MATT: "So you will not be able to push them back, unfortunately. But you could lock them into an area, if that's what you wanted to do."

SAM: "*The man* telling us what we can and can't do."

[group laughs]

MATT: "It's the nature of the spell, guys."

MARISHA: "Yeah, that's a waste of time. Instead, I will, I still got a Call Lightning going. Fuck it. I'm just gonna lightning bolt some bitches."

MATT: "All right. You don't have view of any of them right now, unfortunately."

MARISHA: "Well, then I move to where I can."

MATT: "Okay."

SAM: "Yeah good. Cop attitude with the DM."

TRAVIS: "Yeah, yeah"

SAM: "The man in charge of our fates."

TALIESIN: "That always goes really well."

In this interaction, failure was not embraced by Marisha or the other players, but the authority of the DM was reinforced by players and the rules (how the spell works). This example involved both mechanical failure (not knowing the detailed rules of the spell) and decision failure (the decided action did not produce the intended results).

Neither were embraced by the players, but these obstacles did build narrative tension by making the battle more difficult.

In combat, the DM and players had competing tasks in which the DM was in direct opposition to the players' success. However, the players still accepted the DM's authority and the battle would not have been satisfying or built narrative tension if it was too easy. The DM also supported psychological safety despite this opposition, by celebrating the players' successes later when they won the battle. Combat failure was reluctantly tolerated by the players as necessary and within the DM's responsibility as the formal authority figure. In contrast to failure, successes were universally celebrated by the entire group regardless of whether they were in combat or not.

The interaction patterns and themes found analyzing *Critical Role* provided evidence of the multiple frames of social interaction, immersion in an imaginary environment, authority, and use of narrative that constituted a gaming environment while playing *D&D 5e* and showed examples of how players use tremendous flexibility in switching between and merging frames in service of a group gaming purpose. These examples of *D&D 5e* group interaction patterns established a basis for observing the formation of a gaming environment and noting group dynamics while analyzing group observations.

Research Question 2

What group dynamics were observed in a group playing *D&D 5e*?

- a. How was group formation involved with the creation and maintenance of a *D&D 5e* gaming environment?

Group Dynamics in a Gaming Environment

The second research question addressed dynamics that were observed in a gaming environment as a group formed. Data collected during group observations (notes, recordings, analytical memos) enabled an analysis of group dynamics which served as representations of various qualities of the gaming environment and informed an understanding of the gaming environment and its formation. This included analyzing how frames were expressed as the group formed, how norms developed, authority, emotional experience, and meaning making processes within the environment such as storytelling. Analysis of group observation data was the primary focus for addressing research question 2.

Group Observation. A group of participants was solicited to play *Dungeons & Dragons 5th edition* and was observed by the researcher over the course of five meetings in July and August 2019. The participants included (pseudonyms) the DM, Player 1, New Player, and Player 3. Themes from the content analysis, particularly framing, and group interaction patterns were salient while initially collecting group observation data. Notes were taken while observing and video recording group sessions, and analytical memos were written after each session. Research question 2 was primarily addressed through the analysis of group observation data (video recordings, notes, and analytical memos), although group observation analyses were linked to data collected using other methods, beginning with content analysis findings.

The themes, frames, and interaction patterns observed in the content analysis were also observed throughout the group observations. The initial observations of group sessions were conducted using the initial content analysis findings as a foundation.

Understanding the basic interaction pattern (BIP), frame merging, and group gaming purpose was necessary in order to analyze group dynamics and group formation in later phases of analysis.

The group observation data is closely linked with the individual interview data because both methods involved the same participants and focused on their experience together. After the final group meeting, individual interviews were conducted in person and video recorded. The initial observations of the group sessions informed the interview design by identifying critical incidents to discuss with participants, for example. Then likewise, an initial analysis of the interviews informed the continued analysis of video recordings of the group sessions. The interviews confirmed psychological safety was experienced by participants and indicated the importance of their relationships with the DM. This initial data about psychological safety and authority relationships gathered from the interviews helped inform the forthcoming analysis of group session video recordings, notes, and analytical memos.

Video recordings of group sessions were re-watched and further analyzed with an added technique in this later phase: utilizing theoretical frames to write intentionally focused analytical memos. Tuckman's theory of group development and the BART system of group analysis informed the writing of analytical memos focusing on each of those theoretical frames as a step in the analysis of group observation data (Tuckman, 1965; Green & Molenkamp, 2005). Additional analytical memos were written to help make sense of the data as the research continued. Overall, analysis conducted while re-watching group recordings, analyzing notes, and writing analytical memos revealed themes about this gaming environment. Findings about this gaming environment and its

formation are organized below into themes including formation, authority, development, familiarity, framing, displacement, and storytelling.

Formation of parallel environments and norms. Logically, the group observed in this study exhibited aspects of the forming stage of group development beginning with their first meeting (Tuckman, 1965). Group formation happened through parallel processes of creating a shared imaginary environment, establishing game norms, and forming as a social group. Elements of forming that were observed included testing norms, dependence on authority, and orientation. Formation and testing norms began with conversations about the fictional setting, creating characters, and making connections between character backstories. Discussing the fictional setting was an initial step in forming the imaginary environment.

During the first meeting, the imaginary environment was originated by having a conversation between the DM and players in which the DM would describe an aspect of the setting he had imagined and then players would ask questions to further clarify and establish a common understanding about the fictional setting. Some questions were answered by the DM based on his predetermined understanding of the fictional setting and others were left up for discussion by the group to continue creating aspects of the imaginary environment together. Below is how the DM introduced the main idea for the setting as a foundation for the imaginary environment.

The basis of the game, I'm thinking, is going to be set in a place called Hapt the city of the bull and Hapt is basically a city that is built on the back of a giant bronze automata of an auroch so it is this sort of wandering nomadic city on a giant ancient cow... [continued describing the city until

the New Player nonverbally signaled they had a question]...do you have a question?

The players asked some questions that influenced the overall plot which ultimately continued throughout the gaming sessions. The DM sought this kind of input by having players answer questions about the setting. For example, the existence of other mechanical cities was discussed and eventually became part of the overall story and quest to unite two cities.

New Player: "Will we have to worry about other aurochs?"

Player 1: "Could we battle another city?"

[All players repeat "battle another city" in unison with laughter]

New Player: "I mean, I just saw *Mortal Engines*, city battles."

DM: "That's a good question, are there?"

New Player: "I don't know."

DM: "I don't know either so I'm happy to hear what the three of you think."

There were several times when it became apparent that players were not on the same page with how they were visualizing the setting. This initiated a process of negotiating toward a shared imagination. Negotiating a shared imagination was parallel to the group formation process. The group learned to get on the same page about the shared imagination, which was parallel to getting on the same page about the group mindset. Negotiating a shared imagination took more discussion and happened more often in the earlier group meetings. The following interaction happened in the second meeting.

Player 1: "Are we inside or are we?"

DM: "I thought you were inside."

New player: "I thought we were inside."

Player 1: "I thought we were inside."

DM: "It was my understanding that you were inside."

New player: "There is a ceiling."

Player 3: "I thought we were outside."

[Player 1 and New Player laugh]

DM: "Yeah, I thought that you were going toward the ziggurat and then you threw, like at the start of the fight, was you took a stone and you threw it into the ziggurat."

Player 3: "Right."

DM: "And it was inside there that the toad like ate it."

Player 3: "Yeah and the toads came out to meet us."

[All talking at once]

DM: "I guess the rest of us were operating on the assumption that, at that point it was like, o, too late."

New Player: "Maybe you were on the threshold and some of us were actually inside."

DM: "Your question about the doorway makes a lot more sense now."

[Everyone laughs]

Player 3: "Ok, so, [Player 3's character] realizes that he is inside, walks outside for a little bit to look at that statue on top."

As the group developed, these instances were less frequent and resolved more quickly. A later example involved a break in shared imagination during the final session when the adventuring party was investigating a strange gas while inside a magic force field.

Player 3: “Ok, so it is flammable?”

DM: “So, is what you did then drop the ward a moment and then raise the ward a moment so that it wouldn’t all pour in.”

Player 3: “I’m imagining there’s just this little hole allowing it to seep through.”

Player 1: “O, I was imagining a much larger.”

Player 3: “I opened up like a peep hole.”

DM: “I was imagining the face of an octagon almost.”

Player 3: “O yeah but small.”

DM: “Yes very small.”

Having a shared imagination was important for the game and for creating the gaming environment. Participants facilitated the process of creating an imaginary environment in parallel with creating a group environment. The primary method for creating these parallel environments was through affirmation. Individuals expressed excitement for parts of the setting or personal play styles and preferences as a form of positive reinforcement for aspects of the gaming environment that were of interest to them and met their needs. This process continued throughout the group sessions. For example, Player 3 expressed appreciation when clues and lore were revealed. “I’ve got

some good inklings I guess now. I know more than I did at the beginning of this session which is nice.”

Some gaming norms and applications of the rules were discussed, and some were implicit. One gaming norm this group adopted was working with each other to engage in collaborative storytelling. Participants checked to see what others wanted and to coordinate character roles that didn’t conflict with each other, such as making sure not everyone was a magic user, and ensuring someone had healing abilities. Once characters were created, the group discussed how character motivations and backstories could be connected. The DM enforced an expectation that there was some connection between all the characters in order to facilitate a cohesive adventuring party and to work towards a plot for the game. These expectations were accepted by the players as if collaborative storytelling was a predetermined part of gaming subculture to which they all agreed. The DM introduced this at the start of the first meeting, which is referred to as session zero in gaming terms.

Perfect all right folks so this is session zero so we're going to talk about the setting we're gonna be playing in, preferences for how you might like to see things go and then we're gonna make characters together and make all your characters interconnected so that we can be ready to actually play a proper game next time we meet.

This assumption was used by Player 1 later when he introduced his idea for a character. Player 1 described his character’s attributes and motivations and then said, “As far as what the other two are doing, we can build together from

there?” The DM responded to reinforce the expectation that characters were connected and could be used in storytelling.

I think two things that are important are: how are you all connected to each other. I think things work best if we assume everyone's known each other for like six months. Like, you've had some sort of working relationship or like a friendship with these people for a minute so that you're not just like well why would I do anything with you? ... [and] like some sort of motivation to keep moving I guess like with an unfurling plot.

In the beginning, participants explained detailed aspects of the game, which served orientation functions. Players explained abilities and mechanics the first time they were used. This was a form of orientation and norming this group's application of rules to see if others were both aware and in agreement about how mechanics were being implemented. Additionally, the players tested how they might be judged by others in the group while also testing the bounds of the setting and how the DM applied the rules of *D&D 5e*. The DM's approach to certain rules was tested while players were creating characters and needed information about rules from the DM. In the following example, the DM revealed an aspect of his approach to D&D: trying to set the characters up for success instead of being in constant danger of dying. The DM decided the characters would start with the maximum number of hit points instead of rolling dice to determine how many hit points the characters had.

That's why I always do that, especially because the CR [challenge rating] in fifth edition is not as helpful as it always seems like it should, like oh

these level 3 characters should be able to survive this CR 1 creature. Oops, nope. ... So yeah. I like to make people survivable. The kind of D&D where people die all the time is not my preferred flavor of *Dungeons and Dragons*.

The DM included a critique of the D&D rules system in his explanation of how he approached the game. At several points, there were discussions involving multiple participants critiquing aspects of *D&D 5e* as a rules system. This served to test how others might interpret and invoke the rules (sensing agreement or disagreement) while also orienting the group to their own application of the written rules.

Players also tested each other and the group in general. Periodically in the first few meetings, players made self-deprecating comments that elicited affirmative responses from others. This functioned as a form of testing judgement and support from the group.

Player 1: "I'm just realizing I'm still the most inefficient character maker in this game"

New Player: "awe"

Player 1: "Like, I just flip back and forth between the books so much more than necessary"

New Player: "awe, ' just really care"

Player 3: "Yeah, I forget how long it takes despite how long it doesn't take but it's like, it does take a while, especially with spells."

Player one initiated a conversation by devaluing his competence to efficiently create characters. The other players and DM responded with supportive statements. However, Player 1 revealed at the end of the exchange that he was actually finished with his

character already. “yeah, I think I'm done because I don't do spells and I don't have to worry about any of that.” The group demonstrated acceptance and lack of judgement in response to Player 1's comments. This kind of example was repeated several times in the first few meetings by all the players and the DM.

Among many common gaming norms, this group exhibited an emphasis on accepting the new player (because they had little to no experience with D&D) and allowing mistakes. The group didn't discuss most gaming norms directly, such as taking turns, respecting the DM, contributing to storytelling through role-play, embracing failure with improv, and supporting player agency. Yet, they enacted these norms, presumably drawing from other experiences and broader TRPG subculture. An example of implicit gaming norms happened in the second group meeting. The yes/and principle of improv was used to embrace failure. The DM determined that Player 1 must roll a die to determine his success or failure in attempting to throw a grappling hook and climb. In *D&D* rolling a 1 is considered a critical failure.

Player 1 [rolls die]: “That's a 1”

[laughter from the New Player]

DM: “Wow”

New Player: “Rut row”

Player 1: “What does that mean? We gotta get up there somehow but what does a critical failure mean in this situation?”

DM: “It means that you alert someone of your presence and probably also destroy something valuable.”

[Players celebrate]

DM: “So, what happens is you throw the grappling hook up and then, let me know after I describe this, if you have an alternative interpretation.

You throw the grappling hook up. It goes to the second floor and you see that there are shelves up there almost like bookshelves and your arc goes wide and slams into one of the bookshelves but they aren't actually books they're carved tablets and as the grappling hook goes to actually make purchase it clears them and they fall to the ground and start shattering.

New Player: [exclaims MMM!]

Player 1: “Ok, I think from [Player 1's character]'s perspective, he sees that happen and goes: don't worry it was just some rocks up there it was just some rocks. And just starts pulling harder on it.”

New Player: “Sounds valuable”

DM: “And so, the shelf itself goes uneven and falls and then the grappling hook makes a steady purchase so you can climb.”

Player 1: “I think as he pulls it and sees it's tight there's like an echoing explosion above. Ok I think that went pretty well. I think we got it. and starts climbing up.”

[laughter]

The group responded to the failure with both celebration and sympathy before moving forward with the results. Player 1 accepted the DMs description of how failure played out in this situation and added his own action embracing that outcome in the scene.

Another example of implicit gaming norms was expressed in this group during the fourth group meeting. Both the New Player and Player 3 contributed to the gaming purpose and spent time investigating quest objectives and learned about lore in the imaginary environment, exhibiting the BIP. This was a very typical way to play and progress the game, which they enacted without instructions.

The use of gaming jargon represented aspects from a broader subculture of TRPG players being adopted and enacted in this group without the group needing to discuss what these terms and interactions meant. The DM and Player 3 had efficient interactions using gaming jargon (make a roll, use an ability, DC, result), without explanation. The DM stated “I think that would be a nature check” without instructing the player to roll a die and add a bonus. As Player 3 was rolling, the DM simply said “DC 14” and then Player 3 responded with just the numbers of his die roll and ability modifiers “17 18 19”. The DM and Player 3 both understood what “DC 14” meant in this scenario in terms of taking actions (rolling a die and adding modifiers) and what was at stake in the game based on the results of the die roll.

Some gaming norms were discussed specifically for this group. For example, the group formalized a “side bar” norm for role-playing without NPCs present to allow the characters to discuss plans and reactions as a group. This was established and then used on a few occasions. In the following excerpt, the characters were interacting with a NPC and needed to discuss their plans with each other as if the NPC wouldn’t hear them.

[DM speaking about quest information while role-playing as a NPC]

Player 1: “ok sidebar”

New Player: “yes”

Player 1 (gesturing to DM): “do you appreciate side bar?”

DM: “yeah, I’ll observe a side bar”

Player 1: “awesome”

[players continue to discuss options for further action as if the NPC was not present]

Players utilized the side bar as a norm in several interactions when they needed a way to pause and coordinate with each other while a scene was unfolding. Gaming norms like this formed alongside group norms throughout the meetings.

Orientation continued in each meeting as a key element in re-entering the gaming environment. For example, the DM began sessions by explaining a summary of the previous session and helped explain game processes to the New Player.

DM: “Alrighty so are we ready to get started?”

New Player: “yes, and reminder I’m very new so please give me props.”

DM: “yes so that is definitely part of how I like to, I like to ask questions but also if I ask you a question and you’re like I don’t know why are you asking me this question tell me [DM] I don’t know why are you asking me this question and I’ll either clarify what I’m going for or I will offer an answer of my own to be like how does this sound.”

New Player: “Yes, thank you I appreciate it.”

These examples are a small sample of the ways this group formed a gaming environment through parallel processes of creating an imaginary world, adopting gaming norms, and engaging in formation activities such as testing and orientation. Authority and

agency, sometimes in tension with each other, were other important aspects of this gaming environment.

Authority and agency. The DM was a prominent source of authority in this group, both from the formal authority of the DM role as stated in the rules, and through his position as the only person who had established relationships with all other participants. In acting out his role, the DM was very transparent about how the narrative and game were progressing and made quest objectives obvious to the players. This demystified the gaming process and reduced ambiguity about the gaming environment for a group that was still forming.

One way the DM provided information to the players was by using dice mechanics, such as a history check. The players could roll a die and the DM would provide information to them based on the result. The DM prefaced his explanation by stating how the information he provided fit into the larger scope of the game. “So, this is incomplete. This isn't the entire thing, but it does seem noteworthy to you that you are aware of the idea that in the other cities...” The DM also engaged players about the meta structure of the game.

Okay, if you want me to, I can sort of lay out what seemed like pertinent pieces that are informing what might be your thinking or we can continue to roll it out. We got the rest of tonight and two more sessions for you to sort of get there but I can lay out the working parts because I don't want to be more obtuse than I need to be but if you're enjoying searching these leads out...

Player 3 then asked for a more direct summary of the plot points and options available and the DM provided an outline of the plot points with options for further action.

Transparency and psychological safety were role modeled by the DM throughout. In the following example from a combat scenario, the DM noticed an error on the monster statistics and was transparent about making that mistake that had potentially disastrous implications for the characters.

DM: “That's wrong. I wrote down the wrong number there, there's no way that it is 7d6 Damage.”

Player 1: “Jesus!”

DM: “I wrote down the page that it's on. I must have had that somewhere else in my brain while I was trying to.”

Player 3: “It’s like the breath weapon of an adult dragon or something”

Player 1: “You know we ain't worthy if you are doing that much damage”

DM: “yeah, no, you should have been a higher level which is something that I control I'm not that kind of game master. that's BS. Okay, however, oh it's 2d6, seven is the average and so my mind fused them.”

In addition to making it ok to make mistakes, the DM provided the players with agency. The players were cooperative and were afforded freedom to make decisions without strict direction from the DM. The characters engaged each other regularly in planning. They often included each other in decision making during role-play, in a cooperative manner. For example, after a discussion among all the players about their options, they came to a consensus for how to proceed. After players discussed several

options for proceeding in the game a decision was suggested and consensus was affirmed vocally. Here is what they said after discussing options,

Player 3: “I think we should see Abdi. We should probably hit Abdi up for a job...”

New Player: “Ok, let’s do it.”

Player 1: “Ok, ok, I like that idea.”

Player 3: “I think it might be a good idea to see what he thinks about this.”

The game progressed with players demonstrating agency and decision making accompanied by periodic interventions from the DM. In another example, the players alternated role-playing until the DM prompted a dice roll to move the game forward. In the following conversation, the players were role-playing a scene to try and investigate conflicting information from different NPCs. This prompted the DM to ask for a dice roll to advance the plot and confirm their suspicions. “Anyone who wants to roll insight can go ahead and roll insight against a DC 15.” Player 3 rolled a successful insight check and the DM continued providing key information, role-playing, and confirmed some of the player’s theories about the NPC, to which they rejoiced.

The DM used his role as a guide to help the group work towards the group gaming purpose and maintain their agency in the previous example. The group celebrated getting confirmation that a NPC was a ghost as they had suspected. This was also an example of the DM balancing attention among players in the scene. Player 1’s character and the New Player’s character were primarily involved in role-playing this interaction and the DM initiated interaction with Player 3’s character to roll a die for the insight check.

The DM used his authority to guide the players toward the gaming purpose when needed. The DM's role as a guide extended beyond just the game frame. For example, at the end of the third meeting the DM prompted the players to discuss what they wanted to do in the next session and coordinated scheduling.

DM: 'Cuz you're basically going shopping if you want to continue to prepare for that but I figure anything else you need to do you would probably do the next day like decide if you're going to go to that meeting with Nutept, decide if you're going to act on what you seem to have learned about Farook.

...

Player 3: "Ok well good I'm glad we have options now."

[group discussed options both in and out of character]

DM: "So, it's getting kinda late so how's about we level you all up and we meet with Nutept and Farook next week?"

The DM concluded the meeting by leading a conversation to schedule the next meeting.

The DM was aware of his authority and cautious in how it affected players through leader-member relationships. Toward the end of the third meeting there was an in-game encounter with bullies in an alleyway that raised the stakes by posing a threat to the characters' survival. The ensuing fight included a critical hit that reduced the New Player's character to zero hit points surprisingly fast and resulted in the character falling unconscious. The DM expressed his discomfort with the magnitude of the danger in this instance by saying "I hope things turn around," and made comments between other

players' turns as the combat continued. The DM acknowledged this caused so much harm to the character "I don't, [sigh], critical hits are rough. critical hits are bad." and suggested in-game solutions "I think [Player 3's character] sees what's going on and fortunately [Player 3's character] is a healer." The stakes were raised higher than desired and too quickly in this example, illustrating how the rate at which tension rises is important for managing the game and how various frames are used in the DMs responses to address unintended tension.

The DM expressed concern for the characters potential demise on multiple occasions and was transparent in using dice to help decide which characters got targeted by monsters. Showing concern for the characters was necessary and was balanced with the need to provide challenge and build tension. Sometimes the DM enforced rules when it suited the dramatic tension, even to the characters' detriment. "Since I've gone through the trouble of actually staging this, I'm gonna say the rules are the rules and that creates some of the dramatic tension here." The DM balanced being an adversary by celebrating the characters' successes. This was demonstrated when the DM reacted with excitement after the New Player scored a critical hit against the monster.

New Player [rolls die]: "twenteeeeee!"

DM [excited]: "O, that's a critical hit!"

Celebrating players' and characters' success, balancing attention among players, guiding the game transparently, providing options in decision making, and using game mechanics to displace tension were all ways that the DM used his authority and afforded agency to the players. The DM succeeded in using authority to help the group become

more familiar with gaming norms and rules that supported the gaming environment. As the group meetings progressed, the group developed with a sense of familiarity.

Group development with familiarity. Group development was accompanied by an increasing sense of familiarity. The basic interaction pattern and norms for role-playing developed over the course of five meetings. The group became familiar with TRPG norms, group specific norms, their unique play style, and the physical space as they formed the gaming environment. Some patterns were evident from the beginning.

Frame merging was implicit in this group from the beginning and used effectively to move the game forward in service of the gaming purpose. In the second meeting, Player 3 role-played with a NPC and then switched to a player frame once the role-playing was no longer progressing. Players then merged player and character frames while role-playing to end the scene. For example, Player 3 was role-playing and speaking from his character's perspective and then spoke from his perspective as a player when he said "I can't think of anything else I want to ask this guy I feel like I've got a pretty good idea of what, of what's going on." Player 1 spoke from both character and player perspectives in response to Player 3 "alright, so we're gonna go back to the surface." This kind of frame merging and switching was common and happened during every game session. Other patterns developed over the course of the meetings.

The group became familiar with gaming norms about sharing agency among players as the group developed boundaries. The group expressed clear boundaries for which aspects of a decision were within a player's authority and what aspects were within the DM's authority. An example of the DM having decision making authority was in the fourth meeting when players considered what possible consequences would emerge

within the imaginary world as a result of actions taken in the previous session. In this interaction, the DM solicited opinions from players about how the imaginary environment would be affected by players' actions and then made his own decision. After confirming that the player who initiated the action was in agreement, the DM then described the final decision and the game continued. In this instance the DM was the final decision maker about how the setting would develop. When a decision affected a particular character, that player had the final say. Although, the group always collaborated before decisions were made, often role-playing together to offer contributions for how the story would develop.

Role-play became a natural pattern of interaction with players jumping in and taking turns during scenes and participating in collaborative storytelling together. For example, there was an interaction between the New Player and DM role-playing a conversation about the New Player's character's backstory in which other players also contributed by role-playing. In this example, all participants contributed to the developing lore in this quest after the New Player had been role-playing with the DM.

DM (In NPC voice): "I think the person who made the city is the toad"

New Player: [gasp]

Player 1: "That's literal?"

New Player: "Think so."

DM (In NPC voice): Very literal."

Player 1: "O, the person is a toad okay."

DM (In NPC voice): "They fused with the obsidian core that they brought in there and they became this creature."

New Player: “Like a two-for.”

Player 1: “A two-for.”

[New Player and Player 1 giggle]

DM (In NPC voice): “I suppose a very powerful wizard or sorcerer or practitioner of the arcane arts undergoing that sort of transformation, maybe people start to call that a god at a certain point.”

Player 3: “But there are other stories of other toads and other cities. Did that happen to all of them? Or is ours possibly the original?”

Participating in role-playing and collaborative storytelling was a primary expression of the group gaming purpose that developed over time. The group gaming purpose was reinforced as the narrative progressed. Tension started with low stakes and gradually rose through narrative progression as the game developed. The group reacted when progress in the game story was made apparent. For example, there was a burst of energy after quest objectives became more obvious and the narrative moved forward with key plot points being developed. This surge of energy and excitement indicated a celebration of progress towards the quest and gaming purpose.

In addition to becoming familiar with the gaming purpose through narrative progression, the group became more comfortable playing together over time. This was evident in analyzing how the group played in the beginning of earlier sessions compared to at the end of sessions and in the later sessions. The beginnings of earlier sessions (meetings 2 and 3) were less comfortable and everyone just stayed in their seats. However, interaction following the breaks in the second and third meetings was

noticeably smoother than before the break, and participants started to freely get up for snacks and joke around.

The third meeting was similar to the second meeting. There was much more energy expressed after the group took a break in the third meeting and interactions were smoother. There were inside jokes that became apparent during the third meeting, which exemplified the group building a common experience. Deeper meaning making began to surface later on. Deeper meaning was accompanied by examples that were more common as the game progressed such as embracing failure, working together towards a gaming purpose, role-play between players, and showing intimacy in-game.

The fourth and fifth meetings were different from previous meetings in that there was not a break, interactions were smooth throughout the meeting, and players freely got up to get snacks while others played. This was in contrast to earlier sessions when players hesitated to loosen up until after taking a break. During interviews, participants reported feeling more familiar and that the experience was more predictable as time passed.

Cohesion arose as the group explored intimate topics and drama in the game and then was expressed out of game as well. By the beginning of the fourth meeting, cohesion was demonstrated outside the game as the DM prioritized including Player 3 in a conversation before the game started. The DM and Player 1 were talking about growing up together and lamented the rural area culture in their childhood hometown. The Player 3 joined the conversation even though he did not grow up there. The DM included Player 3 in the conversation by talking about the rodeo and Player 3's hometown, finding similarities. This was in contrast to the previous 3 meetings in which pre-game

conversations did not include individuals who weren't directly involved in the topic of conversation.

Over time, the group became accustomed to the physical environment and being observed. Player 1 mentioned the camera at the very start of his individual interview, before being asked any questions. "It was weird the first time but, by the second, third, fourth, [shrug] it's just there." Group observations provide additional support for this claim. To initiate the game in the final meeting, the DM summarized the recent plot events in the game and then narrated an opening to this session using "camera panning" language in his narration. The camera was also used as a reference point without disruption to the BIP or game progression when the players were navigating the battle map in the final meeting. The DM asked where on the map the New Player was intending to cast a spell to which the New Player replied "I don't wanna get my friends so, the one closest to the camera. ... yeah, blam, cloud of daggers, not near my friend." In addition to becoming familiar with the physical environment, participants took on consistent roles within the group that became predictable over time.

Roles. Participants exhibited common group roles within the gaming context. Player 3 took on a role of lore investigator which provided the players with in-game information and aided the group in building connections within the imaginary environment. The DM did most of the caretaking and teaching, such as explaining aspects of the game to the New Player.

Participants' roles extended to multiple frames. For example, Player 1 was a harmonizer, kept things light-hearted, and supported the New Player. In the player frame, Player 1 contributed to psychological safety and supported the New Player by helping

with math and helped them understand rules during combat. Player 1 also acted supportive in-character when Player 1's character checked on the New Player's character immediately after a fight, exhibiting caring.

[at the conclusion of combat]

Player 3: "Are they gone?"

DM: "Yeah, they are gone."

Player 1: "[New Player's character] are you all right?"

New Player: "aaaahh"

Player 1: "Did you just get stabbed near to death?"

Player 1 demonstrated the harmonizer role outside the game too when others were expressing frustration with change in their academic program. Player 1 reframed the complaints in a positive tone and the DM responded by reframing his frustration.

The players' roles outside the game sometimes directly influenced their character roles. The New Player incorporated aspects of their lived experience as references in their character's home life and personally identified with their character while role-playing. Role-playing, regardless of conscious identification, was a primary way that intimacy was introduced in this group which initiated the emotional development of the group.

Intimacy in role-play. This group progressed in task related development first (by playing the game) and then began interpersonal and emotional development. During the beginning period of formation, interactions consisted of more individualized contributions and less emotional expression or connectedness. Role-playing provided opportunities for emotional experience after players became oriented through the task of playing *D&D 5e*. Emotional expression was resisted at first and gradually accepted in

later meetings. During the second meeting, perceived flirting and intimacy elicited humorous reactions from players.

DM (in NPC voice): [hushed] “Perhaps I have delighted in being coy about this information.”

New Player: “Are you flirting with us?”

[laughter]

Player 1: “I felt that too!”

New Player: [exclaims] “Yeah! is there something, some other...”

[inaudible over laughter]

DM: “Yes, I was also going to draw that parallel.”

[laughter]

The DM revealed other emotionally intimate themes in the narrative including loneliness and lost love. In one scene with a NPC the characters reacted to intimacy with humor. This avoided emotional intimacy introduced by the DM which had not previously been expressed in this game. There was some dissonance (mood shift from intimate to lighthearted) between the DM’s intent and how the players were reacting. The dissonance was resolved by continuing with the game narrative. Players responded slightly differently later, when the DM introduced another opportunity for having an emotional experience. In the below example, the characters were role-playing a scene with a NPC, learning background information about some other NPCs, and considering writing a letter which included sensitive information.

DM (in NPC voice): “Nutept also had a relationship to Fasood”

Player 3: “Relationship? He was, he was his mentor, he was his mentor.”

[gesturing one hand above the other, repeatedly]

DM (in NPC voice): “Oh, they were closer than that, they were of a similar age.”

Player 3: “Colleagues?”

DM: “Wow.”

[laughter]

New Player: “Closer than that!?”

DM (in NPC voice): “They were lovers.”

New Player: “I think they sated one another’s hunger.”

[laughter]

DM (in NPC voice): “Since Fasood’s disappearance, Nutept has not taken another.”

Player 3: “I feel better about going to Nutept about that then.”

Player 1:” Can we have a quick, while you pen this can we talk over, maybe if we are willing to share this?”

DM (in NPC voice): “Well it's sort of an important consideration because I don't want to pen this letter, it might bring me to, it might, it might bring me to tears to write this. If you decide that you're not willing, if you decide that you're not willing to go then I would put myself through a large degree of emotional duress for no particular reason.”

[nervous laughter]

The players discussed the implications of this information and adjusted their plans to accommodate the emotional sensitivity in this situation. This time, the players engaged

with the emotional sensitivity presented in the plot and incorporated it into their actions instead of laughing it off and changing the subject.

The DM wasn't the only participant to introduce relational themes. Later, desire for emotional connection was expressed when the New Player made a comment about how caring the NPCs acted toward each other and said "Why aren't we like that?" Intimacy and other emotional topics were handled with less resistance and seemed normalized in later meetings.

In the final meeting, the DM expressed loneliness in some emotional NPC dialogue building to the climax of the game. The New Player expressed an empathetic reaction to the NPC. Role-playing continued the dramatic scene with the NPC and the New Player expressed their counselor demeanor, from professional life, in character while saying "You know the reason why you're coming together with your siblings is because you kind of sense that your days are ending. You built this city. It sounds like you don't want the city to fall apart. Does it have to be a catastrophic ending for the cities by joining with your siblings?" This led to a dramatic climax in the game and a peak of expressed emotionality in the group. The narrative was used to introduce emotional experiences in which the players could incorporate aspects of outer frames (person, human) or maintain personal distance from the emotions in the narrative. Framing was used to both displace and embrace emotional experience as the game progressed despite having initial resistance. Framing and displacement allowed the players to gradually express emotional experiences.

Displacement and identification. Uncomfortable and/or emotional experience was clearly observed when the group used the game to frame a taboo topic. A critical

incident in the third meeting was The Thuribel Scene. The Thuribel Scene made some participants uncomfortable at first, but the DM engaged in a way that made the scene useful to the gaming purpose by integrating lore and clues for the characters' quest into results of improvised interactions. The players trusted the DM to manage any morally taboo topics in game. One strategy employed by the DM was using game mechanics to roll dice in a way that helped resolve tension in the scene. This demonstrated how using the dice system to progress the game helped provide a neutral source in managing resistance and was a palatable way to resolve tension. Even though players could interpret dice results in their own way, the dice were viewed as objective for the purpose of displacing responsibility for unwanted outcomes. See Appendix B for a transcript of the Thuribel Scene, which is described below.

In the Thuribel Scene, the players were trying to discover properties of a liquid that was found in a thuribel during their adventure. They identified some NPCs to try ingesting the concoction and see what happened to them. Player 3 suggested creating a steam form of the liquid and putting the NPC in a closet. The New Player made a comment about that seeming like "We're gonna gas them?" even though Player 3 did not assume the mysterious liquid would be lethal. Player 3 decided to learn more about the liquid's properties first without putting any characters at risk. The DM had Player 3 roll a die to determine what he learned about the liquid and then delivered information about the effects being similar to an acid trip. Throughout this interaction the group veered away from a more taboo topic of potentially lethally gassing a fictional character and toward a more palatable topic of being on drugs. Eventually the DM used the drug trip to reveal more clues about the quest and narrative lore that was interesting to the characters.

The group resisted certain taboo topics and clearly valued social justice. Thus, an exploration of experimenting on a NPC “feels criminal” to Player 1 in his sarcastic remark. While the topic felt taboo at the time, the group was able to accept some discomfort and make meaning of the scene by integrating it into the plot of their quest. During the following meeting, there was excitement and sympathy expressed while remembering the Thuribel Scene. The New Player demonstrated this by laughing and saying “Oh, oh, oh yes [leans back and claps hands together] the closet trip. Oh, poor thing.” This example illustrates one of the ways that the game was used to re-frame taboo topics and displace discomfort.

Displacement happened on the meta level with the game’s rules too. The DM balanced his role as an advocate for the players and an adjudicator of rules by critiquing the published rules system and using the rules (and/or dice) as a target for displacing threats to the characters. In the following example, the DM expressed that he disliked when the monster he controlled did a lot of damage to Player 1’s character and later celebrated the character doing a lot of damage to the monster, even though the DM created and controlled the monster. In *D&D 5e* rolling a 20 indicates a critical hit and doubles the amount of damage.

DM: “First comes the bite [rolls die, pauses, shakes head] which is a natural 20.” [disappointed]

Player 1: [looking at the die] “And it’s a 20.” [chuckles]

Player 3: [chuckling] “We’re gonna die, these cities are colliding.”

New Player: [hesitant] “Yeah.”

DM: “Here's the thing about encounter design in fifth edition *Dungeons and Dragons*, it's incredibly unreliable even if you use their guidelines.”

Player 1: “O, you don't use their guidelines, they're not good.”

DM: “The guidelines are bad, but you have to basically eyeball and learn by trial and error otherwise.”

A few minutes later, when Player 1's character did a large amount of damage to the final boss monster, the DM exclaimed a loud “Ooo!” to celebrate the character having success against the enemy. In this example, the DM blamed the rules for doing too much harm to the player's character and then compensated later by celebrating the player's character doing a high amount of damage. The rules were not the only subject of displacement. Characters were subjects for both displacement and identification.

Displacement and identification with characters was handled differently by individual players. For example, the New Player identified personally with their character. Player 3, however, embraced harm to his character as long as it contributed to a good story, which he exhibited during a battle. Player 3's character was pushed unnecessarily into a pool of poison upon Player 3's request. Player 3 acknowledged this made the probability of dying more likely for his character and said he was “down for death.” The DM acknowledged Player 3's request “If that's how you want to play it” but the New Player was more personally attached to the characters and tried saving Player 3's character. The DM played a key role in balancing differing levels of identification between players by facilitating rules objectively and acknowledging each player's role subjectively during a deadly situation for the characters in the Character Death Scene. See Appendix C for a transcript of the Character Death Scene, which is described below.

The character death scene happened during combat with the final boss monster. [Player 3's character] was hit for a large amount of damage that reduced him to zero hit points which meant he was unconscious. The New Player reacted by exclaiming "O, nooooo!" but Player 3 asked for an even more dangerous result, saying "Can I say that it pushes me into the pool?" The result of falling into the pool was that the character was now poisoned in addition to being unconscious. Player 3 acknowledged how being poisoned would impact his character's ability to resist death "Okay, that's probably disadvantage on my death save right?" The DM confirmed that this was Player 3's choice by saying "Uh, if that is how you would like to implement this, then yes." Player 3 responded in the affirmative "Yeah, I'm good with that. My characters just rarely die." While Player 3 was somewhat detached from his character's fate, the New Player expressed their shock "O my god, ruthless!"

Combat continued and on Player 3's next turn the rules indicated that he must roll a die (called a death saving throw) to see if his unconscious character moved closer to death or closer to waking up. This roll had higher chances of failure due to the poison effect he elected to endure. Player 3 failed the death saving throw, moving his character one step closer to death (3 failures results in permanent death). The New Player used their turn to try and save Player 3's character, making progress but not succeeding on the same turn. On Player 3's next turn, another death saving throw was in order. Player 3 rolled a 1, called a nat' 1 and considered an epic failure, which the rules indicate counts as 2 failures on a death saving throw. The DM put his face in his hands and the New Player inhaled loudly at this news as Player 3 stated "I think I just died" while laughing,

covering his mouth, and turning red. Player 3 seemed aware that this turn of events was having an impact on others.

This was a particularly impactful event for the New Player. The New Player exclaimed “Noo! I’m mourning my friend.” and made a nervous squeee sound. The DM responded by checking-in with the players. “I guess this is a decent time to check in. Is everyone okay with the repercussions of this fight to save the city being that [Player 3’s character] doesn't make it?” Player 3 weighed in stating that a significant event such as death should have meaning and requested, “I would like it if I had some sort of final action of some kind.” The DM acknowledged the New Player’s reaction and Player 3 agreed to adjust the rules so that his character didn’t die suddenly at this instance without another opportunity to try and save him.

On the following turn, the New Player was given an opportunity to roll a die to try and save [Player 3’s character]. Improbably, the New Player also rolled a nat’ 1 which elicited expressive reactions. The dice results of two 1’s in a row was seen as a sign that the character should die, despite the players altering the rules. Player 3 said “This is fate.” and “Those two 1’s in a row though...it really doesn’t feel like it’s meant to be.” The New Player responded “RIP, I’m, yea, that’s sad.” and “It’s very damning.” The DM explained another check in was needed.

How much contrivance are you willing to go for here? Are you willing for this to step in and effect [Player 3’s character] or was two 1’s in a row just two 1’s in a row and sometimes you got to take the ‘L’ like, I’m okay, I want to check in with you all, I’ll just be transparent, like, we can let the game play as it laid or we can say that [New Player’s character] has been

pumping so much magic into this entire area through song which is ostensibly healing and revitalizing for at least the incredibly sad Scheherazade [NPC] that it could have an effect [on Player 3's character].

Player 1 contributed by reinforcing that a player had authority over their character by saying "I feel like it's on [Player 3] it's your final decision if you want it to be or not." Player 3 was sensitive to other players' input and suggested how the character dying with a final act could contribute to the climax and conclusion of the narrative when he said,

I would be satisfied with a death of creating first a flame. Just like one flame that...I think his fist uncurls and there's just this flame inside of it and it's a burning flame and it's a healing flame it needs to heal a little bit please and yeah, it's like a life energy I guess... it heals people around for a little bit maybe and it's also real fire that lights oil on fire.

The DM created a series of dice mechanics to play out Player 3's suggested final action in the game, defeating the final boss monster. The players played out this final action and narrated the conclusion of the battle and climax of the game.

Player 3 embraced death as a possibility for his character and suggested increasing danger that came to his character by getting pushed into a pool of poison. There were two natural 1's (lowest possible result, representing epic failure) on the dice rolls associated with his character dying which caused high anxiety for all the players. Player 3 asked if everyone was ok with the increased danger to his character, the New Player was not ok at first. Player 3 acknowledged the disparity in how others were experiencing emotions around his character's death, saying "this is embarrassing." The

players had a conversation about checking in with each other, and the DM checked in with the New Player who said “no” but ultimately Player 3 wanted a final act for his character to make the death meaningful. The DM and Player 3 agreed to bend the rules slightly to lessen the danger. Although the dice and circumstances continued to unfold in a way that resulted in the character’s death. The participants made meaning of the character death as part of the climax within the narrative as a way of using storytelling to contain the emotional loss in this experience.

This example is important for understanding group dynamics because meaning making is cyclical within individuals and groups. Individuals have different experiences that are incorporated into the game story as they make sense of their experience together. Players all engaged from their individual experience of the character dying and had an impact on how the entire group proceeded. The New Player’s emotional response changed the meaning of a character dying for the group because it meant that a player would experience strong emotions as a reaction to the event in the story. Realizing the New Player’s reaction contributed to Player 3’s emotional experience by stimulating embarrassment. Group dynamics, including authority boundaries, were demonstrated in game processes. Individual players still maintained decision making authority for their respective characters but only after being influenced through the process of making sense of each other’s contributions. They used game processes to help accomplish this by bending rules and respecting the fate of dice rolls. All of this contributing to the game story. The group continued making meaning through storytelling as the game transitioned into an epilogue.

Storytelling containment. The climax and epilogue of this game demonstrated how the game was used as a form of storytelling to contain, and make meaningful, the players' emotional experiences. The meaning of the story was derived from uncomfortable situations and letting dice or game mechanics decide outcomes to narrative elements of the game. The climax of this game involved Player 3's character dying and a culminating plot to reunite lost lovers, both of which were emotional experiences for players. The DM narrated the aftermath of the final boss battle and guided the group into a discussion about the epilogue of the story for the characters by stating,

So, what all happens for you as you come back and rejoin the city? There's obviously a painful loss that you've experienced tonight but what happens in the aftermath of this for each of you? How are you imagining life begins to take shape as you put [Player 3's character] to rest and begin to move on?"

The players then engaged in a discussion about how the story should end in a meaningful way.

Creating an epilogue served to make meaning of an emotional ending. Doing what they thought was right for Player 3's character with a funeral, having a happy ending for the New Player's character starting a family, and defining meaningful retirement for Player 1's character. The DM closed out the narrative, connecting all the characters' stories.

DM: [summarizing character epilogues] "...Under that same sun that [Player 3's character] worshipped and made the sort of central pillar of his life, even now many years later the three of you are connected. Thanks for playing *Dungeons and Dragons* everybody!"

[laughter]

Players in unison: “Yay!” [clapping]

New Player: “That was fun.”

Player 1: “You can’t do a happy ending can you? It’s all bittersweet.”

The group continued to discuss happy endings and bittersweet feelings. Debriefing was short but included discussing how the story related to important topics like social justice, which had been expressed implicitly up to the debriefing.

During the debrief, players mentioned being worried about perpetuating systems of power within the game. Player 3 said “I’m kind of worried that we were just perpetuating like an inherently unstable system. It’s just gonna happen again.”

Throughout all 5 meetings, this group used the game to reject problematic power hierarchies in society. Having queer identities and/or experiencing the impact of patriarchy was discussed in all the pre-game conversations at the start of each meeting and was paralleled in aspects of the imaginary environment.

For example, at the start of the second meeting, the DM and the New Player were agreeing with each other in their view of gender as a fluid social construct and relating their non-binary identities. The DM was lamenting his frustration about his experience of patriarchy in his academic requirements, and specific professors. The New player was sympathizing with their shared student experience and the stress of performing gender norms in therapy.

Societal power was also acted out in game. The narrative of the imaginary world they created involved a privileged class of society, which elicited reactions from players. Some players engaged in antagonizing the NPC and offered a critique of power

structures. This is evidence of the players' experiences with power structures being expressed in game, which was more palatable than experiencing it in other areas of life. The participants conscientiousness and awareness of authority and power structures also applied to the role of the Dungeon Master.

This analysis of group dynamics outlined various qualities of the gaming environment and its formation. Group observations revealed parallel environments, authority, group development, intimacy in role-play, displacement, identification, and storytelling related to group dynamics, processes, and roles. Leadership was part of the DM's role and a subject of the final research question.

Research Question 3

1. How did leadership contribute to a gaming environment in a group playing *D&D 5e*?
 - a. What practices and strategies were identified that supported/inhibited the construction of a *D&D 5e* gaming environment?

Leadership in a Gaming Environment

The third research question addressed the impact of leadership in forming and maintaining a gaming environment. This related a gaming environment specifically to leadership after investigating what constitutes a gaming environment and how group processes revealed qualities of a gaming environment. Leader-member exchange and psychological safety became apparent as significant leadership factors in this study during the analysis of individual interview data. Data collected during individual interviews were primarily used to address research question 3 while also being informed by data from other phases.

Individual interviews. The individual interviews followed the group observations and served to incorporate individual participant perspectives that may not have been observable or verbalized in the group. Interviews were video recorded in-person within a week of the final group meeting. Interviews prioritized the following topics: participant background, participant's experience with D&D 5e, descriptions of the group of players, defining events in the game, a survey of psychological safety items, and factors influencing the play experience. Analysis of the interview data included notes, transcripts, re-watching recordings, and writing analytical memos. The analysis indicated that participants experienced psychological safety, felt there was a contained psychological environment with this gaming group, and relied heavily on their relationships with the DM to trust the environment. Understanding that this group felt a gaming environment that was psychologically safe is connected to understanding how the DM's authority and leadership was influential in their experiences.

Psychological safety. Participants were asked questions about psychological safety, which were from the psychological safety instrument developed in pilot study 2 and given an opportunity to explain their answers. There was consensus among the participants that the game felt psychologically safe, mistakes were ok, people contributed ideas, didn't judge, and were committed to having a fun creative experience together.

The New Player connected the feeling of being welcomed in this group to creating a world together, stating "It was very welcoming and nice but it was really fun to kind of just start to figure out how this world can be." They also reported feeling supported and sharing creativity as it developed. "...it felt supportive, it felt like we could explore a lot, and also see each other's characters

develop.” Player 1 talked about how psychological safety started becoming established through the act of worldbuilding in the first meeting, referred to as session zero in the gaming community.

I think everyone knew by end of session 0, our world building, that it was gonna be pretty okay to kind of say what you want, especially ‘cuz any wild idea that got brought up was like, yeah that's cool, we like that.

Feelings of psychological safety were connected to a sense of community felt by everyone in this group and by creating something together in this gaming environment.

Gaming environment. Players were very confident that the environment was safe in-game but reported not knowing about the out-of-game environment. It sounded as if participants thought playing the game was separate from being in the group, despite demonstrating frame merging in group observations. Group observations of framing and players’ having emotional experiences indicated that multiple frames impacted players’ experiences in the gaming environment, but the players reported their experiences as if the game was separate from the group. Participants also reported that the characters were separate from the players and at the same time reported feeling as if they were having the experience of their characters.

The New Player described role-playing a character as a way to have some distance and safety in the experience of playing.

I like those moments when we take off our hats and we're just, like, shootin’ the shit for a little bit cuz you've all had a long day and are like, o,

put our hats on we get to play. So that was nice to have a layer there for sure.

And how the game can be both silly and serious: “Here, the purpose of this is to kind of be a little silly. You can be really serious, we lost someone.” The New Player explained how playing characters in the game felt both separated from them and like they were having a direct experience by describing the time [Player 3’s character] died.

So, it just was stressful, but the stakes were low, ultimately, ‘cuz I know my friend isn’t actually dying. You know, they’re not actually in acid but it’s just like, o but their character is, o no, it’s like plucking the heartstrings but very gently.

These findings illustrated how framing was inherent in how participants made sense of the social and psychological structure of the gaming environment and how the game provided a concrete mental object for displacement. Player 3 described how the game helped provide a concrete structure to the gaming environment, even without knowing the other players, “There’s a game to play. That definitely makes it, for me it makes it more comfortable, I think, it makes me more willing to branch out into things.” Even though participants compartmentalized and displaced their experiences in reports about the structure of the gaming environment, they reported a shared feeling of being part of the group which indicates the presence of a group environment.

The participants reported consensus about feeling a sense of community in this group that created something together which linked the gaming environment to creative

game processes. Player 3 reported how important a cohered group environment was for gaming.

I think that's one of the most important parts of doing tabletop role-playing is to get people involved and make them feel like they're part of a group. That's one of the things ...that should take precedent over everything else pretty much is for people to feel like what they're doing matters, that their opinion on things matters.

Participants also reported storytelling and worldbuilding was part of the gaming purpose and creating a gaming environment. Player 3 put it this way,

We want to see the story play out in the way that we've kind of set it up and the way that [DM] sort of set it up. So, everyone kind of wants to work to make that as good and cohesive an experience as possible, so far as I know. I know that's what I go for and I think that's kind of what everyone else was more or less going for too.

The DM was aware of how the group connected by engaging in a creative process together and building on each other's contributions.

... They also developed a sense of group or community through the way that they were reflecting each other's characters back and the way that they were reflecting the common experiences that they were having back through things like emotional reaction or exclamation or jokes being made that signal an understanding of what's going on, an ability to either break tension as necessary or to use that as a, potentially, a tool to come closer to other people and to sort of create this shared ongoing sense of community.

Feelings of group membership were formed in this gaming environment and developed over time. Time, creativity, and common expectations were reported to contribute to the formation of the group while playing the game. The structure of the game environment was linked to the feeling of being in a group through the task of playing the game, particularly by the gaming purpose to create a game story together.

The task of playing the game provided a concrete structure that helped players feel confident about the gaming environment. Player 3 described his comfort with the game system as a structure for social interaction that contributed to a clear group purpose. “Everyone's there for a purpose and they all generally want to get the same thing done. That's something you can get behind I guess.”

In addition to structure provided to the gaming environment by the game system and growing familiar over time, participants reported that the DM role was an important factor that influenced their experience of the gaming environment. The New Player described the role as “...[DM] being this narrator who is also kind of helping all of us. Like, oh what a sweet, benevolent omnipotent narrator.”

Leader-member exchange as a DM. The participants in this study reported that the only person they knew or interacted with prior to playing together for this research was the DM. Each of the players also reported a strong connection to the DM that was influenced by their previous experiences with him. Player 1 had the most history with the DM, having grown up together and helped each other through significant life events, stating “... [DM] and I have been friends since middle school. I’ve known him since I was in sixth grade. We’ve been inseparable. As we got older, we stayed in touch and are still part of each other's lives...” The New Player, who is in the same academic program

as the DM, explained how the DM was a common connector for the group, given that the players didn't know each other outside this research.

There was a common denominator that brought us together, I think, we know [DM], I know [DM], [DM] is pretty cool, that made it feel much more secure. You see someone you get along with getting along with another person, so you're probably gonna get along with that person.

Player 3 had the least connection with the DM outside the game, compared to the other players, but still relied on this relationship in trusting the group, stating: "...if someone else was DMing, maybe I wouldn't be so sure but with [DM], yeah, I already have that confidence." And "I don't even really associate with people who are like toxic or whatever and I know that [DM] doesn't either."

The DM reciprocated the importance of individual relationships in his role as the DM for this group and reported his individualized approach to ensuring each person had a good experience while being mindful of power dynamics.

My goals [for influencing players' experiences] are shared but the mechanisms for meeting those goals are going to depend on things like relationship and context. And sometimes that involves being mindful of broader social level power dynamics or relational dynamics but then also meeting a specific person where they're at with their proclivities or with their preferences and their personality ... try to engage with people to achieve the things that they might want or to achieve the sort of experience that you want everyone at the table to have slightly differently based on those interpersonal factors.

The DM's approach prioritized common goals for LMX quality while providing individual attention to ensure LMX quality specific to each dyad, and accounted for social dynamics. Player 3 also reported the importance of understanding how social power dynamics influenced the game.

There has to be a certain amount of cooperation ... [and also] ... share our progressive worldviews, or especially when it comes to a fantasy setting, some people may bring in certain assumptions when it comes to fantasy that might be sexist or racist, culturally insensitive that kind of stuff ... we generally are good at avoiding that but that's something that's important...

Being mindful of individual needs and social identities is important for ensuring each person has a safe experience to be creative. These group members all shared values about being progressive so the tone for inclusive play was implicit and not specifically negotiated before playing. They did, however, speak about progressive values in brief moments during play and when discussing their mindset about the game in interviews. In addition to modeling inclusivity, Player 1 reported that the DM role-modeled and enabled psychological safety and creativity in his role.

I think he's able to really capture emotions well. I think he's able to capture the feeling of being different people very well. He's also very concerned with a lot of things I'm concerned with, namely being like making sure the table is a safe space, making sure that everyone is comfortable with what we're doing and is able to like experience the game in a way that is fun for them and is very open to like hearing criticism if ever there is any. There's rarely any but if things aren't going well for somebody, he's open to

listening to that and making changes so that person can better enjoy the game. Also, he's funny as hell and does great voices.

Trusting the DM to manage the gaming environment included accounting for out of game experiences impacting experiences in the game. As Player 1 put it:

I guarantee you that if [DM] was not okay with where it was going or I wasn't or [New Player] wasn't, and I started to feel like this was not a scene they want to participate in [DM] would have changed that scene very quickly and I trust [DM] to do that. But I think as it was, the scene itself, putting drugs you don't know what they're gonna do to somebody into them, it can go very dark and I think in a lot of worse groups would go dark and we wouldn't worry about how that might affect someone or what experiences someone's had with substances or anything like that but [DM] made a point of making it like he got frog eyes, like [DM]'s not gonna go darker or trying to delve into that especially if you're not sure if someone at the table is going to be okay with this...

The DM's role-modeling and trusting relationships with players were important for individuals and were reported as reasons for why the group was successful. There were specific ways in which the participants were aware of the DM's influence in creating a good gaming environment.

The participants reported that the DM was instrumental in three specific ways (feeling heard, asking for input, connecting individual contributions in a story) that contributed to the success of this group forming a good gaming environment. Player 3 talked about how the DM helped players feel heard and incorporated player input.

I think little moments where someone will ask, oh, can my character do this or can this be a part of the world and then [DM] being accommodating towards that has always been especially, like, a lot of the stuff with [New Player] and the song in the musical aspect of that. I remember that being memorable, I think just because of how it kind of deviated a little bit from what I'm used to, I think [DM] was especially accommodating towards it because [New Player] hasn't done this sort of stuff before and it's always easier to just say yes in those sorts of situations because you know you don't want to turn someone off of it. That's one of the worst things you can do as a DM is to just shut someone down when they want to try something and that goes back to the cooperation, we're all here for the same things...

Player 1 talked about the DM asking for input, stating, “[DM] had pressed us to say something about our character, which he does a lot, to put it on us to deliver some kind of backstory that's important to us.” Player 1 also described how the DM connected players' contributions in the story, “The DM is tying it together and leading them on their narrative.” This was demonstrated in the epilogue when the DM ended the game and tied the narratives of all the characters together, to which the characters rejoiced. The specific behaviors and mindsets exercised by the DM in this study were examples of how the authority of the DM role contributed to a gaming environment.

In addition to adjudicating the game, the DM helped facilitate creative processes through which the group developed familiarity and psychological safety. Players relied on their relationships with the DM in order to trust the group. The players made meaning

of their experiences by compartmentalizing their experience role-playing as characters and displacing emotional experiences through multiple frames in the gaming environment, relying on the gaming environment as a social structure for collaborative storytelling.

Conclusion

The findings presented in this chapter show examples of how data collected using three methods of collection were used to examine gaming environments. A group gaming purpose that emerged after data collection, along with initial findings, then informed analysis of data from all three collection methods. Each research question was informed mainly by an analysis of data from a particular phase of data collection. Content analysis provided a deeper understanding of themes that illustrate a gaming environment, particularly framing and interaction patterns. Thematic analysis of group observation data provided evidence of group formation and dynamics that help understand qualities of a particular gaming environment. Analysis of interview data deepened an understanding of leadership in this gaming environment. The significance of these findings and understanding the gaming environment are discussed in Chapter Five Discussion.

CHAPTER FIVE

DISCUSSION

Several lines of inquiry guided the process of learning from the analyses performed in this study. The conceptual model of gaming environments created for this study is an exploratory model for understanding gaming environments. Inquiring about gaming environments in this study will further inform the conceptual model, enhance mindsets about gaming, and be applied for leadership development.

Findings indicated that the gaming environment was a psychologically layered container which depended on the use of authority in leader-member relationships and utilized framing and storytelling processes for containing emotions. The observation of group processes demonstrated in this study is used to inquire about group dynamics in a gaming environment. By including leadership in this inquiry, opportunities can be identified for the design and application of TRPGs for leadership development. These lines of inquiry generate directions for future research, practice, and rethinking previous conceptions of related topics like framing, escapism, and holding. This discussion is based on findings about a specific group. Comments are not generalizations as much as they are offers to learn from this research and attempt to apply this knowledge in other settings.

This chapter highlights findings that fuel learning about gaming environments and their potential for leadership development. Potential theoretical and practical implications are discussed below. Key findings in this study included frame merging, a group gaming purpose, leader-member exchange being connected to a holding environment, and storytelling containment.

Frame Merging

Conceptually, the gaming environment can be thought of as layered frames of psychological experience constructed by the group. This study revealed that the boundaries between frames were not necessarily discrete and are sometimes merged on a group level. Switching between frames is important and observations of merging frames is even more intriguing. Noting the existence of multiple frames, including frames specific to TRPGs (such as an imaginary environment or character vs player) is useful. Speculating a specific structure and list of frames is not as useful given the fluidic nature of frame merging and boundary regions across individual experiences. Gaming environments are instead best informed by analyzing how frames are used in group processes to construct and interact within the group environment.

Frame merging is interesting for several reasons. First, it adds to current theories about frames of experience and switching between frames in TRPGs. Realizing that players are capable of expressing and experiencing multiple frames in the same moment adds nuance to our understanding of gaming experiences. This also creates a dynamic element in theorizing the psychological structure of gaming environments. Frame merging implies that frames need not be discrete all the time and can fluctuate within regions that overlap with each other and are connected throughout an experience. Constructing frames as regions that overlap, co-exist, and can merge with each other lends our understanding of psychological experience to the idea of parallel process.

Parallel process is understood as operating multiple psychological levels parallel to each other within an experience. An individual may be having an experience that is also unfolding on a group level and potentially again at a systems level. There is the

possibility that something is being expressed in a game that is happening at multiple levels within an individual (potentially even unconsciously), within a group playing a game, and even reflected in how the group is playing. Framing can be used to facilitate parallel processes. For example, the creative process of forming a shared imagination in this study was also facilitating the group formation process among participants and enhancing psychological safety. This was a parallel process within a game frame (narrative) and a person/group frame. The players perception of psychological safety depended on their understanding that the activity was a game but yielded group level outcomes by enhancing psychological safety through the process of creating something together. Realizing that collaborative creativity is a useful strategy for group formation has potential for application in other group contexts.

The construction of gaming frames involves creative processes and then lends creative processes to the formation of the group as well. Game frames are concrete and can be used to activate group processes on other levels. Analyzing group interaction patterns revealed another parallel process involving game frames when the group reacted to failure. The failure response pattern is common while playing a TRPG and depends on game frames to give purpose to failure. In a TRPG, failure is used to enhance the game and tell a compelling story. It is also part of a learning process inherent in playing a game. Embracing failure and then also using it for storytelling is important for psychological safety and habituating a growth mindset. Additionally, gaming frames are particularly conducive for meaning making through game processes like role-play, displacement, and identification. This knowledge could be used to design experiences that initiate leadership processes using facilitated gaming.

Players made meaning of their experience as if the game was distinct from the group. This allowed them to compartmentalize their experience and separate their conscious self from what happened in-game, in their minds. Separation is helpful for providing psychological safety and making game processes into concrete experiences that can be subjected to conscious reflection. This also afforded players with agency to construct their roles within the group in new ways compared to roles they have in other areas of life. However, the realization that frames are merging and not as discrete as the players reported could hold potential for transformational learning. Becoming more aware of the roles one takes in-game and translating game experience to broader understandings of self and role in other areas of life is an exciting prospect for leadership development. Common gaming themes may gain a deeper meaning with an awareness of frame merging. For example, immersion and bleed can be recognized as complex in addition to being neutral. For instance, a player may perceive conflict bleeding in or out of game as uncomfortable and be curious about this stimulus to gain a deeper understanding of events in the game and dynamics in the group. This kind of enhanced understanding of the game experience may help players deepen their own understanding of themselves, their experience, and the group. Becoming aware of deeper levels within one's self or a group experience is a rich form of development.

Individuals can deepen their own understanding of their experience and shed light on unseen elements of themselves through relatedness and the recognition of parallel processes. To do this, players need to be guided in how to recognize that parallel, unconscious, and group processes are in fact connected. Frame merging is not ubiquitous in theories about TRPGs and gamers clearly disconnect in-game and out-of-game

experience when reporting about a gaming experience (Conslavo, 2009). Introducing an awareness of frame merging and group context into gaming experiences could enhance both facilitation and transformational learning potential that exists but is often left underutilized. Recognizing parallel processes that exist in gaming environments indicates that group processes are integrated in this experience. Additionally, the process of using unconscious material in development can be a very sensitive experience (becoming aware of blind spots is perilous) and requires a safe and compassionate group environment.

Group Gaming Purpose and Process

Analyzing group dynamics added to understanding this gaming environment and highlighted a group purpose. Gaming processes were also revealed to function as group processes and in this way can be used as, or to inform, strategies for creative group work. The group gaming purpose that emerged in this study was to progress a game story. This purpose was manifested in the tasks of playing *D&D 5e*. In *D&D 5e*, the game includes tasks such as, finding clues, finishing quests, collecting rewards (gold, experience, and loot), beating monsters, and leveling up. *D&D 5e* also involves storytelling, which was prioritized by both groups in this study (*Critical Role* and group observation). So, the gaming purpose is to play and make progress, which includes both mechanical processes and storytelling. The story includes the narrative being created in the game and the story of the group playing the game. Simply knowing the purpose helps raise awareness of group dynamics in a gaming environment which can enhance the experience and add potential for development. The gaming purpose is subject to the group of people playing so therefore it is also a group purpose.

All groups have a purpose and task, even if they are not clear. Bion (1959) explained that groups have a work purpose and can make progress when performing tasks in service of a work purpose but that groups also have an unconscious survival task that is sometimes at odds with the work purpose. One of the unconscious survival tasks is flight, or escape, which could be enacted as fantasizing that distracts the group. Interestingly, fantasy in TRPGs, more specifically using imagination to create a setting and role-play, is often in service of the gaming purpose. It is possible however, for flight to manifest in gaming groups in other unproductive ways. Players may be preoccupied with their own imagination or power fantasies, for example, rather than forming relatedness with others to create something together. The difference in fantasizing being an act of flight or working towards a gaming purpose is tied to the use of imagination.

Imagination can be used to escape reality and it can be used in creative ways that coincide with reality and are developmental in nature (Vygotsky, 1978; Winnicott, 1989). As a parallel process in this study, creating an imaginary environment collaboratively contributed to group formation and enhanced psychological safety in the group observed for this study. The environment created in that group had a sense of psychological safety that accepted developmental processes like identification while role-playing potentially emotional or intimate experiences. In this case, the imagination was used for creativity rather than escape from reality, showing one way in which “connecting with people to make sense of the actual world is not actually at odds with the notion of escapism” (Cover 2010, p. 121).

The distinction between gaming processes being an escape or having developmental potential is complex. Facilitating TRPGs successfully for leadership

development will require designers, facilitators, and participants to discern how they are linking their imagination to creativity. They should be intentional about facilitating both game and group processes concurrently or using gaming processes as group processes. This underscores the importance of session zero and consent in a gaming group, and leadership development. Many groups overlook or only partially utilize session zero to accomplish group outcomes like formation and container building. In this study, the group did some intentional formation and container building in session zero. This group did not discuss consent but used some consent handling techniques, like check-ins, which were led by the DM.

The first step is realizing that gaming processes are subject to group dynamics and vice versa. Then, structuring and facilitating group processes intentionally in session zero along with other gaming meetings. Gamers can additionally consider formal activities for handling consent such as those outlined by Reynolds and Germain (2019). The groups in this study also demonstrated the importance of inclusive gaming attitudes by prioritizing the creation of a good enough holding environment and focusing on the storytelling components of *D&D 5e*. These styles of play not only allow increasingly diverse participants to join in these activities but also make possible the types of interactions necessary for deep meaning making and development in groups. Facilitators of games and leadership development should pay particular attention to the role of authority in holding given the need for a good enough holding environment.

Leader-Member Holding

Leader-Member Exchange (LMX) is one of the most written about leadership theories (Simriti et al, 2011). The importance and deep understanding of good enough

holding environments is less common in leadership discourse and practice, despite its crucial importance. Recently, scholarship has connected attachment styles to LMX quality and group creativity as discussed in chapter 2 (Fein et al., 2020; Kirrane et al., 2019). This study provided findings that directly link experiences of psychological safety and creativity while playing to good enough holding as a paramount quality of the DM's authority and leader-member relationships.

Authority in a D&D gaming environment is heavily integrated with the role of the DM and in this way is also inseparable from both holding and leader-member exchange. The gaming environment is formed and driven by how the DM uses authority in their role and facilitates creative parallel processes. This began with high quality individual leader-member relationships and developed through group creativity. The creative processes in this study were directly tied to psychological safety in a mutually influential sense. Initial feelings of psychological safety were afforded in the fact that this experience was perceived as 'just a game' and reassured by high quality, good enough, individual relationships with the DM. The group was willing to engage, guided by the DM, in creative process given the initial feeling of holding/psychological safety. Participating in creative processes tested, proved, and developed the group environment along with a greater sense of psychological safety and holding from the group. This created and ensured that the group container was a good enough holding environment. The DM's authority is essential in at least two ways, providing quality individual relationships and as a facilitator of creative processes for the group.

Dependence on authority and strong leader-member relationships are evidence of a holding environment. Strong relationships with authority indicate that holding provided

by authority is necessary. Leader-member exchange is a helpful way to view authority and holding in gaming group dynamics, using a commonly published leadership lens in LMX. High-quality individual relationships, that in particular provided holding, with the authority figure allowed this group to engage in creative processes without deep interpersonal relationships between players. The DM in this study was particularly sensitive to individual needs, style, and forming an experience they could all enjoy together.

The DM is seen as extremely important to the success of D&D experiences and so players view their relationship with the DM as very important. This increases the effect of high-quality relationships on the group and creativity (Lee et al., 2019). After a good enough group environment was formed while enhancing psychological safety, creative group processes (forming shared imagination, role-play, improvising collective creativity, collaborative storytelling) enabled emotional experience and group development. The DM is essential through the authority of their role and facilitating creative group processes. There are strategies that DMs use to accomplish this kind of leadership.

Strategies for DM facilitation

The DM successfully facilitated parallel group process tasks in this group such as guiding psychological safety, creativity, and meaning making processes. Psychological safety, creativity, and meaning making are all useful facilitation goals for leadership development and education. In addition to insight about facilitating gaming processes, educators can learn from the strategies employed by this DM to enhance facilitation of other group processes. Garcia (2016) provided advice for teachers based on personal experience facilitating TRPGs. This study provides evidence that such advice has merit

and shows how DM strategies could serve facilitators when creating learning environments. The DM in this study facilitated the group processes mentioned above through the tasks of playing D&D. Combining the data and analysis in this study with the elements of DM facilitation identified in pilot studies (Lasley 2018a, 2018b) can be offered as advice for group and/or gaming facilitation. The DM facilitation items from pilot studies have been integrated into three categories while being integrated with data from this study: leader-member, group process, and creative reflexivity.

Leader-member. One of the most emphasized elements of DM facilitation in this study was balancing attention among players. This explicitly links DM strategies to leader-member exchange theory. DMs could benefit by understanding how the quality and importance of individual relationships with players impacts the group gaming experience. Likewise, DMs should seek insight from their groups about how differentiation and social comparison may influence their leadership and group dynamics. More specifically learning about each player's style and applying rewards accordingly is essential. Players also depend on the DM as a source of support, helping players learn, and celebrating their success universally. These are all ways the DM can foster quality LMX relationships that provide holding and promote psychological safety.

Group process. Psychological safety is related to group processes, emphasizing the utility of group facilitation and value in paying attention to group process tasks. The way the DM in this study facilitated gameplay contributed to creative processes and was informed by his open approach to group facilitation. A good DM prioritizes aspects of their role accordingly to serve the group rather than exercise selfish authority. The DM in this study applied a collaborative approach to adjudicating rules by allowing players to

give input and being willing to adjust rules in certain situations. The DM was open to feedback and actively sought input from players about game content, rules, decisions, and facilitation. Keeping an awareness of social dynamics and power structures in mind was crucial. DMs may benefit from doing all of these things with group processes and dynamics in mind. The DM, or facilitator, in particular can't afford to ignore parallel game, group, and systemic dynamics, given the importance of their role. DMs can utilize these strategies positively to enhance their own and a group's creativity.

An awareness that unconscious and systemic dynamics impact groups is important for qualified facilitation of developmental experiences in gaming and leadership alike. The group observed in this study was particularly progressive in their world views and brought these aspects of themselves to the gaming environment. This group's commitment to honoring consent, agency, and intersectional identity was an example of a modern playstyle in contrast to stereotypes about D&D players preoccupied with power fantasies. In addition to the DM's role in establishing and facilitating this type of group play, this group's focus on storytelling and inclusion can serve as an example for others aspiring to create meaningful and/or developmental experiences together.

Co-creation. Providing opportunities to be creative was particularly influential for generating psychological safety. The DM was successful by modeling and encouraging creativity from the group while also attending to creative gaming processes as they emerged. This included prompting players to come up with narrative content about the fictional setting in addition to their characters. Further, the DM reinforced a collaborative approach to creativity, consistently incorporating player input and also

presupposing that the individual characters would be connected to each other and that the players were working together to engage in storytelling. Using the narrative to reveal additional creative elements and incorporate improvised content inspired the players further. Doing so provided essential components of the game story to contribute to the group gaming purpose. The DM also used narrative elements to introduce topics like emotional intimacy which provided opportunities for players and the group to develop.

The DM used his authority to provide opportunities for emotional experience as the group developed by introducing intimate topics in the plot. By facilitating gameplay that invited players to improvise reactions to the plot and contribute to how it progressed, the DM involved the players in creating potentially intimate aspects of the gaming environment that could be integrated into parallel group processes. The DM also modeled vulnerability in multiple frames by being transparent about mistakes and engaging in role-play as NPCs. The DM also completed the culmination of collaborative storytelling by integrating individual players' contributions in an epilogue. The capacity for holding in this gaming environment contained meaningful experiences for players as evidenced by the strong consensus that this group had created something together and observations of the group engaging in storytelling processes that contained emotional experiences.

Storytelling Containment

The value of transformational learning depends on whether the group processes and makes meaning of the experience. This is observable in collaborative storytelling, which is a group process that happens in D&D, implicitly at first. The game and story both provide concrete mental models (such as characters) for displacing content. This group was observed incorporating uncomfortable events into the story and implicitly

making meaning of those events and emotions. Importantly, the group observed in this study did not continue to explicitly format a debrief or intentional framework for transformational learning and so they were observed implicitly creating potential for, not completing, a transformation. However, the informal discussions during meetings and in transitions did involve some processing of the game experience. Participating in interviews as part of this research also served as a form of reflection for these participants.

When players improvise with each other and connect story elements, collective creativity can happen. This is one way that gaming can unconsciously contain emotional aspects of the experience for players and the group. While some individual storytelling processes are intentional, improvisation and collective influence provide opportunities for unconscious elements to emerge within the game story. Improvisation adds a potential for collective creativity as interactions involving multiple individuals happen in an instant. Improvising can be seen as part of playing the game, but it also draws on free association from many aspects of a group or person's life. As unseen elements of the group's or individuals' unconscious become apparent, they are experienced in the game and have potential to be reflected upon, but only if the participants intentionally act to facilitate integration.

Debriefing the story, improvised events, emotions, bleed, and emergent elements of the experience can be utilized for transformative and experiential learning. Integrating the impact of a gaming experience into new awareness involves creating an intentional framework for transitioning between game frames and other life experiences (Bowman & Hugaas, 2019). Collaborative storytelling and role-playing are exciting forms of meaning

making that begin as an implicit group process and should be accompanied by intentional debriefing when incorporated in leadership development activities.

Recommendations

Tabletop role-playing games hold tremendous potential for experiential learning and are a unique mode of social interaction. They provide opportunities to go beyond game-based learning to draw from group dynamics in a gaming environment and utilize creative meaning making processes. Leadership development activities should be designed to apply the aspects of gaming environments highlighted in this research. Facilitators can learn from successful strategies used by DMs in this study and attempt to leverage creative parallel processes towards group outcomes in leadership contexts. More specifically, TRPGs should be designed and used as leadership development activities.

Further research is needed to continue examining gaming environments and aspects of TRPGs related to leadership. Action research should be conducted in which participants share some understanding about group dynamics and psychological holding while intentionally playing and debriefing role-playing experiences together and having a goal oriented toward development in some way. For example, a group could be assembled to conduct action research by playing a TRPG together while integrating components of adaptive leadership like protection, order and direction as subjects for experiential learning into their design, facilitation, and debriefing strategies.

Action research is a particularly interesting direction for future inquiry given the reciprocal relationships within developmental TRPGs and leadership. In addition to adaptive leadership, Transforming Leadership (Burns, 2003) should also be integrated in TRPG action research and leadership development designs. Transforming leadership

focuses on ways leaders can evolve from transactional brokers, or players, into agents of social change, or designers of social interaction systems. A TRPG group could engage intentionally in their own experience to learn about becoming both players and designers of their own interactive gaming experience and the social systems involved.

Conclusion

This has been an exploratory examination of gaming environments. Unique and promising aspects of TRPGs provided fertile subjects for inquiry about gaming, leadership, group dynamics, and meaning making. The conceptual model and findings presented here can be used by scholars and practitioners alike to inform future efforts. Hopefully as we continue learning through reflection in action, collective creativity and leadership will be enhanced, enabling us to transform ourselves and our world. Thanks for playing.

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APPENDIX A

Topical Interview Guide

The interview is intended to follow this basic format to gather information about the person and their experience with the gaming group. Scripts are not written to allow the interviewer to flow with the conversation in a natural manner and probe into the narrative being offered as it relates to the main topics of the study without being tempted to read off a page. A few key sample questions/statements are provided (in bold) to assist in guiding the conversation if needed.

Introduction

Welcome and thank participant for volunteering

Overview of interview/study and consent/confidentiality referring to consent form.

Ask if the participant has any questions

Background: I'd like to start by learning a little bit about you. How do you describe yourself?

Highlight common ground between the researcher and participant to build rapport

Demographics of the participant such as occupation, brief surface level personal history.

History with games, particularly role-playing games

What was your previous experience with D&D?

Gaming Environment

How would you describe this D&D group?

What specific aspects of this group do you think were influencing how you play?

How do you explain this impact?

Talk about each session and how the group and players have developed

A sense of continuing development in the group?

What were your previous relationships with the other participants?

Describe how the dm/other players sets the stage

Open to feedback, balanced attention, rewards, committed to role-playing

Ask about specific interaction patterns and defining events from the analysis of group observations. Thuriel Drug Testing Scene and Death Scene

Psychological Safety and Group Creativity Survey

Ask the participant to respond to survey items verbally

Conclusion

Express appreciation for the participant's willingness to share and admiration for their story.

Ask if the participant has any questions

Thank the participant again and say goodbye

APPENDIX B

THURIBEL SCENE TRANSCRIPT

[The players are trying to discover properties of a liquid that was found in a thuribel during their adventure. They identified some NPC volunteers to try the concoction and see what happened to them.]

DM: so how much of this are you giving to these people. You don't have that much

Player 3: I was thinking about a third

DM: a third total split three ways?

Player 3: Oh no no we're gonna do the steam method we're gonna lock him in a closet

[gasp and nervous laughter]

New Player: we're gonna gas them?

Player 3: I don't think it, its probably; [nervous laughter] I'm really not assuming that this is gonna be lethal

Player 1: This feels criminal

New Player: so we're doing this at your boarding house? [nervous laughter]

Player 3: okay maybe we should, you know cuz I think drinking it, that sounds like such a bad idea

New Player: so we are aerosolizing it?

Player 3: okay yeah let's do like a drop just like on the, just on the table and see what it does and like light it on fire. just does like, let's just start with that

Player 1: Make sure we're not gonna be gassing these people.

Player 3: yeah 'cause I don't wanna kill these, even though we're paying them

DM: so you take this drop of the solution and you drop it on the table and what it does is it almost sort of coagulates like it takes on a semi-solid sort of colloidal form where it's almost like mercury when you drop it down

Player 3: right kind of like firms up

DM: yeah so it like there's a second where it spreads out and then it firms into like this little bead

New Player: flubber

[laughter]

Player 3: o god, no. Ok, so good thing that they didn't drink it. So what happens? how does it react to heat? Phosphorus match.

DM: so, you apply heat to it and it basically puffs into a small cloud so it disperses outward and then like rises up. there's a sort of a strange bitter earthy smell to the whole affair

Player 3: okay I waft it a little bit, a little streaming 's'

DM: so this is not going to be something that causes you any damage but go ahead and give me a DC thirteen constitution saving throw

[Player 3 rolls die]

Player 3: uh, unnatural 20

DM: okay so what happens is you can sort of feel there's a moment where your pupils begin to dilate

Player 3: uh o

New Player: get hiiiigh [chuckles]

DM: and then it seems to pass rather quickly like there's a moment where your senses seem to be a little bit incoherent but it's almost like just a single second and then things correct themselves like whatever it was whatever the effect of this thing was didn't fully grip you

Player 3: okay I'd like to adjust the plan. we only need the street performer [laughter]

Player 3: and I want to do about let's just say an eighth of the vial and I just want to like kind of have him be in that cloud for a little bit and see how he reacts

New Player: you put in like a bowl, kind of towel over his head?

Player 3: that's a good idea, yeah

[Player 1 laughs]

New Player: Never gotten high before [laughter]

DM: no never

Player 3: no like that's how you open your pores for

New Player: yeah

DM: yeah

New Player: sauna [gestures waving air into their face]

DM: yeah, it's great for the skin. toad juice

New Player: toad spit [laughter]

Player 3: then yeah this is probably like yeah in a closet and in a boarding house just cleared out throw him in

DM: so there's a few moments of the street performer sort of sitting with their head over the bowl and they look up from the bowl after it's sort of like takes its full effect and they look around and their eyes have sort of taken on that sort of like rectangular sort of

Player 3: o no

DM: toad look

New Player: nooooo [laughs]

[the scene continued, and the DM described the effects of the potion that provided some clues to the players about their quest]

APPENDIX C

CHARACTER DEATH SCENE

The character death scene happened during combat with the final boss monster.
[Player 3's character] takes a large amount of damage that reduces him to zero hit points.

DM: so [Player 3's character] gets blasted

New Player: O, nooooo!

Player 1: [whispers] Jesus Christ

DM: and the acid sort of overwhelms you

Player 3: Can I say that it pushes me into the pool

Player 1: [laughs]

Player 3: Or would that make it a whole lot worse

DM: no, ah, so which pool do you want to go to? Do you wanna fall into the water or the goo

Player 3: I'm lookin at that goo

New Player: ewwww!

DM: so you fall into the goo. go ahead and make a DC 15 constitution save

Player 1: [chuckles]

Player 3: [rolls die] 4

DM: you're just poisoned no it's not like being unconscious, you're just poisoned and a saving throw will end it once you're awake

Player 3: okay, that's probably disadvantage on my death save right? Cuz I'm continuously taking damage in the pool?

DM: uh, if that is how you would like to implement this, then yes

Player 3: yea, I'm good with that. My characters just rarely die, so

DM: okay yeah all right

Player 3: I'm down for that, if it happens

DM: then it still has 30 ft of movement [moves final boss monster token on battle map]

New Player: O my god, ruthless

Combat continued and on Player 3's next turn the rules indicated that he must roll a die (called a death saving throw) to see if his unconscious character moved closer to death or closer to waking up. This roll had higher chances of failure due to the poison effect he elected to endure. Player 3 failed the death saving throw, moving his character closer to death (3 failures results in permanent death). The New Player used their turn to try and save Player 3's character, making progress but not succeeding on the same turn. On Player 3's next turn, another death saving throw was in order:

DM: it's [Player 3's character]'s turn

Player 1: He pops back up and burns us both alive please

Player 3: [rolls die] uh, ooo, does a nat 1 mean anything?

Player 1: yeah, it's two failures I think

New Player: [loud inhale]

DM: [head in hands facing down]

Player 3: I think I just died. [laughing, covering mouth with hand, turning red] is everyone ok with that?

New Player: noo! I'm mourning my friend

Player 3: I swear this never happens, it's so embarrassing

DM: I mean that is 100% why I checked in with you I'm like do you want it like do you want death to be on the table that much?

New Player: [sqeee]

Player 3: guess I should've checked if everyone else wanted [covers mouth, inaudible]

[laughter]

DM: I guess this is a decent time to check in. Is everyone okay with the repercussions of this fight to save the city being that [Player 3's character] doesn't make it?

New Player: [sad] no

Player 3: I would like it if I had some sort of final action of some kind

DM: It sounds like [New Player] isn't entirely on board with the death

New Player: I mean, no, just want to play this dumb song

Player 3: I'm okay with having it just be one more failed save

DM: yeah let's take it one more fail and then there's some sort of significant, like as we move into epilogue stage when we get there

New Player: [chuckles]

DM: I imagine that there will be some sort of long-lasting effect from this

Player 3: yeah, we'll see how, what brought him back from the brink, providing I don't actually die in the next one

New Player: you'd just disintegrate 'cause you're covered in acid

Player 3: who knows, maybe I'll rise up to heavens

DM: that is your turn. we roll back to the top of the round at which point [New Player's character] you are able to make a medicine check

New Player: ooo

DM: to stabilize [Player 3's character] as you are singing

New Player: Let's do it I'm singing and multitasking trying to do a medicine check

DM: so that is a d20 plus whatever your medicine is

New Player: my medicine is a 3

DM: you just need to beat a 10

New Player: [rolls die, and the result was a 1]

Player 3: [looks at die, covers mouth, makes a high-pitched noise]

[nervous laughter and chuckles from everyone]

New Player: I'm sorry, I, you know

Player 3: this is fate

Player 1: [high pitched laughing] [Player 3's character] is dead, o my god

DM: so yeah

New Player: RIP, I'm, yeah, that's sad

DM yeah I'm of two minds cuz I was

New Player: hehehe

DM: They had something in mind if you made that check considering all the magic that is like filling the zone now from the singing so I guess I'll check in. How much like contrivance are you willing to go for here? are you willing for this to like step in and effect [Player 3's character] or was two 1's in a row just two 1's in a row and sometimes you got to take the 'L' like, I am, I'm okay, I want to check in with you all, I'll be tran, I'll just be transparent, like, we can let, we can let the game play as it laid or we can say that [New Player's character] has been pumping so much magic into this entire area through song which is ostensibly healing and revitalizing for at least the incredibly sad Scheherazade (NPC) that it could have an effect

[pause]

Player 3: those two 1's in a row though like

New Player: its very damning

Player 3: it really doesn't feel like it's meant to be

DM: okay

Player 1: I feel like it's on [Player 3] it's your final decision if you want it to be or not

Player 3: I'm just kind of worried about what happens with the rest of the fight in terms of everybody else

Player 1: clearly now I get burned alive and [New Player's character] walks out of here alone just like [inaudible]

New Player: [making crying sound]

DM: I don't think [New Player's character] has taken any damage yet

Player 1: curse this stomach, everyone told us, yeah, I'm the only one that ever came back from the stomach

[laughter]

DM: turns out those stories maybe have some credence to them

New Player: [laughs]

Player 3: I would be satisfied with a death of like creating first a flame just like one flame that, I don't know, like maybe put a crossbow bolt or something, and into the oil

DM: yeah sure so yeah give us a little bit of that as so [New Player's character] has taken you out of the toxic pool they've wrapped their hands and put gloves on so that they don't vampirically destroy you and they are fumbling around in like this noxious misty dark trying to patch you up and it's just not happening

Player 1: a small song appears

Player 3: yeah so I think like [Player 3's character] like feels his lungs basically being filled with poison in addition to the hot steam and stuff that got breathed on him twice and so yeah I think like with his just dying vision he does see and feel the warmth in the light of this song, even though he hasn't seen it, o that's so sad, and it's not a setting sun it's like full like burning bright in the sky zenith. and then I guess yeah I think like his fist uncurls and there's just like this like flame inside of it and it's a burning flame and it's a healing flame it needs to heal a little bit please and yeah it's like a life energy I guess

DM: okay and when you say healing, healing in what sense? you just

Player 3: healing in that it heals people around for a little bit maybe yeah and it's also real fire that lights oil on fire

[laughter]

[DM creates a series of dice mechanics to play out Player 3's suggested final action in the game, defeating the final boss monster. The players play out this final action and narrate the conclusion of the battle and climax of the game]

Date: 4-13-2020

IRB #: IRB-2019-452

Title: Examining Gaming Environments in Dungeons & Dragons

Creation Date: 5-21-2019

End Date: 6-4-2020

Status: Approved

Principal Investigator: joseph lasley

Review Board: USD IRB

Sponsor:

Study History

Submission Type	Initial	Review Type	Expedited	Decision	Approved
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