International Journal of Role-Playing

The aim of the *International Journal of Role-Playing* is to act as a hybrid knowledge network, bringing together the varied interests in role-playing from its associated knowledge networks, e.g. academic research, games, creative industries, the arts, and role-playing communities.

Editorial Special Issue: Role-playing and Simulation in Education

This special issue contains nine articles chosen from amongst those presented at the Role-playing and Simulation in Education Conference at Texas State University in Round Rock, Texas, May 19, 2016.

Sarah Lynne Bowman 3-6

We Need to Talk: A Literature Review of Debrief

This literature review consults the diverse academic definitions of debriefing to give context to larp debriefs. Simulation learning and psychological debriefing are explored to show lessons and precedents.

Brodie Atwater

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Enhancing Healthcare Simulations and Beyond: Immersion Theory and Practice

This paper applies six major categories of immersion theory to health care simulation: immersion into activity, game, environment, narrative, character, and community.

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Scaffolding Role-Playing: An Analysis of Interactions with Non Role-players of All Ages

This article explores the relationship between nature and culture during a series of scaffolded larp activities designed as part of a STEAM summer program for indigenous youth.

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Arts-Based Inquiry with Art Educators through American Freeform

Summarizing dissertation research, this article focuses on the creation of a community of play formed with professional and preservice art educators by using a series of American freeform games.

Jason Cox

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Physical Presence in Simulation: A Scratch at the Surface of Complexity

This article examines the impact of physical presence on simulation and educational gaming. This meta-review of existing research reveals central issues involved in deploying physical simulations.

J. Tuomas Harviainen 32-38

Playing Political Science: Leveraging Game Design in the Post-Secondary Classroom

This paper describes the first implementation of gamification and gamebased learning in a Political Science classroom at the post-secondary level based upon Sheldon and Bartle.

Mikael Hellström 39-45

Simulation and Character Ownership in Secondary Dramatic Literature Education

This case study examines the effectiveness of incorporating role-playing techniques into a high school classroom in order to improve student's mastery of the themes and structure of an American play.

Josh T. Jordan 46-50

One Way to Create Educational Games

Improv games, which are used to train actors in how to do improvisational theatre, may be used to train other professions as well. The games assist in the development of simple skills and also give context for the skills' use.

Graham MacLean 51-54

Teaching German Literature Through Larp: A Proposition

Games can be used to interpret literature in comparable ways to an analytic essay. This article discusses two nano-games based on German literature developed by University of Cincinnati students.

Evan Torner 55-59

Editorial

Special Issue: Role-Playing and Simulation in Education

Welcome to Issue 6 of the *International Journal of Role-Playing*.

This issue focuses on one of the more important topics in the field of role-play studies: educational role-playing, or edu-larp. Edu-larp is closely aligned with other forms of experiential learning, including simulation, drama in education, psychodrama, improvisation, game-based learning, etc. (Mochocki 2014; Bowman, 2014; Bowman and Standiford, 2015). Indeed, learning through role-taking and playing scenarios is an instinctive part of the human experience, as evidence by our proclivity toward pretend play (Bowman 2010). Although not all play is productive (Stenros, 2015), using games and role-playing as a means of instruction holds a tremendous amount of potential to increase engagement and motivation.

Along these lines, interest in educational roleplaying has increased dramatically in the last several decades, from practitioners to researchers (cf. Simulation & Gaming; Henriksen, 2004, 2006, 2008; Andresen, 2012; Bowman, 2014; Simkins 2015). Edularp, which evolved from leisure role-playing as a form of experiential learning, is expanding rapidly as a supplemental teaching method in classrooms and other learning spaces. Edu-larp is even the primary teaching method at the Danish boarding school Østerskov Efterskole, which is celebrating its tenth successful year of operation in 2016. Due to this increased interest in the method, several official conferences have emerged to discuss the practical and academic aspects of edu-larp, including the Role-playing in Games Seminar (2012) in Finland, the Living Games Conference (2014) in New York, the Edu-larp Sweden Conference (2014) in Gothenburg, the Edu-larp CPH conference (2015) in Denmark, and the Edularp Conference (2016) in Finland. This classroom (2015), as she is an accomplished researcher and practitioner who straddles both the simulation and larp worlds (Standiford 2014). Standiford teaches clinical and psychiatric nursing at the St. David's School of Nursing at Texas State University, which offers students an elaborate simulation lab, complete with a mock hospital, clinic rooms, and sim dolls. Texas State had consulted with both edu-larp specialist Aaron Vanek and myself for assistance with integrating larp techniques into their simulations in the last few years. I have also volunteered for them as both a simulated patient and doctor for several semesters. Therefore, this location served as an excellent space to hold the conference, which took place on May 19, 2016, with much support from the faculty and staff of the School of Nursing.

The results of this event were twenty-two exceptional presentations on the theoretical and practical applications of experiential learning from a variety of perspectives: Simulation and Health Care; Humanities; Natural and Political Sciences; Sociology, Psychology, and Therapy; Business and Other Professional Applications; and Youth Outreach. These presentations are all available in their entirety on the Role-playing in Simulation in Education Hub (2016) hosted on the Living Games website, including videos of each talk and their accompanying Powerpoint presentations. In conjunction with the conference, we invited participants to submit short papers on their topics, which underwent peer review. Thus, this sixth issue of the International Journal of Role-playing features a selection of nine papers resulting from this work, coedited by Evan Torner and me.

As the conference was hosted by a department specializing in simulation, we invited J. Tuomas Harviainen to deliver a keynote bridging the gap between simulation and larp entitled "Physical Presence in Simulation: A Scratch at the Surface of Complexity." His accompanying paper provides a meta-review of the existing literature on presence, simulation, and larp, discussing the importance of careful attention to the components of physicality, briefings, and debriefings in the successful deployment of these interventions.

In a similar vein, in "Enhancing Healthcare Simulations and Beyond: Immersion Theory and Practice," Standiford and I reviewed the literature around the contested topic of immersion. We synthesized this information into six major categories similar to those developed by Gordon Calleja (2011): immersion into activity, game, environment, narrative, character, and community. Standiford and I then applied these categories to health care simulations, analyzing how effectively existing exercises engage students on each of these levels and identifying areas for improvement.

Transitioning to the more expansive category of the Humanities, this issue offers four excellent papers on the application of edu-larp. In "Arts-Based Inquiry with Art Educators through American Freeform," Jason Cox offers a summary of his dissertation project, which involved developing and deploying original freeform scenarios as training tools in higher education pedagogy. Evan Torner's "Teaching German Literature through Larp: A Proposition" also explores edu-larp in the higher education classroom, but takes a different approach. In this paper, Torner explains how he incentivized college students to develop freeform scenarios by adapting classic German literature texts.

Similarly, others presenters focused upon the use of larp, simulation, and improvisational techniques as a way to stimulate student interest in learning. Josh T. Jordan's "Simulation and Character Ownership in Secondary Dramatic Literature Education" discusses utilizing larp and simulation techniques to help high school students more deeply connect with characters in classical theatre texts. While Jordan's work emphasizes scripted materials, Graham MacLean's "One Way to Create Educational Games" explores the use of improvisational theatre methods in the classroom as an innovative way to build upon the existing skills students possess through the use of spontaneous creativity.

In contrast, the last three papers focus on more scientific content within edu-larps, as well as the application of social science theories. Brodie Atwater's "We Need to Talk: A Literature Review of Debrief" presents an overview of the concept of debriefing in various contexts, including simulation, clinical psychology, and larp. This work untangles the various definitions of the term, working to clarify the importance of properly deployed debriefing in each of these fields, with an emphasis on the unique purpose behind the larp debrief.

With an eye more toward practice, Mikael Hellström's, "Playing Political Science: Leveraging Game Design in the Post-Secondary Classroom" explains how the author applied gamification and game-based learning strategies garnered from role-playing theory to the higher education political science classroom. Finally, Gabriel de los Angeles' "Scaffolding Role Playing: An Analysis of Role-playing Interactions with Non Role-players of All Ages" describes the application of educational psychology and larp theory to edularps designed for indigenous children to increase engagement with science and the arts. These exercises work to provide an experiential method of connecting ecological knowledge with indigenous tradition and inter-generational community building.

One of our major goals for the conference was to make the various theories and practices around edu-larp accessible to the larger community. We also hoped to bridge the gap between edu-larp and other sibling practices in order to share insights between related fields. We hope that these papers and the accompanying video documentation of the presentations will help inspire others to begin or advance their own work in this growing, fascinating field of pedagogy.

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We Need to Talk: A Literature Review of Debrief

Popular abstract: This literature review consults the diverse academic definitions of debriefing to give context to larp debriefs. Among the many concepts for debriefing, simulation learning and psychological debriefing are explored to show lessons and precedents. Simulation debriefs emphasize learning and a transition from the affective to the cognitive, which can inform how larp debriefs engage with content. The concepts of fidelity and authenticity, along with tripartite learning within simulations, are invoked to show similarities and potential growth for larp debriefs. Psychological debriefing has mixed results, but reviewing the literature shows that psychological debrief practice within research has been functionally dissimilar to larp debrief. Discourse already surrounding psychological debrief has questioned the research methods and results of previous studies, making generalization to larp debriefs inappropriate. Larp-specific debriefs are considered non-therapeutic transitional tools for moving between perspectives and reinstalling the social reality suspended during play. Its counterpart, workshopping, is considered important to creating the necessary context for debriefing. Larp debriefs have the potential to become a vector for the therapeutic work through larping. The article advocates for responsible content creation despite using debrief as a transitional tool, as no evidence suggests that debriefing makes larping safer.

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1. INTRODUCTION

This paper is a review of contemporary literature on debriefing, a reflective practice that follows liveaction roleplay (larp). Its methods, purpose, and even effectiveness have become topics of concern among those interested in progressing the discipline of live-action into one that produces intense content and leaves its participants unharmed. Discourse on debriefing extends beyond larp. Its foundational theories exist in psychodrama (Browne 2005), disaster intervention (O'Brien, Mill, Fraser, and Anderssen 2011), simulation learning (Garris, Ahlers, Driskell 2002), trauma recovery (Littleton and Breitkopf 2006), group therapy (Yalom and Leszcz 2005), play therapy (Higgins-Klein 2013), psychology research (Human Sciences Research Council 1997), and military operations (Adler, Castro, and McGurk 2009). Psychological debriefing and simulation literature hold specific insights. The sources reviewed in this work span several fields of study in order to clarify the terms, form, and purpose of debriefing in larp.

2. RESOURCES CONSULTED

Collecting resources for this review included online larp publications, like the Nordiclarp.org website and larp theorists' personal websites, as well as the works of larp scholars included in the catalog of Knutepunkt and *WyrdCon Companion Book* literature. Research extended to the EBSCO and JSTOR databases for relevant works on debrief, role-play, psychological first aid, trauma processing, psychodrama, and simulation. Though lessons exist in all literature within the scope of the search, the inclusion criteria sought practices that create a period of review, reflection, and processing immediately following an

event in order to focus on the precedents and prospects of established larp debriefing procedure. The literature reviewed is English-only and fruitful resources in other languages may have been excluded.

3. DIVERSE DEFINITIONS

Peripheral literature concerns debriefing as a tool with diverse intentions. Singularly, debrief is a period of clarification following a complex event. Its various incarnations are used to consolidate learning, reflect on automatic thinking, express emotions, address behavioral patterns, identify consequences, share social reality, reduce psychological symptoms, build community, and reinstate a previously-suspended social reality.

Relevant fields of study begin with Jacob Moreno. Moreno has been recognized in larp studies as creating the term "role-playing" (Fatland 2014). His methods of psychodrama and sociodrama are ritual practices of spontaneous interaction that are incomplete without facilitated reflection on the origins and outcomes of events within the ritual (Browne 2005). Sociodrama specifically addresses how the reality contextualizing a sociodramatic ritual can be changed from the lessons articulated through role-play. Larp stands to take influence from the simulated social realities of sociodrama. Acknowledging the integrated reflection of Moreno's toolkit, in which a conventional sense of reality is reimposed and lessons are forged in review, shows the precedent for debrief within role-play.

Simulation learning, like Moreno's work, imposes a temporary reality to inspire authentic reactions. These spaces can recreate events unsafe or uncommon, like disaster scenarios or medical emergencies, in order to practice critical behaviors and induce situational learning. Debriefing is foundational to simulation learning as a period of information construction (Garris, Ahlers, and Driskell 2002). Facilitated debriefs bring an expert opinion to participant experiences in order to evaluate reactions; address inconsistencies between the simulated diegesis and larger reality; and create expectations for situations outside of a classroom (Dreifurst 2009).

Critical incident stress management (CISM) uses a debriefing practice following simulated catastrophic events to share information, identify support, normalize reactions, and screen individuals at risk of psychological trauma (O'Brien, Mill, Fraser, and Anderssen 2009). Psychological first aid is a practice developed from WWII military debriefing procedures that the American Red Cross uses to address victims of natural disasters (Snider, Van Ommeren, and Schafer 2011). Group and play therapies, which rely on spontaneous enactment to analyze behavior, use reflection techniques outside of spontaneous content in order to address patterns (Higgins-Klein 2013; Yalom and Leszcz 2005). Psychological experiments use debriefing techniques to disclose the intention of a research scenario and return subjects to a state of comfort and trust (Human Sciences Research Council 1997). These procedures offer precedents to current debrief techniques, alternatives for developing larp-specific debriefing, and critical literature on the effectiveness and purpose of debriefing a period of liminal disruption.

4. RELEVANCE TO SIMULATION DEBRIEF

Simulation debriefing is similar to larp debriefs in form, although has the purpose of constructive learning rather than affective processing. Simulation learning aims to recreate a situation that feels real to the participant. These situations have reduced consequences compared to non-simulated events, allowing the learner to see the effects of their actions and engage a scenario with literal thinking and presence. The tripartite domains of learning featured in simulation learning — cognitive, affective, and psychomotor — are both integral to Moreno's work and substantiated in larp research (Sternberg & Garcia 2000; Bowman 2013a).

Two concepts exist in simulation literature that are beneficial for larp discourse. *Fidelity* is a feature of simulations meant to mirror a real-world setting (Standiford 2014). The degree of fidelity a simulation

has is a reflection of the literal scenario it mirrors, with greater fidelity meaning a more lifelike enactment. For example, in a firefighting demonstration, actual fire would be a high fidelity element. Complementing fidelity is *authenticity*, the discussed feeling on the part of the participant that the situation is real. Nursing scenarios that use actors for patients have the aim of authentic feeling.

Simulation debriefing reviews the automatic enactment of participants in order to create experiential learning. Kolb's theory of knowledge states that it emerges from doing an action, reflecting on the action, creating an idea about how it happened, and then testing the idea against diverse conditions (Kolb & Whishaw 2014). Conceptually, reflection encourages self-correction, objective feedback, genealogies of automatic thought, and correlation with theory (Dreifuerst 2009). Dreifuerst attributes these six phases to the model educational debrief:

- The procedure and rules of the debrief are acknowledged outright;
- Discussion begins with open-ended questions about participants' emotions;
- Discussion turns to questions about quality and improvement;
- Individual events are reviewed with a conceptual framework;
- Participants are presented with a summary of key points;
- A hypothetical scenario with different premises is presented to anticipate new challenges and test learned material. (2009)

Simulation debrief procedure is mediated by an expert teacher. The simulation is prefaced with learning goals. Reflection in simulation is coached by the facilitator to yield learning in three steps: awareness, critical analysis, and then a new perspective. This procedure is constructivist, as knowledge is constructed by an individual as they learn. Creating knowledge is achieved through framing, an attribution of knowledge to information. Executive thinking, as an aspect of dual-process theory, contextualizes behavior and encourages corrective action following from the stimulation that engages automatic thinking (Baimel, Severson, Baron and Birch 2015). Simulation debriefing creates the safety and separation to think on the actions one has taken in order to anticipate later reactions.

5. SIMILARITY TO PSYCHOLOGICAL DEBRIEF

Psychological debriefing and practices sharing similar effects hold expectations between educational and emotional review. Largely, research findings on emotionally-focused debriefing have not shown it positively. Bastos, Furuta, Small, McKenzie-McHarg, and Bick's study of postpartum debriefing (2015) have shown no evidence for or against the practice. Alexander, Bannister, Bisson, and Jenkins' 1997 study results showed that individual debriefing for burn victims lead to poorer outcomes. Rose, Bisson, Churchill, and Wessely (2009) also showed results that individual debriefing with trauma victims within a month of exposure lead to poorer resilience for PTSD.

The burn victim study is often held as an example of improper procedure, as the latency of treatment was greater than traditional debriefing and the treatment was conducted individually (Tuckey 2007). Adler, Castro, and McGurk (2009) claim that poorly conducted studies have skewed the perceived effectiveness of psychological debrief and halted practice due to cautious obligation against potential harm. Small-sample studies have sustained psychological debriefing as standard practice in the American military (Adler, Castro, and McGurk 2009). Tuckey cites this contention and advocates for reformed debrief research methods (2007). The discourse places psychological debriefing and similar practices, like psychological first aid, seeming at a standstill for research. Efficacy research is uncommon due to the associated risks, although debriefing is still practiced due to peer-reviewed expert advocacy (Tuckey 2007; Snider, Van Ommeren, and Schafer 2011).

The observed negative effects of psychological debriefing are not appropriate for generalizing to larp debriefing. The studies involving Bisson (Alexander, Bisson, Bannister, and Jenkins 1997; Rose, Bisson, Churchill and Wessely 2002) are respectively a study with burn victims and a literature review. These are the studies that show a harmful potential to debriefing. Both concern individual debriefing processed in the days after a traumatic event. This is unlike larp debrief, which takes places in a group immediately following an enactment. Larp debrief more closely resembles group therapy, an effective practice with a precedent for peer leadership (Yalom & Leszcz 2005), than the debriefing techniques analyzed in these studies. Torner and Bowman suggest that the events within role-play are more likely triggering previous traumatic experiences rather than creating fresh trauma (2014).

6. DEBRIEFING IN LARP

Larping is primarily concerned with players' feelings (Burns 2014). Larp debrief shares this focus. Aligned with tripartite domains of learning, larp combines cognitive skills (maintaining diegetic reality) with psychomotor capabilities (individual embodiment) in order to elicit affective engagement (Bowman 2014b). Dual-process theory considers the first to be an executive skill and the second and third to be automatic, intuitive processes (Baimel, Severson, Baron, and Birch 2015). The executive maintains a coherent narrative of a fictional world while automatic processes engage with sensory material. Though subject to critique, these theoretical models offer an explanation of how a larp scenario can result in a fictional reality that creates authentic feelings in a participant.

As larp is social, the constructs and content of a diegetic world are reified by each participant's executive intention and automatic reactions collaborating to form a separate social reality. The effects of these scenarios can feel very real, especially when an event lasts for multiple days or includes intense content (Torner and Bowman 2014). Debriefing is a measure taken to ensure that the consequences of life-like behavior do not spill into life.

Larp-specific debrief discourse holds that discussion following an event is beneficial, even necessary, primarily for thorough emotional processing. This concept of *bleed*, emotional spillover between character and player, is the paramount concern of the discourse (Montola 2010). Bleed is not always negative, but an effect of intense content. Intensity often means effort to a degree uncommon or unpleasant outside of the safe space of play. The conditions of safety necessary for play are weakened in play involving heavy bleed (Montola 2010). Addressing bleed by recontextualizing a player following intense content is the apparent purpose of debrief within the reviewed literature.

Methods of conducting debriefing all share a component of instilling social support in exchange for the original safety involved in allowing oneself to experience intense content (Fatland 2013, Stark 2013, Bowman 2014b). Debriefing and *workshopping* — a pre-event companion activity in which roles and mechanics are enacted at an independent event in order to create safety and trust —are considered mandatory inclusions for larp design by some authors within the research literature (Bruun 2011). Recent literature on labor in larp considers debriefing first order emotional labor that is essential to running a larp (Jones, Koulu, and Torner 2016).

7. CONCLUSION

Understanding the implications of debriefing is necessary as the practice continues. As educational psychologically-intense and larps become popularized, the implications of a transitional debrief should be understood by those theorists seeking to responsibly contextualize their play. For the sake of context in both educationally-minded and psychologically-triggering larps (Brown 2014), workshopping is also necessary to setting goals and instilling trust. Larp debriefing is not therapy. Further research may find theoretical grounds to substantiate debrief as a healing process following intense content, but its purpose does not require such a thorough defense. Larp debriefing is a transitional period between a game and its contextual reality that lets players reinforce the social bonds that allow play and reflect on their own actions. CISD studies maintain that debriefing is not a time for treatment, but an opportunity to identify psychological issues arising from an incident (O'Brien, Mill, Fraser, and Anderssen 2011). Larp debriefing has the same theoretical capacity to identify lasting emotions triggered by play that can be dealt with in more than a single session of peer support. Until that development, debrief is best considered as a transitional tool rather than a salve when designing post-game events.

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BIO

Brodie Atwater (they/them) is a poor little punk who just wants to make sure everyone gets to play. Right now, they study at Goddard College's BA/MA Psychology & Counseling Program in order to build a therapeutic practice around larping. They would like you to know that they are looking for a Master's program and are getting a little bored in Massachusetts. Feel free to suggest cool places they could go for a degree or invite them to your game at Brodie.Atwater@gmail.com.

Enhancing Healthcare Simulations and Beyond: Immersion Theory and Practice

Popular abstract: This paper synthesizes the different ways that players and theorists discuss immersion in role-playing games, establishing six major categories: immersion into activity, game, environment, narrative, character, and community. For the purposes of understanding typical modes of engagement, immersion concepts are considered alongside player motivation theories. Furthermore, this article applies these categories, which are drawn largely from game studies, to the field of health care simulation, categorizing specific practices within the simulation classroom according to types of immersion. The goal of this research is to enhance the understanding and design of simulation by appealing to multiple modes of immersion, which may assist in engaging a greater number of students. Diversifying the types of experiences within health care simulations in order to appeal to multiple modalities of immersion holds the potential to create more rich and layered experiential learning situations.

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1. INTRODUCTION

One of the more complex and mysterious concepts in the field of role-playing studies is immersion. Most participants report having experienced the phenomenon of immersion during play, using phrases such as "losing myself in the game" and "the character took over." However, the definition of the term itself is hotly debated in discourse communities, as participants soon realize that they are describing different sorts of experiences from one another (White, Harviainen, and Boss 2012). Some theorists suggest abandoning the term entirely; debates about the nature of immersion often become unproductive when players feel the need to defend their preferred experiential modes or establish them as superior to those of others (Holter 2007; Torner and White 2012). Ultimately, the term immersion persists despite these attempts to redefine and – in many ways – rebrand it.

Rather than challenging the term, this paper synthesizes the different ways that players and theorists discuss immersion in role-playing games, establishing six major categories: immersion into activity, game, environment, narrative, character, and community. For the purposes of understanding typical modes of engagement, immersion concepts are considered alongside player motivation theories (Bartle 1996; Kim 1998; Pohjola 1999; Edwards 2001; Bøckman, 2003; Harviainen 2003; Yee 2006; McDiarmid 2011; Bowman 2013). Although the two concepts are not identical, we considered them as related and connected phenomena. These categories are similar to the types established by Gordon Calleja (2011)

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in his work on video game immersion with some minor distinctions, as explained below.

Furthermore, our work applies these categories, which are drawn largely from game studies, to the field of health care simulation, categorizing specific practices within the simulation classroom according to types of immersion. This research follows our previous articles on educational role-playing (edu-larp), which streamline role-playing games with other forms of experiential learning such as simulation (Bowman 2014; Standiford 2014; Bowman and Standiford 2015). The goal of this research is to enhance the understanding and design of simulation by appealing to multiple modes of immersion, which may assist in engaging a greater number of students. This theory adheres to the notion that individuals often differ phenomenologically with regard to the modes in which they most easily or commonly immerse. However, participants can and do engage in multiple modes of immersion at once. Diversifying the types of experiences within health care simulations in order to appeal to multiple modalities of immersion holds the potential to create more rich and layered experiential learning situations.

2. IMMERSION INTO ACTIVITY

Some forms of immersion focus upon the repetitive execution of a particular task or activity involving a certain degree of agency (Ernest Adams 2004; Holopainen and Björk 2004; Ermi and Mäyrä 2005), or kinesthetic involvement, as Calleja (2011) terms it. Immersion into activity most closely aligns with the concept of flow. In flow states, players engage in an activity with clear goals, progressions, and immediate feedback that require a balance between challenge and skill (Csíkszentmihályi 1975). Entering into flow states requires a certain freedom from

¹ This theoretical synthesis is explored in greater detail in Sarah Lynne Bowman, "Immersion and Shared Imagination," in *Role-playing Game Studies: Trandmedia Foundations*, edited by Jose Zagal and Sebastian Deterding. In review for 2017 publication.

distractions, both internal – such as fear or anxiety – and external. Flow states can often draw participant's attention from other physical or environmental needs and are often positively correlated with positive affect; in others words, regular, enjoyable immersive experiences can make people feel happier, providing a sense of achievement, lowering anxiety, and improving self-esteem.

Many simulations involve immersion into activity, particularly those inviting health care professionals to practice certain key skills that require physical competency. Indeed, newer undergraduate students may prefer this type of immersion, as these simulations offer them hands-on training for common skills in their profession. For example, in task-trainer simulations, students practice inserting IVs into the arms of dummy patients, changing their wound dressings, and checking their blood pressure (Alexandrou et al. 2012). These activities measure competency in clear terms, e.g. how many catheters or IVs the student successfully inserted. Such learning also can take place virtually, as with virtual IV training, which offers haptic feedback such as a video game controller and interface (Wilfong et al. 2011). The degree to which students in virtual settings are training the actual sensorimotor skills needed for the job depends upon the interface, but such simulations can help improve skill performance, learner satisfaction, critical thinking, perceived competency, and role confidence in a lowrisk practice environment (Laschinger et al. 2008).

3. IMMERSION INTO GAME

Another mode is immersion into game, in which players adopt what Bernard Suits calls a lusory attitude, meaning that they become "willing to strive toward the game's goal using only the methods prescribed by its rules" (qtd. in White, Harviainen, and Boss and 2012, 73). Immersion into game involves solving problems through cognition, including strategic thinking, abstract reasoning, and tactics (Adams 2004; Ermi and Mäyrä 2005; Bowman 2010; Björk 2011). In Calleja's (2011) model, this type is called ludic involvement. In order to be game-like, these challenges often include a tension between risk and reward, which creates a sort of productive intersection between what Nicole Lazzaro (2004) calls frustration and fiero, or triumph. This type of immersion is called gamism in role-playing communities such as the Forge (Edwards 2001; Bowman 2013), although the term is controversial. In gamism, players focus upon achievements and "winning" when possible.

Many simulations require students to solve problems in order to complete the exercise successfully. For example, some simulations require students to interact with standardized patients in order to diagnosetheir medical conditions or identify medications that are having an adverse effect (McCabe 2013). These simulations range from easy to difficult and have clear win conditions that require some degree of problem solving (Jumah and Ruland 2015). Like immersion into activities, game-like simulations offer students a feeling of accomplishment by providing clear rubrics for success and failure by which students can measure their decision-making abilities and psychomotor skills (Ashcraft et al. 2013).

4. IMMERSION INTO ENVIRONMENT

One of the most significant elements of role-playing games is that they establish new environments in which meanings shift from the mundane to the extraordinary. *Immersion into environment* involves exploring the different aspects of an alternate game world, whether physical, mental, or virtual. Calleja (2011) refers to this type as *spatial involvement*, although he mainly discusses this experience as immersion into a virtual space rather than a physical space, as in a larp or simulation.

This concept is informed by the theory of *presence*, which communication studies refers to as the "illusion that a mediated experience is not mediated" (Lombard and Ditton 1997). In *telepresence*, an individual can project their consciousness through the use of technology to another, real location, such as a video conference call (Minsky 1980). In some cases, the individual can manipulate objects in the other location, e.g. remote surgeries in the field of medicine. A tabletop role-playing game that takes place over online video conferencing software is an example of the use of telepresence in gaming. Alternatively, with *virtual presence*, participants inhabit an imaginary, virtual world such as *World of Warcraft* or *Second Life*.

Proponents of presence theory often argue that the more realistic the setting becomes, the more immersion players will experience. Realism in this sense can mean realistic representational mechanics, such as a tabletop game's combat mechanics that closely resemble the physics in the mundane world. Alternatively, realism can involve attempting to render a visual space as accurately as possible: e.g., high-fidelity simulations in medical training (Standiford 2014); historical reenactment societies (Stark 2012); online worlds with 3D virtual reality technology and advanced graphics; and larps designed with the 360 degree immersion aesthetic, in which all props and settings represent real places and objects in the fictional world (Koljonen 2014).

Forge theory refers to this creative agenda as *simulationism* (Edwards 2001) and players with this motivation often feel jarred by details in the fictional world that do not match up to their conceptualization of accuracy according to the game canon (Bowman 2013, 14).

While realism in the execution of game worlds can increase the potential for immersion in many players, some theorists find problematic the assumption that increased production values or mimesis will lead necessarily to heightened engagement. With regard to digital games, Salen and Zimmerman (2004) refer to this assumption as the *immersive fallacy* (451). Johanna Koljonen (2014) describes similar problems with this mentality with regard to the 360 degree immersion aesthetic in larp, stating that "a complete environment alone does not generate better role-playing" (89). Overall, while a realistic world is not always sufficient to generate a sense of immersion in players, it can help ease the transition from the mundane frame of reality to the frame of play.

This category is particularly pertinent when discussing health care simulations, which often attempt to create a realistic environment for students to inhabit (Rossetti et al. 2014). Examples include simulation labs that feature fully functional emergency rooms, doctor's clinics, actors portraying standardized patients, and realistic "sim man" dolls that exhibit symptoms and can receive treatment (Ignacio et al. 2015). While these elements contribute to the realism of the scenario, adding additional elements from the other categories may help enhance the immersive potential of these environments.

5. IMMERSION INTO NARRATIVE

Some researchers focus on the importance of a fictional narrative in producing an immersive, participatory experience (Murray 1997; Harviainen 2003; Ermi and Mäyrä 2005; Jenkins 2008; Cover 2010; Björk 2011). Stories engage people by creating an identification between the audience and the narrative events undergone by the characters. Calleja (2011) terms this type of immersion *narrative* involvement. *Transportation* theory emphasizes the importance of narrative as a vehicle for immersion, as it transports the mind to another time and place (Gerrig 1993). This transportation effect is particularly potent in terms of persuasion, as identification with narratives may prove more compelling for audiences than messages lacking stories (Green and Brock 2000).

While all forms of narrative are potentially transportative, the act of role-playing is particularly immersive due to the *first-person audience* (Montola

and Holopainen 2012; Stenros 2013). In role-playing games, players both enact the narrative and observe it without an external audience. The emphasis on story as the primary motivator for immersion into a game world is called *narrativism* in Forge theory (Edwards 2001).

Some health care simulations include narrative enactment or storytelling. For example, a simulated patient may relay a story during a diagnostic session that features both critical and non-critical information (Keltner, Grant, and McLernon 2011; Nestel and Bearman 2014). Alternatively, the simulation itself may feature a narrative structure in which certain "plot points" will unfold at certain times, often based upon actions taken by students (Oudshoorn and Sinclair 2015). Overall, the addition of narrative elements to simulations may aid student immersion by producing the transportation effect.

6. IMMERSION INTO CHARACTER

One of the most common uses of the term immersion refers to the experience of enacting a character (Harviainen 2003; Björk and Holopainen 2004; Ermi and Mäyrä 2005; Yee 2006; Cover 2010; McDiarmid 2011). This type is the major point of divergence from Calleja's (2011) model. Calleja speaks of affective involvement in terms of becoming emotionally engaged, but does not directly address character enactment. In the Nordic larp community, one philosophy of play called the Turku School posited by Mike Pohjola emphasizes immersionism as the primary goal of role-playing (2003; Bøckman 2003). Expanding upon the notion of suspension of disbelief, Pohjola suggests that in order to become immersed, players must actively pretend to believe that the events of the game world are real and respond faithfully as their characters (2004). Additionally, some roleplay scholars emphasize gaming as conducive to identity exploration through enactment of alternate personalities or avatars (Bowman 2010; Banks 2015).

While role-playing, players experience what is known in drama therapy as aesthetic doubling (Østern and Heikkinen 2001), sometimes called double consciousness (Saler 2012), in which they experience the game world both as themselves in an observational role and as their character (Lukka 2011; Montola and Holopainen 2012; Stenros 2013; Bowman 2015). The degree to which a character is experienced as distinct from the player differs from person to person, as does the degree to which the player "loses" themselves in the character (Harviainen 2006; Bowman 2015). Regardless of the type of narrative and degree of character immersion, this identification can produce a temporary loss of self-awareness (Balzer 2011, 25),

feelings of greater empathy with people from other viewpoints (Kaufman and Libby 2012), as well as increased self-awareness about a player's own perspective upon reflection after the game (Meriläinen 2012). Additionally, deep character immersion can produce feelings of *catharsis*; players often report enjoyment as the result of crying in character or having extreme emotional experiences that they might find unappealing in mundane life, which get processed as positive experiences after the game (Montola and Holopainen 2012).

This concept of character immersion holds great potential with regard to simulation design. Creating more complex characters for students with specific diegetic motivations aside from simple problem solving might enhance the experience for students, particularly with regard to empathy and selfawareness (Anderson and Nelson 2014). For example, nursing students could portray characters with added levels of common emotional and interpersonal complications, such as lack of sleep, problems with difficult coworkers, or issues in their romantic lives. Additionally, simulations specifically designed to produce empathy in students can aid in their social skills. For example, in the Hearing Voices scenario, students play patients with schizophrenia, who are hearing hallucinated voices over earphones while attempting to communicate with doctors. This exercise has no clear win condition and is meant to produce in students greater empathy and understanding for patientswith this psychiatric condition (Hamilton Wilson et. al. 2009).

7. IMMERSION INTO COMMUNITY

The last category emphasizes immersion as a social state: immersion into community (Bartle 1996; Björk and Holopainen 2004; Yee 2006; Bowman 2010; Cover 2010; McDiarmid 2011; Bienia 2012). For many players and theorists alike, the experience of role-playing immersion cannot be divorced from the social contexts - both in-game and out-ofgame - within which they transpire (Stenros and Hakkarainen 2003). This concept correlates with Calleja's (2011) shared involvement, which includes competition, cooperation, and cohabitation with both human and non-human actors within virtual games. In this sense, role-playing is not an individual activity, but rather a form of shared imagination. This concept of social immersion focuses upon the ability to play with identity through what Todd Nicholas Fuist (2011) calls the agentic imagination. Fuist posits that role-players immerse on three levels of social practice and interaction: 1) their immediate gaming group; 2) the shared imagined space of the game world; and 3) the greater collective identity of the gaming community (114).

Even within the Turku School, Pohjola (2004) stresses the importance of *inter-immersion*, which describes the ability for players to draw one another into deeper states of immersion through portrayals of character. Similar is the notion of *group flow* (Walker 2010), an immersive state often experienced by players in sports or musical groups who "get into the groove" or are "in the pocket."

Many health care simulations require students to practice their interpersonal skills, including team work, bedside manner, empathy, and leadership. Simulations that add interactional elements can enhance their potential benefits by situating scenarios in the social contexts that students are likely to experience in actual practice (Dearmon et al. 2013). When considering Fuist's theory, health care students in simulations immerse a) into their classes or small groups, b) into their shared imagined space of the simulation environment, and c) into their larger, developing identities as a community of nurses and doctors.

8. CONCLUSION

Health care simulations can increase their potential effectiveness by engaging students through multiple modes of immersion. An example of a successful scenario that involves several types of immersion is the Cardiac Resuscitation Simulation at Texas State University. In this scenario, students work in teams to perform CPR, resuscitate the heart, and give medications to a "sim man" doll, while also attempting to deescalate panicked family members. This simulation features activities; game-like win conditions, as only 50% succeed, even when treatment is applied correctly; a realistic environment; an unfolding narrative; thin characters – e.g. ER nurses; and communal interaction with other nurses and the patient's family. While the scenario could be improved to add more complexity to the character descriptions, overall, this simulation engages all six modes of immersion. Similarly complex scenarios are used in psychiatric nursing to train students to assist patients with mental illnesses such as depression (Rick, Zolnierek, and Holmes 2014). Ultimately, these immersion categories could benefit simulation designers by helping them understand the elements that enhance student engagement. Consciously including these aspects in scenarios can broaden their potential learning impacts.

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BIOS

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Scaffolding Role-Playing: An Analysis of Interactions with Non Role-players of All Ages

Popular abstract: This paper explores the relationship between nature and culture during a series of scaffolded live action role-playing (larp) activities designed as part of a science, technology, engineering, art, and math (STEAM) summer program for indigenous youth. As a linked construct, nature and culture implicitly ground much of human activity, figuring centrally in core ontological and epistemological frameworks (Bang, Warren, Rosebery, and Medin 2012) and human cognition and development (Medin & Atran 2004). After forefronting cultural stories as the launch of activities, scaffolded larp practices were used as one series of activities of a multiple site, multiple year design-based research study. The STEAM programming was designed to explore the complex connections of indigenous culture, knowledge systems, philosophies, and relational epistemologies with perspective taking (Galinsky, Ku, & Wang 2005). Larp was used to add embodiment of non-role-players through degrees of immersive practices. This paper focuses on the larp finale of the 5 activity larp series at the Seattle site. Preliminary analysis of the video recordings, both handheld and point of view, demonstrated that children took up multiple perspectives of the complex systems of local plants and animals. The participants role-played those relationships with nuance and understanding of how those plants and animals interact and relate. Those interactions also characterized the three layers of role-play that were taken in steps when physical representations of the non-human characters were lacking as a part of the design (Fine, 1983; Bjork and Holopainen 2003).

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1. INTRODUCTION

The divide between natural worlds and cultural worlds has affected the ability of Western science education to engage students from marginalized communities and women (Bang and Marin 2015). The nature-culture divide holds not only environmental implications, but political implications (Massey 1992) and educational ones (Dehghani, Bang, Medin, Marin, Leddon and Waxman 2013; Bang and Marin 2015). Continuing to develop work on nature-culture relations, the construct of ArtScience was employed in 2013 to explore indigenous ways of knowing as an alternative to normative forms of science ideologies and practices.¹ This paper explores the gamification part of an indigenous STEAM program (Science, Technology, Engineering, Arts, and Mathematics), which was part of a larger ongoing study. This article explores the use of educational live action role-play, or edu-larp, and the interactions between young and adult participants in the larp finale activity of 2015 program specifically. The program's main goals were to increase children's understanding and reasoning about complex ecological systems with a pedagogical commitment to perspective taking, which research shows increases ecological understanding (Bang, et al., in press).

Gamification across education has been spreading steadily since its inception in 2002 by Nick Pelling (Marczewski 2013). One method of gamification, edu-larp, is seeing increased usage (Bowman and

Standiford 2015). Edu-larp in particular was selected as a method for exploring play and learning as a model for expansive learning (Engstrom 2010) and embodied cognition (Wilson 2002). Bowman and Standiford (2015b) describe edu-larp as "an educational role-playing exercise in which participants adopt a new role for a long period of time in a bounded, fictional scenario that may or may not resemble mundane reality. Some edu-larp scenarios contain rules or win conditions, but not all" (1). This method fit ideally within our outdoor education models that were already in place. The following frameworks are necessary to understand the design of the study and the larp activity.

1.1 Nature-Culture Relations and the Nature-Culture Boundary

Bang and Marin (2015) describe nature-culture relations as a linked construct that grounds much of human activity and figures centrally in core ontological, epistemological, and axiological frameworks across social and scientific domains. Bang and Marin explain that "dominant constructs of nature-culture relations have typically positioned humans as distinct from and a part from the natural world" (531). Therefore, dominant constructs of nature-culture relations within Western culture worldviews tend to create more opaque and impermeable boundaries between nature and culture, even to the point of people vs. nature. This division is especially reinforced in science education, where "dominant constructions marginalize or silence the heterogeneous 'hives of activity' involved in living

¹ Emergent Meaning Making in ArtScience, NSF Grant: DRL-1348494

and making sense of the world, including those of contemporary biological science, in which complexity, relationality, and environmental variation increasingly figure in explanatory accounts" (Bang, Warren, Rosebery, and Medin 2012, 304).

1.2 Bleed and Learning Transfer

The divide between nature and culture is not the only boundary involved in the design of the edularp activity. Bleed is a phenomenon in the practice of role-playing. The term was popularized by the Nordic larp community, specifically from a style of freeform role-playing called jeepform, where games were designed for high intensity emotions and difficult situations. Bowman (2013) describes bleed as the "phenomenon of the thoughts, feelings, physical state, and relationship dynamics of the player affecting the character and vice versa" (Bowman 2013). The boundary between the player and character specifically become more transparent and porous, allowing for visibility of each other and for knowledge, skills, emotions, and cognitive spaces to be shared within the same physical body.1

Bleed in larp literature has been connected with catharsis, which is experienced in both positive and negative ways (Montola 2010; Bowman 2013). At the surface, bleed appears to be another form of learning transfer, which is the process and the effective extent to which past experiences affect learning and performance in a new situation (Ellis 1965). It is important to note that while bleed sounds similar to transfer, Ellis's notion of the transfer of learning of past experiences in education tends to pertain to specific to skills and content knowledge (McKeough, Lupart, & Marini 2013), not affective phenomena as in the case of bleed. Bleed in this edularp activity was not utilized to encourage players to cry or break barriers within themselves. Bleed was used as a mediating artifact for perspective shifting, specifically to deepen respectful, reciprocal, and responsible relationships with plants and animals without anthropomorphizing them.

2. CONJECTURES

A main pedagogical strategy of the camp was to engage youth in perspective taking as more than human others to deepen respectful, reciprocal, and responsible relations with our lands, waters, and communities. The larp finale expanded this perspective taking with embodiment to helping position participants within the perspectives as plants, animals, and eventually, humans. Two conjectures

about the dynamics of interest and learning are described below.

Conjecture 1: Role-playing can enhance nature-culture relations

In taking on the perspectives of more than human actors in a natural ecosystem setting, a participant can enhance nature-culture relations. Role-playing, while an imprecise vehicle for the cognition of a more than human actor due to practices of anthropomorphism, can be ideal for positioning human participants within the natural world. Having enacted the ecosystems as more than human others, human actors are given a space to respect the ties a plant or animal has within ecosystems. Bleed can carry over into a participant's activities outside of the edu-larp activity though bleed-out, when the emotions, thoughts, relationship dynamics, and physical states of the character affect the player (Bowman 2015a).

Conjecture 2: Role-playing allows for grasping the standpoint of another being and also shifts the angle from which you view a scenario, system, or community.

Role-playing puts you in the headspace and experiences of another person or being as a role. This role adoption is a form of perspective taking, which Galinsky, Ku and Wang (2005) describe as the cognitive capacity to consider the world from another individual's viewpoint. The adoption of a role of another person or being also changes the mental landscape of how a participant views an idea, a system, or a community. This shift in perspective is what Bang, et al. (in press) describe as changing positioned viewpoints to observe from multiple directions. The authors further explain that that these multiple perspectives are important to human social development and healthy relational interactions. Shifts in perspective taking allow participants to see the relationships a being has from multiple directions and create a more full picture of the reciprocality another being has with others.

3. CONTEXT AND DESIGN

The second year of the program took place in Discovery Park in Seattle, WA in areas surrounding the Daybreak Star Indian Cultural Center. This area was originally territory for the Federally unrecognized Duwamish people, a Lushootseed speaking Coast Salish tribe. The site of the larp finale took place around a large pond. Participants of the program ranged in age from 4 to 60, with 31 young people attending the camp that were ages 4 to 16, and staffers and participating family members from their early 20s to 60. Participants were from the Seattle

¹ For more on the types of and effects of bleed as a phenomenon, see Bowman 2015a.

urban native community. All activities were designed from the lands in which they were situated as well as cultural stories, song, and language.

The edu-larp activity was designed no differently, starting from the Grandmother Cedar story as told by Roger Fernandez (Appendix B), a S'klallam storyteller who learned the story from Master Storyteller Johnny Moses of the Tulalip tribe. The edu-larp consisted of five exercises: non-human actor embodiment of one type (cedar) in small groups; isolated but varied small group types (a multitude of local plants); intersection of those group types in pairs and trios; intersection of those varied types in small groups with environmental scenarios described by a staffer; and then finally a full role-play with participants and staffers alike within a setting (see Appendix A).

The setting of the finale was bounded mainly by Roger Fernandez's telling of "Moon the Transformer" and influenced by others told during the program. Participants were divided up into specific groupings to represent salmonberry, fireweed, sword fern, horsetail, yarrow, nettle, and cedar and started out in their isolated groups. Participant goals were to have at least ten different experiences about which to discuss afterward. The main drive of external change within the setting was Moon the Transformer. The character of Moon the Transformer used the mechanic of tapping someone on the shoulder and said, "I harvest you," to plant participants. These players were taken back to a space where they were transformed with facepaint into other plants, animals, seasons, elements, and eventually, humans.

4. RESEARCH QUESTIONS

As a design-based research study (Brown 1992; Cobb, Confrey, Lehrer and Lehrer 2003), the research question is nested into the second year's overall program question: How can we live in respectful, reciprocal, and responsible relations with our lands, waters, and communities? The research question for this paper is: How can edu-larp, as a form of agent-based modeling of more than human actors, deepen respectful, responsible, reciprocal relations with our lands, waters, and communities?

5. RESEARCH METHODS

The data presented in this paper comes from a larger design-based research study where youth -- working with educators, scientists, and artists -- expand their knowledge on complex systems, ecosystems in particular. Following the first year, edu-larp was introduced to the program as a gamification method for agent-based modeling of local complex

ecosystems. Agent-based modeling, when combined with embodiment, has demonstrated enhancement of reasoning from the perspectives of more than human actors (Danish 2014). This paper focuses on the west coast site in Seattle, WA, specifically the finale portion of the larp series.

5.1 Data Collection and Analysis

Throughout most of the larp scaffolds and finale, both point of view (POV) cameras and handheld cameras were the mainstay of data collection. POV cameras were placed mostly on staffers, then later on young participants. The video was analyzed using grounded and interaction analysis methodologies (Glaser, 2009; Derry, et al. 2010; Jordan & Henderson 1995). Video reviewing was organized by activity and then by scaffold. The grounded framework of the analytic memos was constructed with multiple viewings and write ups. The data for this paper were selected for interaction analysis based on relevancy to the conjectures and questions and emergent to the analytic memos.

6. FINDINGS

Preliminary analysis of data demonstrated that children took up multiple perspectives of the complex systems of local plants and animals and role-played those relationships with nuance and understanding of they interact and relate. Those interactions also characterized the three layers of role-play that were taken in steps when physical representations of the non-human characters were lacking as a part of the design (Fine, 1983; Bjork and Holopainen 2003). The data showed that immersive moments were interrupted by lack of physical representation of the diegetic setting, turning the layer of identity discovery into an emergent mechanic. The following section will look at a single set of interactions caught on a POV camera worn by C, a participant of the program.

6.1 Complex Ecological Systems Reasoning

C, a young person who has been transformed into a deer, is in search of food. They are told that deer do not eat stinging nettle, so in every encounter with nettle, they turn away and look for what they believe is more edible fare. At every encounter looking for more food, C starts with "What are you?" Eventually, C finds a group of sword fern characters and begins to eat them, one by one. On the third sword fern that they try to eat, N says, "Nuh uh, I-I'm a little tiny spore and I-I attach onto you." C here takes up notions of what is edible and not based on knowledge

of the food chain of herbivores and what has less defenses to their deer character.

6.2 Multiple Nuanced Perspectives

In the excerpt, N takes up a perspective of a sword fern spore and travels on C as a deer. Among a grouping of full sword fern plants, N's perspective of a spore shows how participants not only viewed the movements and lifecycles of full plants, but also the perspectives of how those same plants move in the ecosystem.

6.3 Interrupted Immersion

C, like in many other excerpts, asked the question, "What are you?" due to a lack of physical representation of what the plants look like. Transformations involved facepaint; initial plant participation did not. While this lack can be considered a design flaw, it elicited interactions as an emergent mechanic in the question, "What are you?" This question demonstrates 1) an interruption of immersion and 2) an encounter with the rules and mechanics layer of role-play theory (Fine, 1983; Bjork and Holopainen 2003).

7. GENERAL IMPLICATIONS AND CHANGES FOR DESIGN ITERATION 2

Edu-larp demonstrates advantages, when combined with traditional outdoor education methods, for engaging indigenous youth in learning STEAM. With a focus of perspective taking embedded into nature-culture relations and culturally-based stories, embodiment of those perspectives and stories is an important activity to help deepen the content knowledge of the program on many levels. The phenomenon of bleed, which blurred the lines between characters and players, helped blur the lines between nature and culture when people roleplayed a more than human ecosystem. In the next iteration, blurred boundaries of the larp by utilizing perspective taking practices throughout the program will be more pronounced. Interaction across the nature-culture boundary will inherently be tied to further interaction across the social and diegetic boundaries.

However, the larp will need specific design changes. First and foremost is to improve physical representation for all more than human characters to improve immersion. The designers hope to lessen the cognitive load of figuring out what a character is by have enough symbolic representation to simply encounter someone, fall into conversation, and play. The larp also needs to emphasize death and rebirth

as a cyclical system, such as a limit on the amount of lives before a player is transformed into another being to further focus on the multiplicity of experiences within the complex ecological system. Time and seasons also should be brought into representation so that players can encounter changes of environment. Further designs would emphasize the shared experience across the board of player vs. environment scenarios rather than just player vs. player interactions, which were the focus of the first iteration.

Building science education programs that expand the boundaries of perspectives while embedded in cultural ways of knowing can be both engaging and bridging for people of many different communities. One does not need to look further than offerings of pop culture references within classrooms that instructors use to engage students. However, not all cultural references engage students equally. Where nature-culture relations and indigenous populations are concerned, there is a need for more culturally responsible designs that allow not only players and students to see themselves reflected in a game setting, but also their cultural ways of knowing, being, and doing. By taking the perspectives of more than human actors and seeing how those agents interact with one another in a setting, students can begin to respect others, see relationships of reciprocity, and have their encounters bleed into their everyday lives as responsibilities to the lands, waters, and communities that they live in, with, and around.

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APPENDIX A: Larp Scaffolded Design

Day 1

Scaffold 1: Loose larp embodiment exercise

Location: Main field by the path to the rest of the park

- Go over the embodied moves from Grandma Cedar story with repetition
 - a. Do the moves a couple of times
- Start to incorporate embodied moves of other parts of the web
 - Some staffers go out of their way to step into the deer, bird, wind, and sun roles in an improv of embodiment
 - b. Repeat the moves a couple of times
- Begin question thread of what kinds of other activities would we do as cedar
 - a. (Script) We're going to think like our plant relations. We will think and move as if our plant relations moved in our scale of time. Plants, after all, do move, grow, eat, drink, sleep, and feel, just in different scales from us. So just like in the Grandmother Cedar story, this is what we were doing, moving as if we were Grandmother Cedar and her grandson. Let's keep going with that, I want us all to think and be creative and imaginative. "So how would a cedar drink water deeply from the land?"
 - b. "What do cedars do at night? How do they sleep?"
 - c. "How do cedars make more cedars?"
 - d. When it becomes apparent that an idea is difficult to do, ask "How can <Insert X>"
 - Linguistic pivot to acknowledge what the kids said about including a fantastical or difficult to represent embodiment.

Day 2

No larp on Day 2.

Day 3

Scaffold 2: Other new identities

Location: Lower field with the berries next to the parking lot

- 1. Rethread previous experience with embodiment
- 2. Explore the 6 out of 7 plant identities as framed by groupings

- a. Cedar
- b. Fireweed
- c. Nettle
- d. Salmonberry
- e. Sword Fern
- f. Yarrow

Day 4

Scaffold 3: Intersections of identities

Location: On the hike to the beach for low tide

- Rethread previous experience with different plants
- 2. Create intersection of two groups

Scaffold 4: Intersections of identities with scenes

Location: Main field by the path to the rest of the park

- Rethread previous experience with intersections of identities
- 2. Create environmental and storied interactions relevant to their locations. Place groups near to their actual plant growth locations.

Day 5: Larp Finale

Location: Lower pond of the three filtration ponds

Eel Grass introduced as an NPC staffers only

Land/stone relatives

Plant groups: Salmonberry, fireweed, sword fern, horsetail, yarrow, nettle, and cedar

Rules: Many lives

Out-of-game calls: Game on, off, hold

Focuses: Reciprocity, respective, giving/receiving (not taking), balance, many experiences, try to understand one another

Story setting: Creator am I; Moon the Transformer/ Changer preparing the world for the people to come

Props: Facepaint sticks, spritzers, out-of-game headbands

Changer goes in for harvesting plants ("I harvest you") and transforms them (apply facepaint and send back in) into everyone about which we have heard stories: 4 seasons, sun, moon, 4 elements, deer, raven, squirrel, coyote, sparrow, eagle, bear, wolf, rabbit, human

Participant goals: To have at least ten different experiences to talk about afterward

Designer goals: Moments of immersion, not "full adult immersion"

APPENDIX B: "The Grandmother Cedar Story"

Il tout de too hawk (A long time ago), there was an old Grandma Cedar tree. She was really, really big and really, really old. One day, a little tree was growing right beside her. It was her Grandson. Her little Grandson was growing right by Grandma and she was very happy. That little tree was growing and growing.

But one winter, there was a **big storm**. The wind was blowing so hard it was bending that little tree. It was bending the tree so hard it was going to break if the wind kept blowing it. So Grandma put her branches in front of him to block the wind. Can you all put your hands like this to block the wind? Grandma is blocking the wind so the wind doesn't hurt that little baby tree. Well, she protected him and that little tree grew bigger and bigger and bigger.

One day in the summer time, like now, it was really, really hot. The sun was so hot that poor little tree was too hot. That poor little tree, it was hurting him. What did Grandma do? She put her branches over her little Grandson, to make shade. To protect him from the sun. Can you all put your hands like this? To make shade for that little tree. He grew bigger and bigger and bigger and at night.

The deer would come to eat the little green parts of the tree. They loved to eat the little green parts of the tree and that were growing. What do you think Grandma did? She waved her branches to scare away the deer. Wave your branches like this. And they ran away. She protected her Grandson again and he grew bigger and bigger and bigger and sometimes he was alone.

His little heart was sad because **he was alone**. Grandma would use her power and she would call the little birds to come. So call the birds to come, like this. Come here, birds. The birds would come and they would fly around his tree, sit in his branches. They would sing to him; they would talk to him. Grandma took care of him. Then he grew and grew and grew. Now, he was bigger than his Grandma. He was a really big Cedar tree.

One winter, a big storm came and the wind was blowing really, really hard. Poor old Grandma; she was so old now. She couldn't fight against the wind anymore. The wind was pushing her and pushing her and she was going to break and she would die. Do you know what he did? He put his branches in front of her to block the wind, to protect her from the wind.

Then, it was summer time. The sun was so hot that it was hurting Grandma. What do you think he did? He put his branches over her to make shade, to protect her.

Then the deer would come at night and even Grandma had little green buds that they wanted to eat and they were coming up to Grandma and she as so old, she couldn't stop them anymore. What do you think he did? He chased the deer away. He waved his arms and he chased the deer away.

Then Grandma was old now. She was so old and all of her old friends were gone now. She would feel sad that her friends were gone. She was all by herself and she would feel sad that her friends were gone. Do you know what he did? He called the birds to come to Grandma, he used his powers. They sang to him, they used his branches, they talked to him, and she didn't feel so alone anymore. Then Grandma said, "Grandson, you don't have to worry about me anymore. I am really old now. Let me go. Don't worry. You take care of yourself." And he said, "Grandma, when I was little, you protected me from the wind, you protected me from the sun, you protected me from the deer. When I was sad, you called the birds to me so I wouldn't be alone. Grandma, when I was little, you did these things for me and now that I am old, I will do these things for you. Grandma, I will take care of you now, like you took care of me."

Des hoites. (Haboo).

BIO

Gabriel de los Angeles is a Snoqualmie tribal member, co-founder of n.d.n. players (ndnplayers.com), and doctoral student in Learning Science and Human Development at the University of Washington. His research interests are adult learning, development across the life course through play, and learning in informal environments. His work combines his love of fandom, games, and game culture with nearly two decades of experience with non-profit, fan-created events and community organizations around the world; his academic work in Learning Science & Human Development and equity & equality; and his background in indigenous knowledge systems, philosophies, and methodologies.

Arts-Based Inquiry with Art Educators through American Freeform

Popular abstract: In my dissertation, *Educational Communities, Arts-Based Inquiry, & Role-Playing: An American Freeform Exploration with Professional & Pre-Service Art Educators*, I explored one application of larp as arts-based research. This paper summarizes that experience, and in so doing presents opportunities to researchers interested in pursuing similar goals, methods, and concepts. My research focused on the creation of a community of play formed with professional and preservice art educators. This community used a series of American freeform games to examine how participants thought and felt about relationships in educational communities, such as schools. Doing so presented an opportunity for embodied reflection and discourse that encouraged a reaching out towards perspectives other than the participants own, which made barriers of understanding within educational settings such as time, location, and social status more permeable. American freeform was ideal for this purpose because it had few rules, encouraged players to draw on real-life experiences, presented techniques that incorporated both player and character perspectives, and was geared toward a style of play that was culturally appropriate for our group. The experiences provided a reflexive illustration of our understandings of the systems we occupied in our daily lives, and the techniques seem ripe for application in teacher preparation and development courses. As one participant said, "There is no textbook, there is no traditional class, that would have provided that learning."

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1. INTRODUCTION

In this paper, I discuss arts-based research through larp by summarizing my dissertation, Educational Communities, Arts-Based Inquiry, & Role-Playing: An American Freeform Exploration with Professional & Pre-Service Art Educators (Cox 2015). During my research, I worked with professional and pre-service art educators to develop a community of play that used American freeform games (Stark 2014) and reflective discourse to examine relationships within a collaboratively imagined educational community, such as a K-8 school. I reasoned that in enacting alternative roles present in their professional contexts (such as those of parents, administrators, students, faculty, and staff), that the links between context and perception would provoke insight and empathy in the participants (Sullivan 2010), which would in turn erode mental, emotional, and social barriers that isolated them from the other members of their real-life educational communities. To penetrate those barriers, we used the lived experiences of the games and critical discourse as a community of play (Cox 2015) to "begin with the overly familiar and transfigure it into something different enough to make those who are awakened hear and see" (Greene 1988, 129).

2. ARTS-BASED INQUIRY

I called the methodology that I developed "participatory arts-based inquiry through American freeform," a term that incorporated both the means of research and the method through which it was

enacted. The means in this case was arts-based research, which research scholar Patricia Leavy (2009) says is especially suited for projects that "aim to describe, explore, or discover", that they offer a mirror to social and emotional contexts, and that they facilitate discourse and understanding (12–13). Arts-based inquiry includes three different forms of research, which consists of data and analysis that is on, for, and/or through the arts (Borgdoff 2006). Research on art is a reflective interpretation that doesn't involve direct creation or manipulation of art. Research for art examines practices, typically aiming to make some concrete alteration to the processes of creation. Research in the arts uses the arts as tools for reflection and expression, a notion that challenges pre-existing notions of what is meant by "research". I utilized each of these avenues in my work to analyze American freeform's capabilities, how its techniques could be applied as artistic experiences, and what made those experiences meaningful.

The core of my methodology drew on a combination of ABER (arts-based educational research), which enhances perception of human activities and that is defined by the presence of art (Barone and Eisner 1997), and a/r/tography, in which practitioners use shifts between frames of reference as artists, researchers, and teachers, as tools for inquiry (Sullivan 2010). Into these I incorporated jagodinski and Wallin's (2013) *Arts-based research: A critique and a proposal*, a critical examination of arts-based research that maintains that the arts should not be viewed as objects, but as events that are encountered. I also included elements of participatory action research

(PAR), specifically the use of multiple modalities to generate and collect data (McIntyre 2008) and a transparent and reactive structure (Stringer 2014), which positioned participants as collaborators and stakeholders, rather than as subjects.

3. AMERICAN FREEFORM

The form of role-playing I used as an artistic media in my research was American freeform, which draws from a combination of Nordic freeform/short larps, indie tabletop, and US-based chamber larps (Stark 2014, 3). I had made the case for regarding roleplaying as an art form prior to my dissertation (Cox 2014), a concept that had certainly not originated with me (Stenros 2010), but that had heretofore not been widely considered within the field of Art Education. Critical to this analysis was the premise that art represents a form of non-linguistic knowledge. As Eisner (2008) explains "The evocative has as its ambition the provision of a set of qualities that create an empathic sense: of life in those who encounter it, whether the work is visual or linguistic, choreographic or musical" (6), connections that provide opportunities to share lived experiences. This concept dovetails with Markus Montola's (2008) description of larp as a collaborative and interactive social art form in that it draws on imagination and empathy.

As with most larps, American freeform presents embodied collaborative experiences that are generally inaccessible outside of the context of the game. This collective experience generates an inter-subjective space of "shared symbolically-mediated meanings" (Parsons 1994), which enables a community of play to create and recreate individual and communal identities, a blurring of lines between what is real and what is not that allowed the experience to be more than "just a game," and to effect real change on the extra-diegetic world (Gee 2005).

American freeform had several traits that made it particularly appealing for my research (Stark 2014). Firstly, it doesn't have many rules or pre-existing expectations, which made it inviting for players with different levels of experience. Secondly, it incorporates lived experiences from outside the game, which encouraged the diversity of perspective that was crucial to examining the systems of power participants observed in educational communities. Lastly, American freeform employs meta-techniques, tools that are used for "letting players communicate without letting characters communicate" (Stark 2014, 6), and which create a degree of uncertainty that disrupts familiar assumptions and narratives. The "American" connotation to American freeform

mattered because the scenarios we created were explicitly American in origin. Though many of the meta-techniques we used originated from outside of the country, our community of play was American, our practice included the focus on player safety common to American larp culture (Stark 2014), and the contexts and concepts of the game were specifically situated in our understandings as preprofessional and professional art educators who worked within American school systems.

The purpose of our games was distinct from those in most educational role-playing games and edularps. While role-playing has been seen as a tool for critical thought and altered perspectives (Bean 2011; Andresen 2012), it generally does so by constraining the roles to "positions in a social structure rather than persons (with personal attributes) in an imaginary world" (Fine 1983, 11). While our games were situated in an imaginary school system, it was the shifting of relationships within that context, rather than any pre-determined educational goals, that we focused our attention on. Furthermore, edu-larp and educational role-playing seek to "impart predetermined pedagogical or didactic content" (Balzer & Kurz 2015), after which the play is ended so as to not detract from that purpose (Nickerson 2008). For the purposes of my research it was important that that the ideas, emotions, and experiences that explored by the community be the emergent result of collaborative discourse and play, rather than as the result of a power dichotomy not truly representative of the beliefs of the players (Freire 2005).

We had five players in our games, including myself, each of whom was either a pre-service art educator or professional art educator. What to do About Michael? (Cox 2014), which I had designed to illustrate Michel Foucault's (1984) theories about the nature of power, provided the initial framework for our games during the research. It places players in the roles of teachers and administrators meeting to discuss a student named "Michael," whose struggles are based on Foucault's actual lived experiences (Miller 1993), and who has attacked one of his classmates. I modified the basic game, opening it to player agency by incorporating the principles and techniques laid out in Play with Intent (Boss & Holter 2012) and the Pocket Guide to American Freeform (Stark 2014).

The school in our narrative was collaboratively designed, and each player described a trait that contributed an interesting avenue of exploration, which resulted in a suburban private school with great economic diversity, a well-regarded arts program, and a recent change in leadership. Within that imagined context, the community of play

developed over twenty different characters to represent the school's students, parents, teachers, and administrators, and played in eleven different scenes. The community experimented with eight different meta-techniques that we modified to develop the story, promote introspection, and use for our collective enjoyment. These included the "ball of yarn" technique (Nilsen & Lindahl 2013), in which players threw a ball of yarn to each other while declaring relationships to determine and display character relationships, the "voices in my head" technique (Andresen 2012), which allowed "Michael" to directly confront his conflicted emotions as personified by the players, and a "locked-eyes" technique we borrowed from Ars Amandi (Wieslander 2004; Stark 2011) to enhance the intensity of one on one discussions between characters by maintaining eye-contact throughout a scene, such as in the confrontation between parents and administrators over "Michael's" continued enrollment.

4. DATA

In order to identify and record shifts in perspective, I created a group of "research puzzles" (Hunter, Emerald, & Martin 2013) at the beginning of the research that the community of play returned to at the close of each session, and which they could help modify throughout. A research puzzle differs from a research question in that it focuses on observable reactions and responses constructed through the engagement of the participants, rather than "answers," a concept which centers those meanings locally to those participants. My research puzzles highlighted how power affects relationships and ideas in an educational community, as well as the role American freeform could play in exploring those concepts.

I collected data in several forms: videos of the sessions; reflective dialogue during each session's pre-brief and debrief; visual artifacts that were created between sessions by the community of play; and entrance and exit interviews from each participant. Each piece of data represented a "snapshot," a form of narrative inquiry (Schwandt 2007) collected from different times and places, and in different forms, to provide multiple representations of how participant perceptions and feelings about the games, and the world they referenced, developed (Stone-Mediatore 2003, cited in Hunter, Emerald, & Martin, 2013, 96). I used this information to enact a grounded theory (Schwandt 2007) approach to meaning-making, beginning with the data and using the emergent themes to construct understandings as represented by in-vivo codes (Given 2008). I applied discourse analysis (Lichtman 2013) to these codes, and used that analysis to create rhizomatic maps (Deleuze & Guattari 1987) in order to describe the fluid nature of relationships and ideas (Latour 1999). The artifacts and conclusions I produced were subject to member checks (Marshall & Rossman 2011), both to ensure accuracy and to determine the direction of the research.

5. FINDINGS

In our community of play, power was seen as a contextually specific element whose exertion is intrinsic to the identity of an authority. As one participant expressed it, "we all say that we are just here for the students, but what that means really varies a lot. And in the end, we are pretty much controlled by where our authority comes from, where our power comes from." This was also true for collective representations of authority, such as with parents uniting for their child or teachers deciding what to do in a given circumstance. However, exercising the authority of a collective meant suppressing a number of individual voices, which in turn restricted flexibility and independence that in many respects would have been more effective in stating and attaining specific goals. This perception highlighted a concept of education as an ongoing discourse between structure and uncertainty.

American freeform was seen by the community of play as informative and exciting, and participants agreed that *knowing* about the difficulties and barriers faced by members of educational communities was not the same thing as *living* them. Jenny F. expressed this when she said "Obviously I was projecting my own life experiences into my characters. But I was reaching, trying to reach, into what might be going on in other students' lives." Juniper M. similarly stated that she "was able to come to understand these really intricate relationships, and drives, and desires of administration, and parents, and teachers, and students... I just don't know that I could have gotten that any other way other than actual life experience. There is no textbook, there is no traditional class that would have provided that learning."

Community members stated that future games had potential for application in pre-service education and in professional development inside and outside of the arts, a tool that disrupted assumptions and increased awareness of others similar to the "Role Method" of process drama (Landy and Montgomery 2012, 199), in that it allows people to identify and explore roles that may be difficult for them to understand. I maintain that to do so would require the following from participants: that they trust each other, that

they are willing to accept that the games have value, and that they recognize the techniques don't attempt to "solve" a problem, but to surround it (Sullivan 2010, 31). These games must focus on exploration and imagination, rather than to create a completely believable simulation, to maintain the generative uncertainty that has already proven productive.

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BIO

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Physical Presence in Simulation: A Scratch at the Surface of Complexity

Popular abstract: This article examines the impact of physical presence on simulation and educational gaming. Through a meta-review of existing research, it reveals central issues that need to be taken into account when deploying physical simulations. On one hand, the method allows participants to experience events from a visceral first-person perspective. On the other, physical presence limits their vision to one viewpoint and removes tools that other media forms could use for additional exposition. As the environment is largely indexical, fewer elements require re-interpretation in order to fit the fiction, but they can likewise be disruptive, if too far removed from the expectations of play. To balance the play experience and the learning goals, physical simulations should deploy efficient briefings and debriefings. The former ensures that players have sufficient information for play and the right approach to it, while the latter ensures that the intended interpretation of the content and events remains dominant, so that the central learning goals can be ascertained. Physical simulations are revealed as an efficient and enjoyable, yet imprecise learning tool.

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1. INTRODUCTION

This lead-in to my keynote addresses the impact, possibly also significance, of participants' physical presence in simulations. While obviously a topic that is first and foremost of interest to live-action role-playing (larp) scholars, it in truth also carries an impact on the way in which we perceive simulations in general. This is why during this keynote, I treat simulations as a kind of *play*, and speak interchangeably of players and participants, games, larps and simulations. There is a difference, but on a conceptual level it can be argued that the introduction of a human element into a simulation inevitably makes it into a kind of game (Bell 1997).

Nevertheless, we exist increasingly in a global culture where the word game more and more denotes by default digital games. Board, card and physical games are seen as an exception to the rule, particularly in the classroom, and at the same time another type of physical play—professional-level sports—is increasingly taking resources from both newsworthy items in media and—at least in the United States—academic education.

The status of sports, however, is in truth as much of an inspiration for this lecture as is the long tradition of larp and its close siblings (see e.g., Morton 2007 for details). In many ways, athletic competition has taken the place of tribal competition, including a function as a light substitute for war, but also as something that drives societal expectations. For example, a fit CEO is more easily perceived to be a good CEO these days, and doubly so in the case of up-and-comers. Having mastery over the physical has become an increasingly expected part of the mastery of oneself.

Fans treat the most popular sport dead seriously, leaving little room for the playful. And successful coaches then also give advice to business and government leaders, as if their tactics were directly transferable. Research usually says, however, that they are not.

When taken to the extreme, amusingly enough, physical exertion seems to regain its playful attributes. Some ultra-marathon runners crossing over distances of well over fifty miles and on occasion up to hundreds, for example, may train and eat very rigorously before the trial, yet may binge on whatever they want during it. They exemplify that which I expect out of truly brilliant physical simulation participants: the desire to do well, the knowledge and will to prepare properly, the self-awareness to know one's limits, strengths and desires, and the ability to throw oneself into combining all of those in a natural manner. Of course, to be honest, endurance, the drive to win and a more-than-slight case of madness may prove to be advantageous as well.

Before I return to this, however, I wish to first discuss the traditions of physical simulation in general, what our growing body of knowledge tells us about and gives us for improving them, and the rather surprising effect physical presence actually has on how simulation is experienced.

2. CLASSICAL WAYS OF LOOKING AT SIMULATION

Typologies of simulation/games usually divide them based on the relationship between the gameas-artefact and the play processes that can and do emerge. Thavikulwat (2004), for example, uses two axes, one on control and one on interaction, to discuss four options ranging from purely computer-directed to computer-assisted versions where the focus in on participant control and participant to participant interaction. Similar ideas can be found in the context of e.g., educational board and card games.

While discourses have increasingly leaned towards the digital, physical role-playing has been a recognized part of the traditions for a long time. Even if we do not take into account the various potential historical roots ranging from the re-enactments of rulers (Ericsson 2004; Stark 2012), historical enthusiasts such as the SCA (Stallone 2007), or the playful rituals of the so-called Hellfire Clubs (Lord 2008), we know for certain that explicitly educational role-playing has been successfully deployed since the 1970s (Crookall, Oxford and Saunders 1987)—which is right about the same time as computer-related gaming started to gain firm ground. In many fields, non-digital educational RPGs are even the standard rather than the exception. Whether we, like Crookall, Oxford and Saunders, count them as role-playing, or like Simkins (2015) do not, is for this purpose irrelevant.

No matter how fantastic the simulation or game content, the real world acts as our key referent for interpreting it and interacting with it (Klabbers 2009). It is therefore necessary to ask: how is it any different if we are physically co-present at play, when we are engaging our embodied cognitions for all role-playing no matter what (c.f. Lankoski and Järvelä 2013)?

3. WHAT IS SO SPECIAL ABOUT BODILY PRESENCE?

The participants' physical presence means that they are, frankly put, physically there, limited by senses, distances, abilities and so forth. While we will return to this topic more thoroughly later on, it is important to realize that this means that emphasis will be placed by others on e.g., physical cues (Säilä 2004), props (Bienia 2016), and physical appearances (Habbe 2012). Likewise, the players themselves will have to deal with bodily experiences (e.g., Gerge and Widing 2006) and the presence of their own mind alongside that of the character (e.g., Lukka 2011).

Secondly, being physically present in the situation means having limited vision. The spatial implications of this will be discussed later, but here I want to focus on the mental side. The limited vision carries into one's viewpoints. While one of the central advantages of role-playing is that it allows participants to experience different new viewpoints, in a physical

simulation or larp that opportunity tends to be limited to one viewpoint at a time. Unless the situation includes meta-techniques that permit adopting someone else's point of view (e.g., inner monologues), there is a significant risk that the motivations and complexities of other characters remain hidden. This can be quite crucial, in the case of, for example, military simulations (Vanek 2012) or political larps (Harviainen 2016), and carries the risk of taking the scenario from the field of experiential learning to the domain of propaganda.

This is connected to the fact that our knowledge of the world is always incomplete (Wilson 1977). Information gaps are inevitable; in artificial worlds, even more so, as the designers are unable to define everything in advance (Harviainen 2012). Likewise, with virtually no escape from the physical environment of the play and its content, players can feel anxious or even threatened, in both the good, exciting and the bad sense (Schick 2008). In the flow of play—even with safeguards—knowing how far things may go is hard to predict.

Beyond content and environment, a key question is also: Who is the simulation supposed to affect and how? Sandberg (2004) speaks of playing to a first-person audience, but what is its focus? An educational school larp is meant to teach the players (Harviainen & Savonsaari 2013). A Happening's primary audience is the participants themselves, even as others may also be affected (Kaprow 1966). Boal (1995), in turn, used role-play alongside theatre to influence passers-by—an approach others have applied to, for example, living museum design (Snow 1993). How deeply are non-player characters' players role-playing, if they are first and foremost supposed to advance the play of others (Stenros 2013)? This is part of the wider question of optimizing physical simulations' design, which we will briefly explore

4. APPLYING PRESENCE TO DESIGN

Physical simulations have been, as mentioned before, deployed in fields such as military and crisis exercises (e.g., Lloyd 2007; Bowman 2010; Vanek 2012), and medicine and nursing (e.g., Standiford 2014), in addition to more playful contexts such as larps. The better the situation corresponds to the goals of the simulation and the facilitation of functional, realistic-seeming interaction, the better. In principle, therefore, the rule is that the space should support and foster the fantasy (Turner and Harviainen 2016). The Nordic "360 degree aesthetic" exemplifies this (see Koljonen 2007), as does the Central European

tradition of making sure that scenic props and settings look the part (Bienia 2016).

Staging a larp or simulation can be used to make sure the participants are exposed to an environment, in addition to a topic. For example, a *Vampire* larp run in a former asylum probably creates a more effective mood than would a cafeteria, but a larp run in a library also guides the players to peruse the collection (Harviainen 2013). If the topic and the environment complement each other, all the better, as is the case with e.g. many museum re-enactment larps. As a general idea, the situation should contain both enough familiar elements to help participant acclimatization and enough new to create both the sense of novelty and to enable actual learning to take place (Van der Heijden 2004).

Content and style should also correspond with each other. The game's topic, playing emphases, and interpretational goals need to be sufficiently aligned, or purpose is lost. For example, if a serious horror larp is played as a comedy or a military simulation as a god-mode rampage, it does not serve its purpose. Nor is it likely to be fun. While museum re-enactors can sometimes play comically with their characters outside of the audience eye (Snow 1993), there are limits. A medical or nursing simulation patient, for instance, will be able to ruin everything should they decide that this particular patient happens to be non-standardized and never speaks of what ails him.

What cannot be in this achieved through design can be handled through two tools: *briefings* and *debriefings*. This is the so-called 1-2-1 model (Henriksen 2008), roughly describable as preparation-action-debriefing, or a process of freezes and unfreezes. Briefings establish the tone and often clear away many problems of missing information. Debriefings, in turn, not only anchor and ascertain learning lessons (Crookall 2010), they also establish a central interpretation (or a few) from the mass of possible options (see Lehrskov 2007).

With these design properties also come some crucial challenges. Following Juul (2010), we can claim that the physical body's presence within the game or simulation is the ultimate mimetic interface. Effectively, what you can touch, you can touch, and so forth. Most important though, is the fact that the naturalness of the "interface" makes the actions seem more normal and realistic, and can feed somatic memory formation, at least eventually. However rules, increased access, cross-gender/species/ability/etc. play, and so forth, all blur the interface once more. Because of this, designers seek varying levels of optimization: to enable more safety, access,

and/or skills that the players themselves do not possess means lessening the impact of the simulation on the participants' minds. I will return to this point, but before that, some spatial and perceptual issues need to be addressed.

Presence within the play means having a singular viewpoint. The participant is where they are. This brings us to the facets of the first key factor: favoritism, missing out things, and the Fog. I suspect that almost everyone who has ever played a court game or a Vampire larp will recognize the way in which design structure favors characters of higher status with more things to do. Under realistic settings, power might be delegated, but oftentimes in games and simulations people take advantage of playable content. This creates an "if you are not in the room, you are out of the action" effect, known to drive away many players in the long run. Sometimes designers even foster this by intent, by for example spending large parts of the budget on game areas that only a handful of "favorite" player will be able to experience. More often than not, that feeds just the sense of favoritism, not of "wow."

Likewise, if you happen to be on the other side of the forest when the great battle takes place, it sucks to be you. It may be realistic, sure, but not very much fun to miss out things, and is a sign of bad design (Widing 2010). This, alongside with what Fatland (2005) calls the "Fog of Larp"—the way which news, or even game master rulings, cannot equally reach all in the play space—creates multiple truths within the situation, which can be a distraction for all concerned, or even ruin the whole thing for some participants. Similarly, not every designer takes care to calculate the systemic effects of design decisions, which means incentive webs may be lost in action (Salik 2015).

Secondly, and tied to the Fog, is the fact that no matter how many instructions are given and how many meta-rules established, we as humans have a tendency to react on a "what you see is what you get" basis. Therefore, we may need to overcome a mental hindrance when we see a non-skinny elf or a tall or non-hairy dwarf (Habbe 2012), or have to deduce whether something or someone is actually part of the play (Montola, Stenros and Waern 2009). This is also a key strength—whenever people are able to pass such barriers, they have a chance to explore roles, tasks and situations to which they would not normally have access (e.g., Musleh 2015; Vorobyeva 2015b). In play, things do not denote that which they would normally mean (Bateson 1955), and this enables us to simulate safely, but in physical play things such as adrenaline still kick in (Gade 2001).

In optimal cases, we can even take advantage of that in simulation or play design (e.g., Nordgren 2008).

We instinctively seem to switch between in- and off-play (Vorobyeva 2015a). The role protects us as an alibi, but it can also lead to distanciation and dissociation, especially since we know the situation is not real. This is something that has been observed in training simulations (e.g., Laakso 2004; Lloyd 2007). If we have indexical clues, we are likely to treat them as indexical (e.g., Montola, Stenros and Waern 2009; Bienia 2016). Likewise, the knowledge that a risk, simulated wound or emotional encounter is not real means it is harder to translate experiential learning from simulations to other settings (Kim 1993; Lloyd 2007). In a sense, the participants are "there", but know that they are not really "in that situation."

Ethically, in turn, things tend to escalate in complexity the more the activity touches (literally or physically) on the player rather than just the character (Meriläinen 2011). Sometimes such an approach is part of the plan (Harviainen 2005), as in the case of bullying simulations and other designs that are meant to make participants feel, frankly, bad (Schick 2008; Montola 2010). In others, it is a side effect of bleed, and thus the organizers' responsibility in a sense at least to avoid (Kessock 2013; Saitta 2014).¹

Finally, it is frankly much easier to simulate conflict of some kind than it is to depict more mundane life (see Pegg 2011). The technique can be used, however, to explore everyday moments of stressful situations, such as prisons (e.g., Raasted ed. 2012) or insane asylums (Pedersen 2012). Even those cases, however, are in my experience more likely than not to stage the everyday life to take place in conjunction with an event such as a wedding (Stenros 2012; Rabah and Anderson 2015). To summarize up, it's easier to be present in the exceptional than the mundane.

5. CONCLUSIONS

As a basic rule, physicality in simulations presents us with a conflicting dilemma. On the one hand, participants' presence in the situation brings the activities and experiences to an embodied, sometimes even visceral level, something which few other tools can even remotely achieve. On the other hand, participants in a sense feel the impact of an uncanny valley of sorts: just because they are physically present, they have less to fill up with imagination, and thus can start to look for differences rather than similarities.

World knowledge is incomplete, and our sense of that is exacerbated in physical simulations. Missing-butcrucial information has to be conjured up somehow, as no absolute truths can be said to exist—especially since the Fog of Larp enables multiple facts to exist at the same time. Closeness to the real world facilitates the use of heuristically convenient indexical interpretations, yet the setting and rules may wish to emphasize that participants not do so. Therefore, I believe, the true impact of the form is only reached when briefings and debriefings are optimally deployed alongside the game or simulation proper. Without the briefing, interpretative frameworks do not align properly and the players will have to invent missing pieces or constantly disturb the play. Too light a debriefing, in turn, will leave multiple conflicting interpretations and possibly even a strong sense of dissociation from the content. Or it may lead someone to dominate the post-deployment interpretation too much. And a very strict debriefing will, like that dominant persona, feel arrogant, limiting and even tacked-on.

The clever debriefing, however, plays on the very dissonances that that situation provoked. It discusses the uncanny valley of physical play, fostering discourse on what in the simulation felt simulated, what created possible bleed and to which direction, and what seemed realistic and what one-sided and blocked by the Fog. These are games of multiple interpretations, so we owe it to ourselves to discuss those interpretations and find the ones that we as designers, organizers and players find the most valuable.

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¹ Whether the current culture of extra care and trigger warnings will prove more a tailored advantage or a disruption for play remains to be seen.

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BIO

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Playing Political Science: Leveraging Game Design in the Post-Secondary Classroom

Popular abstract: *The Multiplayer Classroom* describes how a course in computer game design can be based on the same structure as a computer game (Sheldon 2012). Students play this game through the entire term. Sheldon also had students take on roles based on Bartle's taxonomy of player types (Bartle 1996), leveraging it to structure group work and accommodating different learning types.

During the Winter term of 2015, I taught two courses in Political Science at the University of Calgary: Topics in Comparative Politics in the Industrialized World and Introduction to Public Administration. Having previously leveraged gamification principles in teaching extensively (Hellström 2015), operationalizing Sheldon's design was a logical next step. This paper describes that effort, including challenges and opportunities for how Sheldon's design can be used. The design requires a complete change in the point of departure for the course, from the implementation of Bartle's Taxonomy, to how the curriculum is presented to the students through potentially asynchronous game events rather than through the linear structure of the classic lecture series. These techniques will be familiar to those who are acquainted with computer games or live action role-playing (larp). The paper will also include some reflections on potential for future research in terms of how game-based learning could enhance the post-secondary political science classroom.

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1. INTRODUCTION

There is a growing discourse concerning the utility of games and gamification for learning. In *The Multiplayer Classroom*, Lee Sheldon describes how he delivered a course in computer game design as a computer game (2012). In his class, students form groups and take on roles inspired by Bartle's Taxonomy of player types, which then structures group work and accommodates different learning styles (Bartle 1996). I have used gamification and game-based learning extensively when teaching Political Science at the post-secondary level since 2013. Sheldon's design was thus interesting for me.

This paper describes my first implementation of a design based on Sheldon's work. It was used on two courses at the 400-level during the Winter Term of 2015. 463: Politics in the Post-Industrial States had two classroom sessions per week and about 80 students. 451: Introduction to Public Administration was an evening class with about 20 students. The position was an emergency appointment and both courses had to be designed at least partially from scratch.

The paper starts with an overview of a selection of scholarly literature on gamification and game-based learning contextualizing my previous experiences of these practices. It then discusses Sheldon and his use of Bartle's Taxonomy to provide a point of departure for how I operationalized them. Finally, the paper summarizes the outcomes, including what went right and what went wrong.

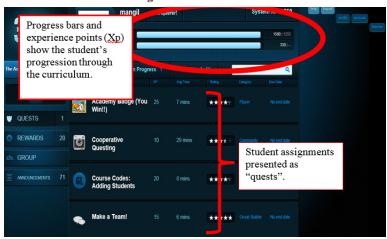
2. GAMIFICATION AND GAME-BASED LEARNING SCHOLARSHIP

Drawing upon game-design in teaching increases student engagement (Larsen McClarty, et al. 2012; Mochon and Norton 2012; Papastergiou 2009; Hattie 2009; Gee 2007; Prensky 2005; Bates and Poole 2003). The web tool 3dGameLab (3dgamelab) was developed to facilitate gamification (Deterding, et al. 2011) and game-based learning (Sheldon 2012). The student user interface is inspired by computer games, as shown in Figure 1 below. It provides instructors with functions that facilitate fast feedback on submitted student assignments and increased transparency in grading, both of which are important for enhancing learning (Prensky 2005; Sadler, 2005).

I have used this web tool since 2013 to teach courses at the 200 to 400-level, class sizes varying between 8 and 75 students. The syllabus explains the design to students like this:

Completing quests: These tasks have no due date for submission, giving students maximum time to plan their own work. When a quest is completed, it will be submitted to an instructor for approval. The instructor will review the work. If the requirements have not been fulfilled, the instructor will return the quest to the student with feedback on outstanding work that needs to be completed for approval. There is no limit to the number of re-submissions a

Figure 1: 3dGam



student can make. When a quest is finally approved, students will gain experience points, Xp, which reflect the learning achievement. (Hellström, Winter 2015)

Students start the term at 0 experience points. The assignments, often based on old exams and study questions from readers, were organized into quest trees, where completing one assignment revealed new options for students. The opportunity to choose their own paths through the curriculum provides students with agency, which is important for learning (Glantz 2014; Gee 2007; Bates and Poole 2003; Sorcinelli 1991). The quest trees were structured to first expose students to basic concepts, and then compel them to apply those, a design consistent with Bloom's taxonomy of learning (Krathwohl 2002).

For example, the student would first watch a YouTube video on types of Non-Government Organizations (Hellström 2013), worth 10 Xp. The format allows students to replay the lecture if needed (Owston, Garrison, & Cook, 2006). After that, the student would have to peruse the Internet to find civil society organizations and explain what type of social capital they generate, worth 50 Xp. Some challenging tasks, like writing an academic paper, could be done across several linked quests.

The asynchronous design allows students more power to schedule their work, which they appreciate (Garnham and Kaleta, 2002). Moreover, the game mimicking formative assessment design further empowers students by reducing the risks of failure (Zimmerman and Cunningham 2011).

Grades were calibrated based on the experience points and rewards the student accumulated during the term, illustrated in Table 1:

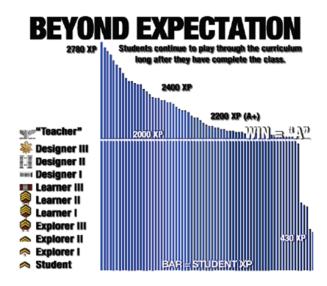
Having moved lectures online, classroom time could be used more effectively (Garnham & Kaleta 2002; King, 2002; Bauer 2001). I used it for live action roleplays (larps) to add authenticity to the course, which also facilitates learning (Larsen McClarty, et al. 2012; Prensky 2005). In political science, the Model UN constitutes a classic example.

I developed several stand-alone scenarios to explore different political systems. Students were provided an instructional video covering the system in question to prepare. Before play start, they were introduced to the roles and objectives of play. For the German Parliament scenario, it would be the party caucuses embarking on negotiations to create a coalition government. The class always ended with a ten or fifteen minute debrief structured by study questions to link their experiences to the curriculum. Finally, they had to submit a post play report through the web tool to gain the experience points for their role-play learning.

Table 1: Grade requirements, 230 Introduction to Comparative Politics, Global North, | Fall 2013, University of Alberta

Total XP	Letter Grade	Grade Point Value	Description
2500 + Academic	A+	4.0	Outstanding/
Writing Badge +			Exceptional
any 1 badge			
2000+ Academic	A	4.0	Excellent
Writing Badge +			
any 1 badge			
1750+ any 1 badge	A-	3.7	
1600	B+	3.3	Very Good
1500	В	3.0	Good
1400	B-	2.7	
1300	C+	2.3	Fully
			Satisfactory
1250	С	2.0	Satisfactory
1200	C-	1.7	Minimally
			Satisfactory
1100	D+	1.3	Adequate
1000	D	1.0	Minimally
			Acceptable
0	F	0.0	Failure

Figure 2: Haskell (2013) Figure 4: "Pre-service teacher candidates level up and remain persistent after earning 'A'," p. 4.



I, too, found that grades and enthusiasm went up significantly. Students asked for more curriculum and engaged in research beyond assigned readings. Some accumulated 2000 XP -- the threshold for an A grade -- in a matter of weeks. Of those, some kept working, like Haskell's students. Others disengaged, though I cannot say why. Possibly, they needed to focus on other courses. Class demographics do not allow conclusions about how age might matter for the perception of the design. Only two students might have been older than 50. Only a handful of the about 200 students I have taught over 8 courses expressed strong dislike for the design. Even so, more could be done. I felt I had insufficient intrinsic motivation. To find that, I turned to Bartle's Taxonomy and Sheldon's Multiplayer Classroom, presented below.

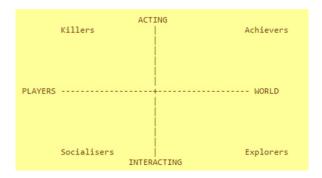
3. BARTLE'S TAXONOMY

This taxonomy divides players into different types depending on the type of game play they found attractive:

- Achievers aspire to succeed with gamerelated objectives, like accumulating great in-game wealth or rising to the highest level.
- Explorers want to discover as much as possible about the game world, for example how it functions and what makes it work.
- Community builders are primarily focused on interacting with other players and role-playing. Their goal is to build lasting relationships with them.

• Killers want to win over other players, showing their superiority by destroying their avatars or by competing and winning against them (Bartle 1996).

Figure 3: Bartle's Taxonomy, from "Hearts, Clubs, Diamonds, Spades: Players Who Suit MUDs" (Bartle 1996).



4. SHELDON'S MULTIPLAYER CLASSROOM

In *The Multiplayer Classroom*, Sheldon presents one design to structure the curriculum as a game (2012). Like I did, he made grades a function of accumulated experience points. However, he also drew upon MMORPGs, as these have persistent worlds, which are highly conducive to a continuously immersive and engaging classroom experience, i.e. strong intrinsic motivation. Thus, students were assigned to teams with the task of writing the final project: a video game proposal. This design provided the students with a "plot hook" powerful enough to sustain engagement throughout the entire term, but also a clear division of labor and meaningful roles for each student to play within the team.

The number of team positions depended on the course iteration:

Table 2: Sheldon's team positions From Sheldon, 2012, The Multiplayer Classroom.

Early Label	Late Label w/ Sheldon's motivation	Responsibilities
Designer	Mage: there is magic in finding the	Went to the student
	inspiration for an idea that can	with the winning
	become a game	team proposal
Writer	Ranger: writers are explorers,	Writing the story of
	building the path for others to follow	the game
Producer	Necromancer: Sheldon provided no	Arranging
	motivation for the choice of new title	meetings, project
		progress,
		researching game
		development,
		budgets, and so on
Tech Lead/	Warrior: corresponds to the killer	Solving the game's
Programmer	type, as it involves destroying bugs	technical issues
Art Lead	Healer: art has soothing properties	Illustrating the
		document's text
Marketing	Later dropped	Marketing plan,
		studying the
		competition

I would argue that as the Marketing person has to think outside the box, work through subtlety and defeat the competitors through the creation of perceptions rather than brute force, the position might correspond to the rogue/thief character class, another classic role-play trope.

When describing these positions, Sheldon refers to Bartle's Taxonomy (2012, 101-102), and while there are more positions than taxonomy types, there are significant connections. The warrior corresponds to the killer, the healer to the community builder, and the ranger to the explorer, for example. He goes on to argue that "...your class is divided into these four types as surely as any MMO. When you design your game, it would be folly not to include equal gameplay for each of them" (Sheldon 2012, 102). When the game design accommodates different player types in this fashion, it also presents potential pedagogical benefits, as the recognition of differentiated game engagement is also an implicit acknowledgement that learning styles vary.

5. REDESIGNING THE COURSE INTO A MULTIPLAYER CLASSROOM

The engagement effect made me interested in drawing on Sheldon's use of "character classes" and continuous role-play. The diegetic setting varied considerably between the courses because of the different topics. In the comparative politics course, a course objective was to identify differences and similarities in public policy, discourse, and political culture between different post-industrial countries. This objective meant that it was highly conducive to situating student roles in different countries. Students were divided into workgroups that assembled around different tables in the classroom based on countries.

Table 3: Character class positions for <u>Poli</u> 463: Politics in Post-Industrial States

Position	Archetype/Responsibilities	
Politician	The Killer, wants to win and impose their will on	
	others.	
Administrator	An equivalent of the Community Builder in the	
	sense that this position was tasked with providing	
	support to the politicians.	
The Journalist	Representing the Explorer, the journalist had the	
	task of investigating what the other actors were up	
	to.	
Activist	Member of an NGO or a social movement, tasked	
	with being the voice of their members in politics.	
	Students had to pick three demographic groups	
	from a worksheet (inspired by the constituencies in	
	the computer game Democracy 3). The position was	
	the equivalent of the Thief, in the sense that activists	
	from interest groups often exercise influence in a	
	way that is not entirely transparent to citizens.	
Academic	The collector of knowledge, thus an equivalent to the	
	Wizard in Sheldon's design.	

The goal was to have each work group populated by at least one student in the role of one of the five "character classes," including an equivalent of the Thief archetype, which for this class became the character class positions depicted in Table 3.

The positions came with unique "powers" related to the generation of either political Capital or Scandal, which the Politicians needed to launch and implement policies.

In the Public Administration course, the roles inhabited public agencies on different levels of government. The design differentiated the "classes" by status point accumulation for career advancement:

Table 4: Character class positions for <u>Poli</u> 451: Introduction to Public Administration

Position	Archetype/status generating mechanism	
Director	The Killer led the group work, which	
	would gain status by expanding the	
	funding and mandate of the agency.	
Connector	Healer generated consensus for a	
	decision in the group.	
Investigator	Explorer acted as a user advocate and	
	gained status if the user's perspective	
	was adopted for programs implemented	
	by the organization.	
Activist	Thinking outside the box and getting a	
	new plan adopted by the others.	
Scholar	Conducting analysis, grounding	
	decisions in research and being proven	
	correct on evaluation of policy.	

The generation of XP was for the most part disconnected from narrative generation. Students gained XP by attending and submitting post-play reports. Also, the asynchronous, non-diegetic path through quest trees organized by topics was retained from previous courses.

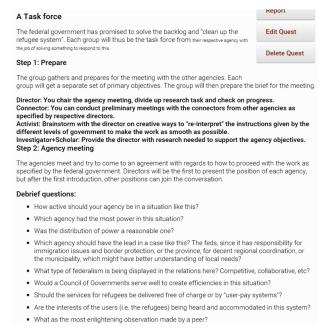
My rationale for this separation was that I wanted to keep a distinction between the student and the role; students may learn a lot when their roles fail to achieve their objectives. My design choice may be erroneous and it would be interesting to explore how narrative and experience point accumulation may strengthen each other.

Creating the continuous narrative met one principal challenge: how much power should students have over it? With power, they might turn it away from course topics. On the other hand, infringing upon their agency might undermine intrinsic motivation and engagement. Ultimately, the urgency of quickly producing content prompted me to do pick the latter for the sake of expediency. To create that content,

group workshops from previous courses were redesigned into role-plays, regardless of their narrative strength. As a result, transitions between topics in 463 were more contrived than I wanted. It was less so in 451 as I played the superior of the student roles who could assign them tasks. That course also had useful supplemental instructor material which included role-play scripts that were easy to adapt.

Each classroom session thus constituted an "episode" in the narrative. Figure 4 is the briefing for the "Episode 1: A Task Force" role-play in the 451: Public Administration course.

Figure 4: Episode 1 quest instructions for Poli 451: Introduction to Public Administration



6. EXPERIENCING OF IMPLEMENTING THE DESIGN: DISCUSSION AND CONCLUSIONS

Student reactions were consistent with previous experiences. The vast majority --about 80 per cent -- expressed strong enthusiasm for the design. That said, the course evaluation scores were the weakest I have received since starting with gamification and game-based learning. Previously, my average rating on the question "Overall, this instructor was excellent" was about 95%. For these two courses, the rating on Overall Instruction averaged about an 85% rating. In both courses, the Content Well Organized got the lowest rating, with student comments mostly focusing on the improved role-plays and quest instructions. No doubt, this reflects the time constraints of the emergency appointment.

In hindsight, the design was flawed. In 451, character classes and status accumulation system gained

little traction among students, likely because career advancement had little-to-no narrative effect. Classes in the 463 course had clearer motivations, and thus more meaning. However, the political capital gameplay remained unclear for students. Likewise, the railroaded episodes did little to enforce how the "character classes" affected inter-character dynamics. A potential remedy could be to change the point of departure for the course. The students' choice of character class could also determine their path through the quests.

Care is needed when re-designing the course. Instructors should be able to focus on assessing learning, which means little time for administering mechanisms like in-game status accumulation. Thus, such systems need to be simple to track. One possible solution which I have yet to explore is to let students design that as part of their course work, where they have to produce a system that is a decent political simulation. This technique makes the game design process itself a potential learning experience, while off-loading the instructor.

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BIO

Mikael Hellström holds a Ph.D. in Political Science. His primary field of research concerns immigrant community mobilization in labour market integration and public administration thereof. He began teaching at the post-secondary level in 2010, and started pioneering the use of gamification at his department in 2013. Hellström has been invited to present on his experiences with active learning by the University of Alberta's Faculty of Graduate Studies and Research as well as various conferences. He has also collaborated with the University of Alberta Centre for Teaching and Learning and the Arts Pedagogy Research and Innovation Laboratory.

Simulation and Character Ownership in Secondary-Dramatic Literature Education

Popular abstract: This case study examines the effectiveness of incorporating role-playing and simulation techniques into a high school classroom in order to improve student's mastery of the themes and structure of an American play. After incorporating three techniques to encourage student empathy toward the characters in Arthur Miller's The Crucible, the teacher compared students' grades during this unit to their grades earlier that year and to the grades of the previous year's students during the drama unit. Grades were measurably higher when the teacher applied these role-playing techniques. Both general education and special education students improved their analysis of the play's themes and structural elements, as measured in daily assignments, quizzes, and exams. Despite limitations in the data, such as limited access to the grades of the previous years' students and a relatively small sample of special education students, role-playing techniques are a promising tool for secondary educators in the dramatic literature classroom.

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1. INTRODUCTION

Live-action role-play (larp) and simulation have growing support in secondary and post-secondary education as tools to increase student engagement and to raise subject comprehension and retention. This paper seeks to explore how certain role-play techniques, specifically three techniques related to character ownership, affect student comprehension in a high school literature class. Do role-play techniques measurably improve student mastery of statemandated knowledge and skills over the course of the unit? Previous research suggests that simulation can be used as an educational tool. "Certainly, the idea of using simulation and videogames for educational purposes is far from new..." (Frasca 2004, 89.) There is even evidence that simulations involving role-play specifically aid Language Arts education. "Edu-larp is also exceptionally useful in the study of Language Arts, including public speaking, secondary language acquisition, and exploration of literature" (Bowman 2014, 117).

I teach high school American Literature, which includes drama, poetry, fiction, and non-fiction reading, and a variety of writing and speaking skills. American Literature is a required class for juniors, seniors who did not pass it as juniors, and sophomores who plan to graduate early. Included in my class are ESL students, who are learning English as a second language, and Special Education students, who have some diagnosed learning disability or medical condition that interferes with their learning. In other words, I teach all kinds of students at the school except the subset of Special Education students who have severe enough disabilities that they cannot function in a classroom with general education students.

Since the drama unit in a high school English class, in which students read aloud from a famous play, already resembles a simulation, I decided to integrate role-playing techniques into that unit and measure how those techniques affected my students' daily grades and exam grades. During the drama unit, students imagine a fictional scene, speak as characters in that scene, and react as both audience and co-participants with their classmates. To these simulation elements, I added three role-playing techniques and then measured their grades to see if those techniques helped the students.

2. INSTRUCTIONAL CONDITIONS

In the United States, in order to evaluate whether a teacher has succeeded in teaching a class, state education agencies assign lists of specific skills and content for each class. For American Literature in Texas (according to the Texas Education Code, Chapter 110. Texas Essential Knowledge and Skills for English Language Arts and Reading,) there are two skills that directly pertain to the drama unit, TEKS 2, A through C, and TEKS 4. These skills are listed in subchapter §110.33. English Language Arts and Reading, English III (One Credit), Beginning with School Year 2009-2010. They are as follows:

"(2) Reading/Comprehension of Literary Text/Theme and Genre. Students analyze, make inferences and draw conclusions about theme and genre in different cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding. Students are expected to: (A) analyze the way in which the theme or meaning of a selection represents a view or comment on the human condition;

(B) relate the characters and text structures of mythic, traditional, and classical literature to 20th and 21st century American novels, plays, or films; and (C) relate the main ideas found in a literary work to primary source documents from its historical and cultural setting."

"(4) Reading/Comprehension of Literary Text/Drama. Students understand, make inferences and draw conclusions about the structure and elements of drama and provide evidence from text to support their understanding. Students are expected to analyze the themes and characteristics in different periods of modern American drama."

I measured my students using exam grades, including written tests and quizzes, and daily grades, including worksheets, group discussions, and answers to teacher's questions aloud. Success would mean improvement in scores for TEKS 2 and 4 for all the demographic groups in class.

Texas Education Agency reports that during the 2014-2015 school year, Terrell High School had 1,082 students enrolled. Of these, 54.5% were male, 45.5% were female. The ethnic breakdown as reported by the students' parents was 42.1% Hispanic, 29.5% White, 25.0% Black or African American, 2.5% Two or More Races, 0.5% Asian, and less than 0.5% American Indian, Alaskan Native, or Native Hawaiian. In other words, the students are mainly from three ethnic groups, Hispanic, White, and African American. These students attend Terrell High School in Terrell ISD, an independent school district in Texas. According to Texas Education Agency, during the 2014-2015 school year, 74.1% of students in the Terrell ISD school district qualified as economically disadvantaged. Over two-thirds of the students in this district (67.5%) qualify for free lunch based on their low family income. In other words, the students at this school mostly come from low-income families.

3. ANALYSIS OF THE DATA

As Bowman and Standiford (2015) have shown, edu-larp can increase motivation and interest and perceived competence in the subject. The three role-play techniques I incorporated this year are a successful use of edu-larp-like elements if they quantifiably help me to teach TEKS 2 or 4 (or both) to more of my students. To be considered a success, there must be data that shows an increase in student

daily grades and unit exams after I used these techniques.

During this unit, my students, who are high school juniors, and I read aloud an entire play, Arthur Miller's *The Crucible*. As we read the play this year, I did the following: First, I assigned the same students to read the main three parts for the whole play. In each period, the same person read John Proctor every day. Likewise, with Abigail Williams and Elizabeth Proctor. My intent was to encourage the students to feel a sense of ownership for their character. It also helps the rest of the students remember a character when the same student reads him every day. If Curtis always read Abigail, students should remember what Abigail did yesterday.

Second, at least every other day, I interrupted the reading to ask students what one of the characters should choose to do next. In other words, I asked them to empathize with a specific character and hypothesize what they would do next in that character's situation. My intent was to encourage students to analyze the events of the scene and the motivations of the characters. This game element relies on the importance of choice to character development and to game play. As game theorists Hindmarch and Tidball (2008) explain, "All variations on gameplay stem from two core types of alterations: expanding choices and restricting choices." If I ask students whether John Proctor should admit to adultery in order to stop Abigail's witch hunt, I am challenging them to empathize with John.

Third, when reviewing or explaining events in the plot of the play, I frequently switched the name of the character with the name of the student reading that character. For example, instead of saying, "When Abigail Williams accused Elizabeth Proctor of being a witch, what did John Proctor do next?" I would say, "When Miguel accused Carla of being a witch, what did Tyson do next?" My intent was to encourage students to increase comprehension and retention by associating the fictional characters with real, visible people. In role-playing circles, at least in my experience, it is common to refer to someone both by their real name and their character name. This casually reinforces the player group's emotional connection to the fictional world.

I chose these particular role-play techniques because I wanted to treat the dramatic readings more like playful simulations, and less like assigned in-class readings. This was not a gamification of drama in the sense of an achievement system. It was instead a gamification in the sense that it encouraged the

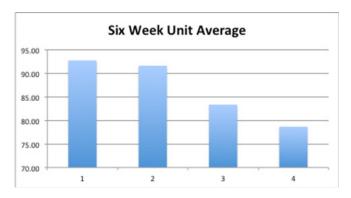
students to be playful and engaged. (For games as play, not points, see Reimer 2011.) We treated the play less like a quiz and more like a collaborative story. (Compare to how Hergenrader (2011) used role-playing to teach collaborative fiction writing.) In other words, I theorized that the students would learn the stage play better if they were allowed to "play" with it, according to Zimmerman's (2014, 159) definition of play, "Play is the free space of movement within a more rigid structure. Play exists both because of and also despite the more rigid structures of a system."

In order to evaluate the students' grades most effectively, I would compare their assignments to the previous year's. However, there is a limitation in the specificity of my data. Our school changed grading systems this year, so I am unable to access specific grades from last year at a student-by-student level. I have instead a quantitative comparison of how the students did overall in each unit, e.g. whether they scored higher in the Drama Unit than in Research or Poetry. I also have a qualitative sense as their teacher to how well they understood the material.

According to this qualitative and limited quantitative measure, the grades for the Drama Unit this year were noticeably higher than other units. This is usually one of the six week units when students have the lowest average grade. This year Unit 2 had the second highest average grade (See Figure 1. Each blue bar represents a six week unit on a different English subject. The Drama Unit had the second highest grades.) The only unit in which students scored higher was Unit 1, short stories and historic nonfiction, which students spend most of sophomore year practicing. Given that students had not studied drama during the previous year, they did remarkably well on tests of TEKS 2 and 4. The data shows that when students can understand why characters are acting a certain way, when students feel invested in the story, then reading the play is more fun and therefore, more relevant. "But regardless of what method, motivation, or type of interaction the author chooses, the real heart of the interactive narrative is the relevance of the story to the people who are doing the reading." (Meadows 2003, 231).

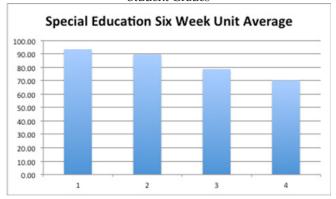
One immediate check on that success would be if the special education (SPED) students' grades lagged drastically behind the general education students. Role-play techniques that do not work for SPED students would be of limited value, since these are among our most at-risk students.

Figure 1: Six Week Unit Average of Student Grades



However, this was not the case. SPED students did almost as well as general education students during the drama unit. On a scale of 0 to 100, where 70 and above is passing, there was less than a 5% overall difference in grades between SPED and general education (gen ed) students. That is remarkable. (See Figure 2. Again, each blue bar represents a six-week unit of study).

Figure 2: Six Week Unit Average of Special Education Student Grades



The most surprising result is how well the students did on their quizzes and exams during the drama unit. I expected the role-play techniques to help students' daily grades, since role-play is fun, and students who are having fun tend to do better on their daily work, e.g. worksheets, reading aloud, group discussion, etc.. However, students also did well on their exams. They did almost as well on the toughest drama assignment, a unit final exam, as they did on an average assignment in any other unit. Students' average Drama Unit test grade was only 2% lower than their average grade for the whole year. (Students are graded on a scale from 0 to 100. 70 and above is passing.) Once again, the SPED students' grades echo the general education students' results. Both groups scored only 2% lower on their drama exams as they did on regular assignments the rest of the year. That is very unusual.

In conclusion, based upon the measurement of average daily and test grades, which are based on student mastery of TEKS 2 and 4, both general education and SPED students did better than expected during the drama unit when I added three role-play techniques to the classroom.

4. LIMITATIONS OF ANALYSIS

There are at least three limitations to the strength of the data and to the firmness of our conclusions. First, there is no specific data from last year's students with which to do a point by point comparison. Because the school district switched grading software this fall, I no longer have access to the grades of last year's students. That essentially means that I don't have a good control group to quantify how helpful the role-playing techniques are. What I do have is the relative ranking of each six-week unit. Last year's students' scores for drama were the second lowest of six units. This year, their scores are the second highest of the six units.

The second limitation to the strength of the data is sample size. I have data for 150 high school juniors. This is a non-trivial number, but it would be even better if the results included students from other schools using the same three techniques.

The third limitation to the strength of the data is the sample size of the special education (SPED) students. Although their data is a good check to make sure that the role-playing techniques are helping all students, even our most at-risk, it is hard to make strong conclusions about how these techniques affect SPED students, since I have less than 20 in my classes.

CONCLUSION

The data is encouraging. Students demonstrated a quantifiably better mastery of the required TEKS when learning was treated more like a game. Learning games are fun, and they encourage a "special reality" (Balzer 2015). When students inhabit that special reality, when they imagine themselves as the characters in the play, they gain an intrinsic motivation (as described by Bowman and Standiford 2014) that translates into better test scores for both general education and special education students. I recommend encouraging students to identify with characters in the story, asking them what characters should do next, and interchanging names for a student and her character. These techniques improved student learning.

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BIO

Josh T. Jordan is a high school English and ESL teacher in Texas. He is the designer of analog role-playing games such as *Heroine*, *Doll*, and *Singularity*. He earned Bachelor's degrees in English Literature, Classics, and Linguistics from the University of Iowa and a Master's Degree in Theology from Dallas Theological Seminary.

One Way to Create Educational Games

Popular abstract: Improv games, which are used to train actors in how to do improvisational theatre, may be used to train other professions as well. The games assist in the development of simple skills and also give context for the skills' use. The director chooses a series of these quick and simple games, tailoring the games to the already existing skills of the students. The skills built through the games may assist with further exercises, which may vary widely depending on the field in which they are taught. Instructions on how to create improv games, and hazards to avoid, are also included, should a teacher or director decide to create some games.

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Academics often make theoretical connections between their own fields, such as sociology, and theatre studies (Goffman 1979, 124). So why not take more than theoretical inspiration and take theatre training methods as well? Improv games teach how to socialize better through practicing aspects such as talking, manners, observing or listening, without eliminating context (Spolin 1963). As a training method, improv games were first designated as such by Viola Spolin, but she credits Neva Boyd for their actual origin (ix). Spolin has expounded upon improv games, but she has mostly explored it from the field of theatre studies.

Improv games, at least the simple ones, are not improvised theatre like Commediea dell'arte or the Atellan Farces. Instead, they are a type of short exercises meant to build the actor's skills towards such roles (Spolin 1963, 5). While these games are not meant to be humorous, laughter may arise (Johnstone 1979, 31). Instead of dwelling on the humor, each exercise's focus is on the situation. Despite seeming simple, improvisation is actually very difficult to do well. Society trains us to behave in certain ways, and it can be very difficult to break that barrier (Goffman 1973, 120). Goffman examines these massive amounts of contextual information as frames, which is a shortened version of frameworks (Goffman 1979, 10-11). Thus, a person's behavior, clothes, the setting and the audience can all provide context for interpretation. For example, you see someone standing perfectly straight and dressed in a business suit. That is not enough information to frame the situation. Where is this person and what is happening around them? The interpretations may vary greatly depending on whether you viewed the person in a business meeting or on stage in a play (Goffman 1979, 133, 247).

It is important to note that, while both roles are acted, the former is usually considered to be more

serious in its potential consequences (Goffman 1973, 17). Usually people find one or the other more difficult. Improvising well involves cultivating a range of skills to overcome this sort of difficulty (Berger 2009, 118). When I say skills, I use the word in its broadest definition, including a range of teachable behaviors as well as how to accomplish tasks. These skills are taught together, for acting does not lend itself to isolating individual skills. A listing of these skills include: body acting, voice control, storytelling, confidence, observation, memory, teamwork, problem-solving, cultural knowledge and many more that I have not listed. You may even recognize that a few of these are useful to fields beyond acting.

Skills take time to learn. Destin Sandlin (2015), from the YouTube channel "Smarter Every Day," was confronted with the task of riding a bicycle, but this was no ordinary bike. This bike turned left when you steered it right and vice versa. It took him months to learn how to ride this bike. What he learned was that just knowing how to do something does not equal understanding how to it. It takes time to build that knowledge into understanding. He even goes so far as to state that the same problem would be encountered by anyone else who tried to ride that bike, something that was proved true when he took his bike on a speaking tour. Similarly, the skills taught by improv games rely on understanding, rather than knowledge. It is perfectly valid for someone to come away from a session of improv games claiming not to have learned anything. Sometimes the game provides only knowledge, and it needs to be played repeatedly in order to turn that knowledge into skills.

Improv games are only games in the loosest sense of the word; often there are no winners. The line between games and exercises is neither well defined nor particularly relevant. Improv games consist of simple rules along with an end condition. Because it is rare for an improv game to last more than ten

minutes, usually a series of games are run. By extension, improv games are not live-action roleplaying games (larps), for a larp always involves playing a role. The closest relative to improv games is found in jeepform, but even it is different in that with jeepform, generally the designer creates the characters, while in improv games that job is given to the players (Wrigstad 2008, 12). Playing a character only occasionally appears in improv games because they focus on the skills and personality behind the creation of a role for that particular game. That said, improv games provide a great way to introduce new players to larping. Another feature of improv games is that they always teach something. Improv games are usually auteur-oriented, which means that there is no audience, only the actors and the director, but even this rule is often ignored (Berger 2009, 130). Spolin wrote Improvisation for the Theater and many other books exist, but, because of their popularity, it is easy to search the web for sites listing improv games.

These searches inspired me to try creating my own improv game. In the game Guess Who, players take turns silently acting out a role while the rest of the group tries to madly guess who they're pretending to be. The game continues either until the role is guessed or the players are stumped. When playing for the first time, a lot of players will choose to impersonate celebrities. How would you try to act like one of those people? The next time you watch people, keep that in mind. What did you get right? What did you get wrong? How would you revise your acting? On the other side, how would you recognize the differences if they were shown to you? Guess Who also teaches players to pay attention to facial expressions and body language, while ignoring other social indicators such as fashion. The game works best if the actor collaborates with the audience, shows them some piece of shared cultural understanding which is indicative of the character he or she is trying to portray. Guess Who can be used to encourage players to try characters they might not otherwise attempt (Johnstone 1979, 69). I created the game, but was inspired by the famous Russian director Stanislavsky and other improv games. There are many games similar to Guess Who, and reading them can provide ideas about how to change the game.

Spolin (1963, 255) notes that most people begin the same, but become more subtle as they gain experience, and more accurate depictions usually communicate better. After a while, they should be encouraged to attempt more general types of people. Think for a moment about children behave, or elderly people, drunkards, or even tourists. It may be made more difficult by getting more specific or possibly merging the stereotypes. Spolin was, among other things, a theatre director.

Just like classrooms usually involve teachers, improv games usually involve a director. Spolin occasionally refers to the role by connecting the two terms (Spolin 1963, 380). Directors are useful people, for they watch over the entire group (323). This overview lets them see if the rules were described sufficiently, or if someone needs to be pulled aside and given individual assistance. They may suggest variant rules to adjust games to the players' skill levels. It is one of the jobs of the directors to judge whether a particular game fits with a particular group of players. When a game has been mastered, a director removes it from the rotation and substitutes another game, but even experienced actors can sometimes benefit from relearning the basics (Atkins 1994, xv). If the aforementioned claim to not having learned anything comes up several times, perhaps the director needs to revisit his or her choice of games, as sometimes the lesson has already been learned.

The director is also in charge of keeping people in line. Humor can be fun, but it can also mask a sense of discomfort. Spolin writes about how other emotions, like apathy, can be used to hide discomfort (1963, 280). It takes a certain level of diplomacy to approach someone who exhibits humor, or indeed any other sign of unease. It may be, if the person is very uncomfortable, that they be allowed to leave without consequences.

I would like to take issue with a claim, made by Spolin, that creativity increases when people live in the moment (1963, 285). They are actually more likely to fall back on established patterns when behaving that way. Proof of my claim can be found in the name of the game called *Genre/Style Change* (Atkins 1994, 112). Genres are established patterns that emerge from a community, and they are easy shortcuts to create or modify stories. Players can be creative, but, in my experience, creativity most often occurs between games because that is when most people engage in thoughtful reflection. I say most often because the human mind is an amazing and unpredictable thing. The important thing to realize is that creativity is a skill like any other, and it improves with practice.

Improv games appear so simple, it may seem that practically anyone can design them, but there are hazards to watch out for. Improv games do not include any randomness in the form of dice or cards used in determining outcomes, an effect which Costikyan refers to as randomness (2013, 58). The

effects of these sorts of rules often exist in opposition to player skill (Elias, Garfield and Gutscherra 2012, 152). What would the game of Guess Who teach if you had to roll dice every time you wanted to make a guess? The game would devolve into chance, rather than being about acting. There are still elements of *player* uncertainty, because you never know what people will do (Costikyan 2013, 32).

Games will always end, but the players need the freedom to explore any idea that takes them towards that ending (Spolin 1963, 7). While certain games may ignore developing characters, others may focus on it. The key to making such a game is in how you shape the ending. It should be as uncomplicated as possible, and be shaped by the lesson which you desire to convey.

If I were to play Spolin's (1963, 109) *Who* Game with you, we would be involved in a relationship, but the nature of that relationship is only known to me. You must guess what the relationship and respond by acting as that type of character. Obviously, this could be over in seconds, or it could take several minutes, especially if you guess incorrectly. The director must watch both players closely in order to figure out whether or not the game is over.

For students who are experienced with both improv games and also learning their professed vocations, improv games may contribute to other exercises. For example, actors may actually put on a play (Spolin 1963, 319). Border guards are taught how to interrogate travelers. How much better would they be if they had practiced, through improv games, observing people and evaluating their behavior?

For a nursing class you could simulate patient diagnosis and triage. It would assist dealing with inebriated or unruly patients. All that would be needed is an actor or live action role-player to play the patient. It is the challenge of the students to react appropriately, regardless of the behavior of the patient. The skills of observation and cultural understanding developed through improv games combine well with the more practical understanding of what to do with a patient. Any extra details, such as pulse, temperature and internal conditions, may be provided by the director through side coaching. Because only the director and the patient know what problem the students will have to deal with, this scenario may also function as a test (Spolin 1963, 320). The director will likely downplay players' creativity to in order to focus on the task at hand, whatever it may be, but that doesn't mean that creativity should be discouraged entirely (20).

The ultimate goal of improv games is to teach. As any game designer can tell you, even the simplest of games can teach something, but there are flaws within this claim. Sometimes the lesson has already been learned. Sometimes the lesson is irrelevant to the players' lives. Other times the game provides only knowledge, and it needs to be played repeatedly in order to turn into understanding. Picking the games to be run is the director's job, and they all depend on the profession being taught. For actors this can manifest as teaching how to improvise, but other fields may use improv games towards other ends.

What I like about improv games because they are quick to play and teach and players can engage them without preparation. Furthermore, improv games can also help people who have very little interest in acting because they assist with the development of a broad range of social skills. Just because improv games have proven successful does not mean that they are the only way to shape an educational game. There are far too many educational games to make that claim. Nonetheless, they have accumulated decades of use in theatre schools and acting troupes by providing the skills necessary for good acting. Those same skills are often useful, but also often overlooked, by other more technically oriented education programs. It is time for those disciplines to create closer ties with their theatre schools.

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BIO

Graham MacLean is an independent academic interested in all sorts of analog (noncomputerized) games, including ones relating to theatre. MacLean is also a game designer, proprietor of Mad Unkie Games and possesses a Masters in Library and Information Science. An attempt at a PhD, focusing on game studies, was made, but after five years he burnt out and decided to instead pursue a career using his graphic design skills.

Teaching German Literature Through Larp: A Proposition

Popular abstract: German Studies as a discipline aims to make the form and content of its literary heritage relevant to today's undergraduate student. Yet traditional teaching methods of lecture and reading aloud do not emotionally engage them. Literature-based larps such as *A Nice Evening with the Family* (2007) and *Inside Hamlet* (2015) emotionally engage their participants with – and make an argument about – the major themes of their source texts, yet are too logistically complex for the modern university setting. Recent developments in nano-games and freeform, however, permit us to design games that directly address the scale and tight focus needed for the undergraduate foreign-language literature classroom. This article contends that games can be used to interpret literature in comparable ways to an analytic essay, and discusses two nano-games based on German literature already developed by University of Cincinnati students in Spring 2016: *Unrequited* (2016), an adaptation by Sarah B. of *The Sorrows of Young Werther* (1775) by J.W.G. Goethe, and *Babble-On* (2016), an adaptation by Ashton D. of Emine Sevgi Özdamar's *Mothertongue* (1990). These games exhibit specific interpretations of the texts in question, inviting students to interact with those interpretations, and then emotionally react to both the games and the texts themselves.

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Live-action role-playing games (larps) have recently spawned a sub-genre of game designed and suitable for the classroom environment, also known as "edularp." Edu-larps can teach history and science lessons, and open students' eyes to meta-level discussions of course content (Bowman 2014, Chen 2016). In addition, such games foster emotional engagement with the material, as students grapple with the affect-laden incentives and opportunities for empathy that edu-larps provide (Brown and Morrow 2015).

German Studies in the United States, meanwhile, has an urgent mandate to "offer a hands-on experience of [German] literature that is different from that encountered in lectures and teacher-directed seminars" (Schewe and Scott 2003, 76; Koerner 2012). Edu-larps as German literary adaptations are thus positioned to fill an important gap in German Studies for the 21st Century, as well as remaining in continuity with past German second-language acquisition pedagogy. This article presents the case of edu-larp literary adaptations as emotional system design for the German foreign-language classroom here in the United States. This work taps into my own history with larp adaptations, the pedagogical usefulness of the recent freeform nano-game design movements, and the two German literary edu-larps developed by my students based on J.W.G. Goethe's *The Sorrows of* Young Werther (Die Leiden des jungen Werthers, 2001) and Emine Sevgi Özdamar's Mutterzunge (1990).

In a recent post "How Board Games Got Literary" on Lithub, Tobias Carroll (2015) discusses the many recent entries of literary adaptations to be found

among board and games, including Enter the Passage (2012) and Moby-Dick, or, The Card Game (2013). As the range of expression of such board games increases, game designers have found much in the human literary heritage to offer. Where and how do role-playing games (RPGs) fit into this schema? The larp community has certainly expanded its range of expression into literary adaptation: J.K. Rowling's Harry Potter (1997-2007) books in College of Wizardry (2014-); Ibsen, Strindberg and Vinterberg in A Nice Evening with the Family (2007); Bram Stoker's Dracula (1897) in Last Voyage of the Demeter (2014-); and Charlie Jane Anders' Six Months, Three Days (2011) in the 2-person RPG 183 Days (2015). Each of these larps offer high-quality experiences that parallel and amplify those of their original source material.

Few of the aforementioned games have suffered the inevitable book-to-film adaptation problem namely, that the latter pales in comparison to the former (Hutcheon 2006). Rather, players continue to engage with the literary material months or years after the event. For example, players of *Inside* Hamlet (2015) publicly debate the relationship of tragedy and politics to one another, as manifested in the larp (Räsänen 2016). Literature-based larps invite emotional engagement with the source texts, as well as intrinsic motivation to analyze them more in-depth (Vanek and Peterson 2016). Since Espen Aarseth (1997) christened digital games "ergodic literature" and Daniel Mackay (2001) dubbed RPGs a "new performing art" nearly two decades ago, how do we integrate this often-messy, system-based,

literary-aspirant artform into teaching foreignlanguage literature and its interpretation? The answer: by teaching both the game adaptations of the texts and the student responses to those adaptations as interpretation too.

German Studies, my own discipline, has been deploying games to teach language and culture since the 1970s: the "Spiel- und Sportfest" once hosted by New Mexico State University (Delisle 1983) and Catherine Johnson's "Chaos auf dem Marktplatz" (Johnson 2007) constitute just a few of many examples. German textbooks are rife with role-playing activities ("Rollenspiele") to reinforce grammar and culture lessons. Yet many bridges remain to be built. On the one hand, German Studies has scarcely gotten wind of the edu-larp community, let alone the art larp scene: teaching German through drama exercises is still seen as cutting edge (Koerner 2012). On the other hand, both edu-larp and art larp focus their literary efforts on popular works from the Anglophone sphere -- e.g., Melville, Shakespeare, Rowling -- reinforcing dominant paradigms surrounding what we call "literature." Language-acquisition luminary Claire Kramsch herself comments on the fundamentally intercultural act of foreign-language acquisition and the objective of reducing student anxiety in the language classroom (Kramsch 1993). Why then do we abandon such a philosophy of intercultural play for the foreign-language *literature* classroom?

Teaching a German literary overview the past two years (2014-2015) has instructed me that there are several major hurdles to be overcome in student understanding of the material. Students tend to lack historical knowledge of anything prior to within a decade of their childhood; intrinsic languagelearning skills to note passages not understood and record vocabulary; the tools one uses for literary analysis; and the emotional engagement with or why one should care at all about - the texts themselves. In previous semesters, students have enjoyed vocabulary study-skill sessions as well as my dry historical overview lectures as I frantically tried to catch them up to speed. My objectives were, among others, to make sense of the literary periods of Romanticism or the New Objectivity, or render intelligible the angst of the Cold War. But such overviews presume that the text itself is already "enchanted" with student emotion, which I found to be not the case at all. Thus I now turn to RPGs as their own form of literary analysis intended to excite the imaginations of the students (Bowman 2014; Vanek and Peterson 2016).

Games and technology are not neutral objects (Kranzberg 1986; Kelly 2010). We cannot claim that

games remain above rhetorical positions or arguments about specific texts or aspects of human society (Bogost 2008). For this reason, I have artificially separated my game design work since 2010, largely based on German film and literature, from my teaching as a German scholar. My rationale to do so was the following: my game design for me served as a space of radical self-expression about the work in question and games in general, rather than a sterile climate in which to fulfill learning objectives.

For example, Metropolis (2011) was my interpretation of the Expressionist cinema and theater movement, holding that physical group dynamics could trump the interiority of characters any day. Posthuman's Progress (2013) brought Run Lola Run (1998) into dialog with the whimsical processes of improvisation; Lola can transcend the boundaries of human temporality, just as players can transcend the boundaries of predetermined game roles and consequences. The City of Fire & Coin (with Epidiah Ravachol 2013) empowered the players to be awesome pulp fantasy characters, while also reveling in the strangeness and emergent effects of having a city full of them. I did not bring such games into my teaching out of personal selfdefense from a litigious culture and my general awkwardness about having my students participate in my artform. That time has now passed.

With my research on RPG and literary studies continuing apace (Torner and Jara 2017) and inspirational edu-larps such as those by Kaisa Kangas, Anna Westerling, Malik Hyltoft and many others, German literary analysis can embrace edularp as a tool. This tool can both introduce *emotion* as a viable pedagogical element (Robinson 2005), as well as have students advance and debate arguments via the medium of nano-games, or short freeform larps that take under an hour (Miller 2015). Recent years have seen the rise of game collections such as the Golden Cobra (2014-), #feminism (2016) and the 200 Word RPG Challenge (2015-) that provide examples for how to make edu-larps that are short, yet flexible with regard to player count and still offer a complete game experience. Because I also teach a Game Studies course with some German majors, I challenged a few students to design edu-larps based on German literature using the above collections as their examples. Their games proved to me that we can indeed argue about the meaning of German literature edu-larps designed with different points in

My first example of student-generated larp materials is a nano-game by Sarah B. called *Unrequited* based on *The Sorrows of Young Werther*. Part of the *Sturm und Drang* movement in German literature, Goethe's

Sorrows is about a sensitive young writer named Werther who gets caught up in a love triangle with Lotte and Albert, choosing to commit suicide in the end rather than endure the torment of his desire for Lotte. The rules for B.'s game are as follows (translated from the German):

One of three prompts for everyone. Everyone stand up.

- Your name is Albert. Go up to someone who is standing by themselves. If they say a compliment ask them to marry you.
- Your name is Lotte. Stay where you are, if someone comes to up to you give them a compliment. If they ask you to marry them say yes. Stay next to that person.
- Your name is Werther. Find a person who is engaged. Tell them you are madly in love with them and if they don't love you back, you will have to eventually kill yourself. Stand next to them.
- ** The End The game is over when everyone is in a group of three. If you are left out, you will either find someone or die alone.

This admittedly brutal game is on the surface a simple sorting algorithm similar to Pit (1904) and other classic games: find the right people and then arrange yourselves into groups. Werther players will find themselves wandering around aimlessly until couples form, and then they will wind up standing nearby and sad, contemplating suicide. Albert and Lotte players may or may not see their characters land in a happy relationship, but are just following orders and expectations in society anyway. In less than five minutes and in a foreign language, the players of this game have also experienced an exceedingly cynical summary of the story's content. The interpretation aligns with a 19th century nihilistic view of Werther's situation: that the characters cannot help what they do, and that they will succumb to the malignant will of the world. That the game ends before Werther's suicide makes it all the more interesting, as Werther's interiority and vanity manifest themselves in bitter sulking outside of the couple that has excluded him. This symbolic representation is experiential, somatic, and based on presence.

The lack of safety mechanics and general asymmetries of the nano-game aside, *Unrequited* represents the content of the story without too much overhead or intellectual investment on the part of the players. Nevertheless, emotions provoked by the game

are undeniable. They have players invest in not only reading the original text with more interest and allying with certain characters, but also in critiquing the argument advanced by the game with respect to the source material. In this respect, players of the game are to examine it *laterally* as adaptation rather than *vertically* within a hierarchy of texts; there is no "original" that has primacy over its adaptation, only two texts that speak to each other on equal terms (Hutcheon 2006). B.'s nano-game engages not only with Werther, but also with love-triangle clichés. The reproduction of sad love triangles throughout the room is itself an aesthetic act in dialog with the literature the students will then discuss.

My second student-generated example is called *Babble-On*, by Ashton D. The game is based on Özdamar's *Mutterzunge*, a book by a Turkish-German author about the fluidity of language and identity. In the game, students are to divide themselves into groups of 3-5, with at least 4 groups represented. Each group then rapidly invents a family life in accordance with a series of questions (in German, of course): "What was home life like? Who are you in relation to one another?" After five minutes of spontaneous family creation, families are divided up so that members are meeting each other.

Once the game begins, each player will be able to use a noun only once, so words like "brother" and "sibling" are quickly exhausted. Players write down all the nouns they use up and continue to meet other families. Then, the scene cuts to Camp Patois, where people from all the different families intermingle and decide with whom they feel the most affinity by the end of ten minutes, losing their language all the while. The game is followed by a debrief, in which players talk about their feelings and begin to present their interpretation.

Very much in dialog with language-centered freeform games such as Sign (2015) and Dialect (2015) by Kathryn Hymes and Hakan Seyalioglu, Babble-On portrays a society threatened by the encroaching meaninglessness of speech and potentially redeemed by spontaneous communities formed at Camp Patois, where one presumes people will begin to invent new words to replace the ones they have lost. Ozdamar's text meditates on the loss of identity when one adopts a foreign tongue and how one begins to recall experiences from one language in another. Leslie Adelson (2005) has argued that Özdamar's texts help shed the nationalist tales one tells about cultural loss and national assimilation, preferring instead a transnational, trans-linguistic positionality. Babble-On holds that the family unit is the primary site where national and linguistic identities are formed,

and that communities beyond the family unit and with an eye toward the fluidity of language and cultural exchange are the future. German students not only have to invent new word constructions in a foreign language to talk about themselves and their families, but they can situate their own alienation as beginning language learners with immigrants and exiles from other linguistic communities struggling to find the terms for their new existence in other cultures. In other words, *Babble-On* is an edu-larp designed for empathy (Brown and Morrow, 2015), intended more to convey the feelings evoked by Özdamar's text than precise passages.

Suffice to say, these student-generated games constitute the mere beginning of a larger program. In the Fall, I will be teaching an overview of German literature class that introduces all of the texts spanning the German literary canon via nanogames. Eventually, this collection of classroom-ready materials shall be refined and transformed into a publishable book intended for the German Studies community much as Peter Yang's *Modern German Plays* (2015) or Reimer, Zachau and Sinka's *German Culture Through Film* (2005).

From this vantage point, edu-larp design for the advanced German literature classroom participates in a much larger tradition of integrating other media and role-playing exercises into the foreign-language classroom. The difference with these games, however, is twofold. One dimension is that students can see adaptation and argumentation as valid uses for games, and that one can then position oneself on either side of a debate regarding a specific game argument. The other dimension is that the students have had their emotions pricked by the edu-larps before they even confront the text itself, inviting engagement with the issues and voices that resound across the printed page: to bring not only literature, but literary argumentation in a second language, to life.

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BIO

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