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Author

Tafari, Menelik

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Games4Justice: Game Reports

Abstract

Multiple games were designed as part of a multi-year teacher research study on two programs were the Games for Social Justice (Games4Justice, G4J) Workshop, which served middle school students, and the Intergroup Dialogue (IDP) and Social Innovation Programs (SIP), which served high schoolers. These games included: *Pirate Oasis*, *Friendship is Magic*, *#SaveOurGirls*, and *XploreLA*. Modalities designed included Alternate Reality Game (Fujimoto, 2010, 2015; McGonigal, 2003, 2011); book code puzzles, and gamification (Burke, 2016; Sheldon, 2012); Forum Games & Simulations, pioneering an integration of Forum Theatre (Boal, 1995, 2007; Souto-Manning, 2010) and Simulations & Gaming (Crookall, 2010; Crookall & Oxford, 1990); location-based, geocaching (*Pokémon GO*, 2016); and two-dimensional fighting games (*Street Fighter*, 1987). These games were developed as part of a larger project for liberation, utilizing play-, game-, and design-based pedagogical approaches (Bang et al., 2015a; Bang et al., 2015b; Bang & Vossoughi, 2016; Flanagan, 2009; McGonigal, 2003, 2007, 2011), that cultivate value-creative (Makiguchi, 1936/2015, Makiguchi, 1989; Mokuria & Wandix-White, 2020; Goulah, 2015), critical (Freire, 2000; Glass, 2001), local (Souto-Manning, 2010), and global citizenship (UNESCO, 2015).

Keywords: Culture Circles, Human development, Social Innovation, Social & Emotional Education, Design-based Instruction

Executive Summary

Multiple games were designed as part of a multi-year teacher research study on two programs were the Games for Social Justice (Games4Justice, G4J) Workshop, which served middle school students, and the Intergroup Dialogue (IDP) and Social Innovation Programs (SIP), which served high schoolers. These games included: *Pirate Oasis*, *Friendship is Magic*, *#SaveOurGirls*, and *XploreLA*. *Pirate Oasis* is a six-week multimodal (McGonigal, 2003, 2011), Alternate Reality Game (Fujimoto, 2010, 2015; McGonigal, 2003, 2011), that gamifies ecological stewardship through team-building challenges, book code puzzles, and gamification (Burke, 2016; Sheldon, 2012) to involve the entire school in an effort to reduce trash and increase recycling. *Friendship is Magic* is a six-week Alternate Reality Game (Fujimoto, 2010, 2015; McGonigal, 2003, 2011) that attempts to gamify (Burke, 2016; Sheldon, 2012) Honesty, Loyalty, Laughter, Generosity, and Kindness through school-wide challenges, in order to engender a positive school culture through prosocial bonding, caring and support, and creating a culture of active appreciation to reduce anxiety about impressing others. *#SaveOurGirls* is a 3-hour workshop and Forum Game, pioneering an integration of Forum Theatre (Boal, 1995, 2007; Souto-Manning, 2010) and Simulations & Gaming, to combat human trafficking. *XploreLA* is a location-based, geocaching (*Pokémon GO*, 2016), two-dimensional fighting game (*Street Fighter*, 1987), designed to mobilize peers to local parks and other green- and play-spaces in park-poor communities in Los Angeles, like Boyle Heights, in order to reduce the risk of ailments like diabetes, cardiovascular disease, depression, obesity, and cancer.

INTRODUCTION

The data presented was collected for a teacher research study conducted from 2013-2017 on the implementation of culture circles, and play-, game-, and design-based teaching and assessment.

Both programs incorporated an altered Intergroup Dialogue Process, or was complemented by an Intergroup Dialogue Program, and integrated facilitative methodologies from encounter groups and culture circles. Students used these methodologies in concert with generative and iterative design-based approaches. In 2014, using the results from a previous study on utilizing games and simulations to support the facilitation of culture circles (Tafari, 2012), I designed and began to teach the G4J course for middle school students. The design of the G4J course was part of a larger project to facilitate a honing of participant's abilities for deep and critical inquiry through constructive consideration of multiple viewpoints and perspectives; prepare a new citizenry for pluralistic democracies through emancipatory processes that facilitate participants' realization of their own power as transformative democratic agents (Nagda, 2003) to prepare a participatory citizenry (Bang & Vossoughi, 2016; Björgvinsson et al., 2010; Clark et al., 2022; Powers & Tiffany, 2006); and serve the idyllic mission of society through cultural action for inclusion, ecology and advocacy (Makiguchi, 1989; Ikeda, 2010). These goals were aligned with our institutional vision that prioritized diversity, ecological stewardship, and social justice as core values. The course was originally Pass/No Pass and learning outcomes were all based on interpersonal competence and communication. The facilitative process used was based on previous work and research on facilitating student-designed culture circles (Tafari, n.d.), the facilitative process we used independently evolved to mirror Paulo Freire's cultural action program expounded (Freire, 2000). The Framework for Analysis was synthesized from this research and used to develop Games for Social Justice (G4J).

Four games were designed as part of a teacher research study conducted from 2013-2017 on the implementation of play-, game-, and design-based teaching and assessment implemented for this course. The study was later expanded to include two urban, independent, K-12 day schools with fewer than 500 and 100 students, respectively, and supported as part of a certification program in Serious Game Design & Research. These games were developed as part of a multi-year teacher-praxis study conducted from 2013 to 2017 on the application of *sōka* education (Makiguchi, 1989; Ikeda, 2010), critical pedagogy (Freire, 2000; Glass, 2001; Souto-Manning, 2010), and critical gaming (Flanagan, 2009; Kolb, 1984; McGonigal, 2003, 2007, 2011). Play-, game-, and design-based instruction were the primary frameworks implemented. The multi-year study focused on the application of these play-, game-, and design-based methods for human development and social innovation education. The study paid particular attention to the games designed in my workshop course on Games for Social Justice (G4J) at the first site, and a school-wide Social Innovation Program (SIP) at the second. The G4J workshop was taught from 2013-2016. This middle school workshop course was conducted for two consecutive hours, once a week, for a 15-week semester. SIP was conducted weekly for two consecutive hours year round, and data was collected from 2016-2017. Alterations in the design process between years, and then shifts in the program design at different school sites, are noted in the design reports.

During the G4J course, students participated in interpersonal and communication-based experiential learning, game design conducted through culture circles (Freire, 2000; Souto-Manning, 2010), and the coordination of a school-wide game to engage collaborative problem-solving. The course design was established upon previous research, and had a purpose of: (1) facilitating a honing of participant's abilities for deep and critical inquiry through emancipatory processes, and constructive consideration of multiple viewpoints and perspectives (Bang et al., 2015); and (2) preparing a new, participatory citizenry for pluralistic democracies who realize their

own power as transformative democratic agents (Nagda et al., 2003). For half of class, students would play various communication, teambuilding, and information-sharing games. During the second-half, students would design or coordinate a game-based experience for the entire school. By playing the game, community members improve their community. The games themselves attempt to solve a community problem.

In 2014, students designed Pirate Oasis, an ecological engagement, human development game, and the first developed for G4J. This collaboratively designed six-week multimodal game, Alternate Reality Game (McGonigal, 2003, 2007, 2011; Fujimoto, 2010, 2015) integrated team-building challenges, book code puzzles, and gamification (Burke, 2016; Sheldon, 2012) to involve the entire school in an effort to reduce trash and increase recycling. During the game, students roleplayed as steampunk pirates who inadvertently found themselves forced to be the heroes. The outcome of the game was a gamified solution to reduce trash and increase recycling.

In 2015, a group of students designed *Friendship Is Magic*, a six-week Alternate Reality Game (Fujimoto, 2010, 2015; McGonigal, 2003, 2007, 2011) that integrated team-building challenges, puzzles, and gamification to encourage prosocial bonding that addresses bias and bullying. Students choose mystical animal profiles, such as pegasus, unicorn, and others, and join into groups of five to play. One challenge is conducted per week during a six week program. Each challenge is based on spreading one of the ‘*Elements of Harmony*’ on campus. These Elements include Honesty, Loyalty, Laughter, Generosity, and Kindness.

2016 saw the design of *#SaveOurGirls*, a 3-hour forum game, simulation & workshop on combating human trafficking through public pedagogy. The experience is meant for 10-15 players and 30-60 audience members. This three hour Forum Game & Simulation (expanded from forum theater) (Boal, 1995, 2007; Carlson, 2003; Dahal et al., 2021; Maciel et al., 2021; Osburn, 2010; Wrentschur, M. (2021), includes (1) peer education and research about human trafficking; (2) a game and simulation about capturing human traffickers; and (3) a forum theater experience on helping survivors reclaim their freedom and reunite with loved ones. The first hour of the experience is dedicated to learning about a prominent example of human trafficking and how they will be enlisted (players and the audience) in an operation to save these girls. Players spend the second hour participating in an information sharing game with the audience to unveil one of the culprits of the human trafficking ring. A third hour is spent having audience-members step in as Players helping to escort those rescued back to their families. Debrief of the program includes discussion of preventing human trafficking and the services necessary to support survivors of this violence. (Tafari & Valverde, 2013).

In 2017, we established the Social Innovation Program using conclusions from the previous study about the G4J! course. In the Social Innovation Program (SIP), students learn about social innovation and entrepreneurship focusing on three main areas: personal transformation, strategy finding skills, and the recent history of change agents and movements within political, economic and sociocultural systems. In the initial design of the SIP, students are introduced to different sets of ‘grand challenges’ such as the White House (21st C. Grand Challenges), United Nations (Millennium Development Goals), and LA2050. SIP then reorients students to the inner-workings of the city of Los Angeles, including a variety of site visits and meetings with representatives of ports, transit systems, utilities, waste management companies, as well as policy makers in Los

Angeles County, giving students a basic understanding of the geography, people and systems that make up the area. After traveling around the greater Los Angeles areas, students select an environmental or social problem and join a team to develop a campaign of research-based, culture circle-designed projects, informed by the generative design of community experts and stakeholders. Through the campaign, students developed a Ross Valencia Park Redesign, a manual on how to create Pocket Parks in Los Angeles County, and the foundations for a geocaching game they entitled, *XploreLA*. *XploreLA* is a location-based, geocaching, two-dimensional fighting game that was designed by students to inspire their peers to explore their local parks and other green- and play-spaces in park-poor communities in Los Angeles, like Boyle Heights. *XploreLA* was designed as one of three projects organized to engage youth to access recreational sites near them via public transportation in the park-poor community of Boyle Heights.

METHODOLOGY

Data Collection

The primary data used to analyze the human development games, *Pirate Oasis*, *Friendship is Magic*, *#SaveOurGirls*, and *XploreLA*, include (a) student reflections on game-based challenges and the gamified course, (b) student analysis of design- and game-based collaborative problem solving, shared during class discussions; and (f) the designs of the games themselves. Culture circles, and generative and iterative design, were used to facilitate collaborative analysis and design of these game-based and gamified learning experiences. Ethnographically-informed (Charmaz, 1996; Holt, 2003) teacher research (Cochran-Smith & Lytle, 1993) framed the analysis of this data, which is presented as a teacher autoethnography and design reports.

To properly evaluate the effectiveness of the games designed, submitted work, cross-curricular projects, classroom observations, user testing, ethnographic analysis and player reflections were used as data. User testing analysis was framed by student reflections of game-based assessment experiences. The purpose of the evaluation was to inquire about the effectiveness of gamified, game-based and design-based methodologies to engage students in the course content, establish more applicability of course content to students' lives, increase prosocial bonding that reinforces community problem-solving, and create tools that are as good or better than traditional instructional methods.

THEORETICAL BACKGROUND

Culture Circles

Problem-posing education promotes the problematization of injustices and inequalities and the contesting of unfair realities (Souto-Manning, 2010). Joe Kincheloe (2004), included these central aspects as defining elements of problem posing, critical pedagogy: (1) Grounded in a social and educational vision of justice, equality, and the belief that education is inherently political; (2) Dedicated to the alleviation of human suffering, taking first-hand knowledge into consideration; (3) Based on generative themes (reading and writing the world through problem posing processes); and (4) Positions teachers as researchers, as learners, and as facilitators, where facilitation is focused on problem-posing and collaborative problem solving.

Culture circles come to life differently, but begin as thematic investigations into generative themes, where we contest language before it's internalized as distinct discourses that colonize our repertoires. These culture circles see teachers acting as facilitator-researchers (ethnographers), where participants read the world, critically analyze their positions in society, implement problem solving through dialogue, and engage in social action, or rewriting the world (Souto-Manning, 2010, p. 26).

“Culture circles start from the very issues which affect participants' everyday lives. Generative themes, which are common experiences across participants' lives or relevant to participants' realities, serve as starting points to problem posing. As problems are posed, participants engage in dialogue, considering a multitude of perspectives, and seek to move toward problem solving. As the group engages in collective problem solving, it charts a course for action at the personal and/or societal levels,” (Souto-Manning, 2010, p. 9).

Generative themes are identified from the community in which student-participants live. This connection to the real existential situation is crucial to enabling participants to use knowledge to reconstruct their lives and iterate alternative futures, or untested feasibilities.

For the codification of generative themes into limit situations, participants group their experiences, before collaboratively analyzing and identifying the root cause of their shared oppression (as limit-situations) preventing their liberation. To be identified as root causes: they must have a potential, realistic solution, are not defined as part of our ‘natural’ living condition or something that cannot be changed; are not a symptom of a larger problem; and must be based upon objective fact, not assumptions. Once these limit-situations are identified through collaborative analysis, participants begin to imagine the solutions that would address these limit-situations, or the limit-acts that would liberate them and others. In practice, these limit-acts are the enactment of cultural action to rewrite the world, or create an alternative future of untested feasibilities. This critical and creative process for cultural and political action is a constant unveiling of reality that stimulates true reflection and action upon the world.

Generative and Iterative Design

Our design of the following games was also informed by generative and iterative design. The culture circle process in application is an opportunity for generative and iterative design. Generative design (Hannington, 2007) is incorporated into the process to identify generative themes. As part of their investigation into generative themes, participants engage the community through interviews, surveys, research, and participatory design (Bang & Vossoughi, 2016; Björgevinnson et al., 2010; Clark et al., 2022; Powers & Tiffany, 2006). As participants begin sharing and reflecting about their lives, they also incorporate the insights of their community members into what they uncovered about their generative themes.

An iterative design process is incorporated as part of the ideation of an idyllic future. At the beginning of the process, participants are invited to imagine what alternative future they will create together. Participants return to this vision periodically in order to add more depth to how they envision what's happening in the future because of their cultural action, how we arrived there together, and how people are impacted by their shared cultural action and later, their newfound liberation. Participants also return to this vision as part of their processes to iterate cultural action. An iterative design process is incorporated as part of the ideation and implementation process of limit-acts and cultural action. To change the world requires us to reclaim that power, change our ways of world-making, and bring forth a new vision for the world. Participants revise their vision

of an idyllic future, before imagining initial iterations of campaigns for cultural action. Cultural action is undertaken to create an alternative future through untested feasibilities, and as each is tested, participants must return to iterate the projects of their campaigns once more.

Gamification

Critical play can also be seen in instructional design and design of serious games and gamified experiences. “Simulation, Gaming, and Language Learning” (1990) compiled and edited by David Crookall and Rebecca L. Oxford validate running simulation/games in educational settings, addressing the multiple layers of communication seen in play and games, and the ethics of using game-based experiences with varying levels of psychosocial risk. In “Playful Design”, Ferrara describes ways for designers to create game experiences in everyday interfaces, offers tips for better game development, and ways to prototype and test games for learning or action. “Reality is Broken” by Jane McGonigal (2003, 2007, 2011) and “Gamify” by Brian Burke (2016) introduce the concept of gamification informed by positive psychology; the essential need to align gamified goals with player goals; the importance of developing emotionally engaging experiences; and general best practices when attempting to gamify objectives for organizations. “The Multiplayer Classroom” by Lee Sheldon (2012) offers a more focused approach and examples for educators to gamify their classroom, in addition to, or in lieu of, the game-based approach to teaching. Multiple games designed for this project incorporated McGonigal’s “+1” approach to encourage student engagement. When introduced and performed in public spaces, these games can become public pedagogy disrupting and subverting every day experience.

While “Reality is Broken” by Jane McGonigal (2011) and “Gamify” by Brian Burke (2016) introduce the concept of gamification and different perspectives informed by positive psychology that reinforce ideas such as the essential need of organization goals being aligned with player goals; the importance of developing emotionally engaging experiences; and general best practices when attempting to gamify objectives for organizations. “The Multiplayer Classroom” by Lee Sheldon (2012) offers a more focused approach and examples for educators to gamify their classroom, in addition to, or in lieu of, the game-based approach to teaching. My only issue with these visions of gamified schools, is that they add a layer of gamification atop an inadequate schooling system that needs to be redesigned to focus and inspire student learning and engagement. An alternative classroom structure and assessment framework required a different understanding of course learning outcomes and freedom to apply a classroom imagined differently. For these games, McGonigal’s “+1” approach to gamified assessment was implemented.

Forum Games & Simulations

Augusto Boal, inspired by the work of Freire in literacy and culture circles, pioneered “Theatre of the Oppressed” (Boal, 1995, 2007), a complex of community-based educational theater methods for social change. Forum Theatre was developed in Latin America as a means of working popularly in theater to tackle the overriding problems of the lives of ordinary people. Working with groups of workers and peasants in literacy campaigns initially, and then more widely, Boal applied the theories of Paulo Freire to create a form in which ‘the oppressed becomes the artist.’ Forum Theatre offered more tools and frameworks to augment the ways in which we integrated critical pedagogy with games and simulations. This project expands upon the use of Forum Theatre ((Boal, 1995, 2007; Carlson, 2003; Dahal et al., 2021; Maciel et al., 2021; Osburn, 2010; Wrentschur, 2021) to include Forum Games & Simulations as novel teaching modalities for critical

sōka pedagogy (critical pedagogy and sōka pedagogy). Forum Games and Simulations offers a dynamic platform by which participants are empowered to actively engage with and become part of the game or simulation. Facilitated as an additional process or an intervention, Forum Games & Simulations allow time for audience members and student-players to switch places using tools from participatory theater with the intention of rewriting the world and the reality of the simulation.

***Pirate Oasis* (2014)**

Design Description

Pirate Oasis is an ecological engagement human development game, and the first developed for G4J. This collaboratively designed six-week multimodal game (McGonigal, 2003, 2011) that integrated team-building challenges, book code puzzles, and gamification (Burke, 2016; Sheldon, 2012) to involve the entire school in an effort to reduce trash and increase recycling. This game was developed for a middle school workshop course conducted for two consecutive hours, once a week, for a 15-week semester. While the class roleplayed as steampunk pirates, groups of students by grade competed to design and redesign their own ‘Pirate Ships’ based on their Goal-setting Course, the equivalent to their homeroom. Some game goals were for students to:

- Use peer-education to define and implement refuse/trash, recycling, and compost.
- Create positive school culture through prosocial bonding (Henderson & Milstein 2003).
- Reduce the amount of trash produced at school and at home.

and

- To reduce trash, and increase recycling and composting on campus.

The game includes six levels and a final battle, for a total of 10 hours of gameplay. The Alternate Reality Game takes place on *Pirate Oasis*, an imaginary world where humans escaped after their decimation of earth. Players roleplay as steampunk pirates who find themselves stuck between the corrupt government of the Imperial Colony and the aggressive uprising of the most impoverished and dehumanized on their new planet.

Pirate Oasis is a theatrical, Alternate Reality, Live-Action Role-Play game, paired with a multi-week gamified civics project on ecological stewardship. The class and project incorporated Physical Education games and variations of dodgeball and capture the flag, among others; structured experiences and simulations, such as an information-sharing game called *Murder on Board* designed by the teacher-designer; and a gamification system inspired by Jane McGonigal’s ‘+1’ approach to measuring gamified actions (Fujimoto, 2010, 2015; McGonigal, 2003, 2011). This Live-Action Role-Play Game is an example of classroom gamification and game-based human development instruction. Players researched and developed *Pirate Oasis*, which was a Live-Action Role-Playing (LARP). The game incorporated various teambuilding and communication activities to develop group dynamics internally for course participants, and collaborative analysis facilitated through culture circles (Freire, 2000) to design a gamified solution to reduce trash and increase recycling. Our class taught their peers about trash, compost and recycling, before comparing initial measurements of our daily and weekly production of waste and recycling. The class with the largest reduction in trash and the highest increase in recycling won. In the game, each graduating class had a steampunk, pirate-themed spaceship, and each ounce of recycling earned a modification for their respective ship. Those who participated most were given an opportunity to play a group game like dodgeball to earn additional modifications for their ship. The winners at the end of the semester earned a pizza party. Through a series of whole-class and whole-school missions, these pirates worked to steward an ecologically just future by

educating their peers about waste reduction and decreasing weekly trash output by an average of seven pounds over six weeks through recycling and composting.

Technical Review

The design of a multimodal, Alternate Reality Game (Fujimoto, 2010, 2015; McGonigal, 2003, 2011) that was played in different ways, (eg, small group design challenges and teambuilding, juxtaposed by ship design and community problem-solving for the school, offered a particularly distinct experience that is difficult to replicate across school sites. The multimodal elements of the Alternate Reality Game became a design goal that was pursued through subsequent iterations of the G4J course.

With another round of generative and iterative design, the team would have investigated more effective ways to group pirate ship teams for the school; and ways to involve students in a physical, instead of drawn redesign of their pirate ships. Whole-school missions were grouped based on graduating class since the student-designers initially thought that only a few students would want to participate sporadically. The game was successful enough to warrant having sustained groups of 5-10 students per team, before expanding to Goal-Settings Classes. Another solution that was discussed by student-designers was to get administrators to endorse the school-wide game, and put students in groups, though that did not come to fruition.

Results

Students were engaged by the narrative of the game, opportunities to compete in dodgeball variations and the possibility of a pizza party. Redesigning their spaceship using drawings lost their interest after the second week. Further study is required to determine the long-term impact of the project. The descriptions of the solar system, planet, game characters, activity introductions and a breakdown of the various challenges are shown in the appendix. Students were engaged by the narrative of the game, opportunities to compete in dodgeball variations and the possibility of a pizza party. Redesigning their spaceship using drawings lost their interest after the second week. Further study is required to determine the long-term impact of the project.

In the first iteration facilitating this course I failed to intervene quickly enough during an activity that immediately turned to misogynoir. When the group was challenged to find an imposter among them, and someone who had betrayed them, they chose their Black girl peer without rationale. That choice, and me not stepping in quickly enough nor bringing up race and gender during the debrief was taken as a profound failure as a critical sōka educator, both in design, for not having a clearer mechanism outlined for the game, so that the solution was more easily communicated, that multiple reminders to return to character backstories were repeated, and to discuss the solution with relevant roleplaying students, instead of relying on players to remember that they requested character's backstory be made relevant to the narrative of the game.

Friendship is Magic (2015)

Design Description

This collaboratively designed six-week Alternate Reality Game (Fujimoto, 2015; McGonigal, 2003, 2011) integrated team-building challenges, puzzles, and gamification to encourage prosocial bonding that addresses bias and bullying. The game includes five challenges based on what they defined as the *Elements of Harmony*. Honesty, Loyalty, Laughter, Generosity, and Kindness, and

a final boss battle where each team is required to exemplify the *Elements* to win. Some game goals were for students to:

- Establish community dialogue groups to provide more caring and support.
- Create positive school culture through prosocial bonding.

and

- Reduce anxiety about impressing others by creating a culture of active appreciation.

This game was developed for a middle school workshop course conducted for two consecutive hours, once a week, for a 15-week semester. Students are invited to play in groups of five as their own ‘Mane 5’, working together to summon the *Elements of Harmony*. For each of the five challenges, students are encouraged to secretly plan an action with their group of five. Their goal is to conduct their *Element* discretely and reflect on how planning, doing, and seeing its impact made them feel. Community members are encouraged to recognize other students for their acts of Honesty, Loyalty, Laughter, Generosity, and Kindness. At the end of each week, the individuals with the most recognitions get a chance to compete inside missions to earn various prizes. Teams with the most recognitions earn a reward for their commitment to the *Elements of Harmony* in preparation for the final boss battle.

The design of this game was inspired by *Undertale* and the television series “My Little Pony” to have participants question the ideal way to overcome interpersonal and collective conflict. *Undertale* is a role-playing video game where “you don't have to kill anyone. Each enemy can be ‘defeated’ nonviolently. Dance with a slime. Pet a dog. Whisper your favorite secret to a knight. Or, ignore this choice and rain destruction upon your foes” (Fox, 2016). While each activity provides a straightforward solution that has players confront the issue head-on, those solutions fail to acknowledge the dignity (or ‘humanity’) of each monster they engage, whereas other, more complex and involved solutions treat all parties with compassion. The game was never played by the class nor the community.

Technical Review:

The process design for this iteration followed the same steps as the previous year, but did not take initial group dynamics into account. This game was never played. Had this game been fully iterated, we would have played particular attention to creating challenges that can be overcome through force, finesse, or friendship.

Results

Upon completing the design for the game, students explained that they designed it as a joke, and did not want to actually play it. When given authority over their course content, the participants intentionally led themselves into an Abilene paradox. The Abilene paradox is a collective fallacy in which a group of people collectively decide on a course of action that is counter to the preferences of most or all individuals in the group, while each individual believes the preference to be aligned with the majority of their group. While three individuals who led the group dynamics felt it would be funny to make a ‘Brony’ themed game for the school, the rest of the group was thoroughly convinced by their arguments and design, and operated according to the ongoing consensus that was communicated until the game was fully designed. When asked why they continued the joke through to a finished design, these three individuals expressed that they expected the teachers to intervene, and take back authority over the course.

After the completion of the game, and with little time remaining to design and coordinate a new one, an administrative intervention suggested the reorientation of the class into a game-based history course, with learning objectives focused on humanities instruction instead of human development. Students then decided that they wanted to learn more about the Cold War by role-playing as spies in a series of games and simulations, we named: *Cold Warriors*.

#SaveOurGirls (2016)

Design Description

#SaveOurGirls is a 3-hour workshop and Forum Game/Simulation on combating human trafficking, designed for 10-15 players and up to 30 audience members. Students designed this forum game/simulation to be used for a viral campaign to bring focus to instances of human trafficking that need our intervention, such as the kidnapping of hundreds of Chibok girls in Nigeria by Boko Haram. This game was developed by middle schoolers for high school participants and their families. Participants and the audience play detectives investigating and catching a human trafficking ring in order to liberate multiple boys, girls, and women from slavery.

This three hour Forum Game/Simulation (expanded from Forum Theatre)(Boal, 1995, 2007), includes (1) peer education and research about human trafficking; (2) a game/simulation about capturing human traffickers; and (3) a forum gaming (Boal, 1995, 2007) experience on helping survivors reclaim their freedom and reunite with loved ones. The goals for student designers were for the workshop to:

- Educate the audience on the realities of human trafficking in the United States and abroad by naming and narrating the lives of imagined and real human trafficking victims.
 - Engage audience members by having them read a fact about human trafficking out loud, before joining the stage to represent a victim of human trafficking.
 - inspire audience members to feel personally connected to the freedom and safe return of those who have been trafficked.
- and
- Arm the audience with knowledge on how to identify human traffickers and how to advocate for at-risk populations.

This Forum Game integrates tools from Simulation & Gaming, Theatre of the Oppressed (TO)(Boal, 1995, 2007), sociodrama and diagnostic role play (Dayton, 1994; Telesco, 2006; Veiga et al., 2015), and participatory theater (Erel et al., 2017; Kaptani & Yuval-Davis, 2008; Mikkonen et al., 2020; Mienczakowski, & Morgan, 2011).

#SaveOurGirls was designed with students as part of a viral service learning campaign to educate the community on how to prevent and intervene upon human trafficking. While students did not have any prior experiences with participatory theater, during their design process, they described having audience members able to participate and step-in, just like the ‘Spect-Actors’ of forum theatre and sociodrama (Boal, 1995, 2007). Experiential learning theory was used to structure the conversational reconstruction, or debrief, for the workshop (Kolb, 1984). While the viral campaign was never launched, alpha testing of the experience was successful in developing a workshop that could be utilized in various ways by teachers. The design of this Forum Game incorporated various teambuilding and communication activities to develop group dynamics internally for course participants, collaborative analysis to understand the intersections of gender and ethnic

discrimination (Collins & Bilge, 2016; Crenshaw, 1991), and was facilitated through a culture circle (Freire, 2000). During the design process, students concluded that human trafficking is the intersection and the outcome of gender and ethnic bias.

Technical Review

Due to the high level of psycho-social risk of the forum gaming experience, the middle school students had to confront the fact that this game would not be appropriate for their peer group. At the onset of the design process, the Academic Dean opposed the plan to investigate the topic chosen by students, as well as the implementation of the workshop and forum game. Due to the democratic processes of the school, the Humanities Coordinator opted to support the teacher-research study, giving me permission to continue with a different supervisor. The Humanities Coordinator was interested in investigating the applicability of design- and game-based methodologies for her classroom, and evaluating me as a potential candidate for a more focused role as a Humanities teacher. While students were counseled against launching a viral campaign, alpha testing successfully developed a workshop and forum game that could be utilized in various ways by teachers.

Results

The Forum Game, *#SaveOurGirls* was coordinated for a group of students, their teachers, and parents, comprising a group of less than 35. During the debrief that included audience members, parents and community members expressed surprise at the emotional depth of the experience. One high school student spoke through tears during the debrief that she now felt she had a grasp of what human trafficking was, and ‘what to look out for when traveling [via airplane]’ (ethnography notes).

***XploreLA* (2017)**

Design Description

XploreLA is a location-based, geocaching, two-dimensional fighting game. Student-designers created *XploreLA* to inspire more young people to explore their local parks and other green- and play-spaces in park-poor communities in Los Angeles, like Boyle Heights. *XploreLA* was designed as one of three projects organized to engage youth to access recreational sites near them via public transportation in the park-poor community of Boyle Heights. One of the primary goals of the location-based game was to increase use of park space to reduce the risk of ailments like diabetes, cardiovascular disease, depression, obesity, and cancer. According to the County Department of Parks and Recreation at the time, Los Angeles had a median of 3.3 acres of park space per 1,000 people (LACDPH, 2016), well below the median of 6.8 acres per 1,000 people in other high-density cities (“*2016 City Park Facts...*”, 2016). Across Los Angeles County at the time of the campaign, 41 of the 262 neighborhoods had less than 1 acre of park space per 1,000 people (LACDPH, 2016). Children who live closer to parks have significantly lower rates of obesity by age 18 (Wolch et al., 2011). With schools reducing time for free play in playgrounds and reduced access to parks, youth in Los Angeles are suffering. Obesity rates in the county among school-aged children were increasing, from 18.9% in 1999 to 23.0% in 2008 (“*Obesity Prevalence...*”, 2013).

This phone-based game sees players unlock fights as they geocache the locations of various parks and public green spaces. The Player is shown as a gender non-conforming teenager who represents

those who fight to offer refuge and compassion to those in crisis. The government exacerbates their problems when they encounter and begin helping an alien seeking asylum, Lil Homie. Lil Homie is an interplanetary refugee in crisis, and begging for asylum. Lil Homie is actively harassed, criminalized and arrested by government agents. To help Lil Homie return home, The Player must search the city with them, to find missing parts of their spaceship so they can reassemble it, regain their mobility and sense of agency, and possibly travel back to their planet and return to their family. The Player helps Lil Homie evade and defeat the Police, ICE Officers, and then President Trump. This antagonism with government agents sees The Player also become a target, until President Trump is finally defeated. The game is about the power of friendship and lending a helping hand to those who need it. The vision for the game is to help Boyle Heights residents enjoy the recreational sites that they have in their communities. Student-designers hoped that people will enjoy this addition to their community and that it will help people enjoy and appreciate Boyle Heights' recreational areas even more (ethnography notes).

Technical Review

Designed as part of a Social Innovation Program for ninth and tenth graders, this campaign for ecological stewardship, focused first on communities alongside the Los Angeles River, before narrowing attention to Recreation and Transit in Boyle Heights. The design of this location-based, geocaching, and two-dimensional fighting game included the facilitation of collaborative analysis through culture circles (Freire, 2000) to understand the intersections of poverty, anti-Latines/Latinx prejudice, and park-poor communities (Collins & Bilge, 2016; Crenshaw, 1991), and design ways to intervene using the tools at our disposal. *Xplore LA* was designed with a critical eye to contemporary politics impacting Latines/Latinx communities in Los Angeles, and Boyle Heights in particular. For these communities, the police, Immigration and Customs Enforcement (ICE) and President Trump represent(ed) antagonistic organizations and entities who demonize Latines/Latinx immigrants and refugees, while encouraging xenophobia and racialized terror. *Pokémon GO* (2016) and *Street Fighter* (1987) were pronounced influences on the design.

Character designs for the game were informed by surveys and interviews of community members, which formed the lionshare of the generative design processes. Student-designers identified the pronounced, negative relationship between Boyle Heights and law enforcement when we attempted to interview street vendors and shops in prominent locations while officers patrolled nearby. The movement to recognize other genders was an additional political dynamic uncovered through the generative design process, and so the playable characters are both gender non-conforming. While the main characters defy gender, the antagonists are all male. While that element of the design was not done intentionally, the decision still aligns with the research conducted. Concept art for characters, ship parts, locations and antagonists are included, as well as the design process for *XploreLA*.

Results

Through the campaign, students developed a Ross Valencia Park Redesign, a Pocket Park Manual and the foundations for *XploreLA*. While previous projects developed playable iterations, the 2017 Social Innovation Program concluded with students presenting their campaigns to a panel of prominent individuals in the public and private sectors. If students were interested in continuing to advocate for these projects they could, but programmatic support ended with the school year. Implementable next steps for the campaign included:

- Lobby the redesign of the pocket park over the subsequent weeks or months
- Distribute The Pocket Park Manual through parks and recreation websites

and

- Fundraise money to pay programmers to develop a playable framework for *XploreLA*

Only the Pocket Park Manual sub-group continued to advocate for the campaign after the close of the academic year. This energy was sustained for a month and a half during summer, before students began to participate in another design team for the following SIP term.

Evaluation

As teachers, we quickly learn that each class has its own dynamics and lessons they impart upon us as professionals. *Pirate Oasis* (2014) was effectively designed, and was coordinated with a lot of institutional support, including allowing a co-teacher to support the course. The game was effective and showcased measured success through simple and clearly defined gamified outcomes.

Despite its efficacy, there was some unchecked ‘racial’ overrepresentation (as seen in the Appendix) seen in the art, and nonwhite voices were frequently silenced in the group dynamics. While discussed more in written reflections than during verbal debriefs, students questioned the art chosen by their peer designers and approved by facilitators. In later conversations, I’d recognize this as students indicating the erasure of nonwhite futures, where only imagined futures exclusive to those racialized as ‘white’ would be included, at the expense of and dehumanization of nonwhite people into nonhuman people. These discussions were later integrated into representations of the social underbelly fighting for revolution to depict the revolutionary masses as ‘nonwhite,’ and their pivotal role in the revolution being exemplified by events with the participation of the entire school community.

Friendship is Magic (2015), the second project designed from the course, was not implemented. The facilitation of the program during this year raised questions about working with groups of students who are transitioning into their own authority as student-teachers and student-designers. Political nature of culture circles is focused on student agency, and flipping the power dynamics of student and teacher for a dialogic one instead will also play a part in their facilitation. The possibility of falling into facilitative traps like the Abilene paradox remain a possibility. Their decline into the Abilene paradox was particularly remarkable to witness because there were multiple times during the course of the design where facilitators questioned the group regarding their commitment to the idea, yet they continued to reiterate a concurring stance and group consensus.

The administrative intervention that pushed the course away from human development and into humanities and history instruction is indicative of a larger pattern. When nontraditional approaches to education, including culture circles and design- and game-based instruction, among others, are introduced to new sites, we frequently see student, parent, and administrative backlash. Students who are used to succeeding in traditional formats complain about the uncertainty of their success;

parents question the efficacy of nontraditional approaches; while administrators frequently intervene to reorient the programming back to methodologies they are accustomed to seeing.

#SaveOurGirls (2016) was a surprisingly impactful experience. While the program originally intended to design experiences for peers, *#SaveOurGirls* showed that, with appropriate scaffolding and support of educators, children have the capacity to engage in content that is above their expected developmental level. These students developed educational materials that were engaging and inspiring to those in the peer group slightly older than them. With the students' collaborative design (codesign), we facilitated a deeply moving and emotional experience for students, staff, and families.

XploreLA (2017) was designed and presented to a group of community investors, but never implemented. While the outcomes were more limited than previous projects, the ecological justice campaign that conceived *XploreLA* had the most thorough design process. The process was more robust due to the inclusion of an additional recursion of the generative and iterative design processes of culture circles. The first process looked generally at communities adjacent to the Los Angeles River, and part of the Los Angeles River Basin. During the second process, students focused on the Boyle Heights community, specifically. Unlike in previous iterations of this process, *XploreLA* was disconnected from the InterGroup Dialogue group. While InterGroup Dialogue Group and Social Innovation Groups had substantial overlap, their groupings also contained slight variations. This left an intentional, but incomplete overlap. This programmatic design allowed group dynamics to be unaddressed, and without a vehicle for repair. The emphasis of the generative and iterative design of social innovation was prioritized over the other interpersonal relations that were emphasized previously at the initial school site. The game's design is highly political, and still relevant years later. Leveraging geocaching for location-based learning, ecological stewardship, and connecting students to local green and play spaces, is still a stimulating idea worth pursuing.

Next Steps

Overall, it appears that implementing culture circles, and play-, game-, and design-based teaching and assessment can be highly effective when implemented in schools. More educators need to be trained to have access to these types of methodologies. Despite critical pedagogy being a heavily represented framework discussed in academia and among some groups of practitioners, methodological approaches to the implementation of problem-posing pedagogy is less frequently encountered. This is even more evident in regards to culture circles and their implementation. Teacher training programs and graduate schools of education must consider the inclusion of culture circle facilitation in their course loads.

While we have seen an influx of play-, game-, and design-based approaches to learning and instruction that focus on digital methods, these examples were primarily interested in non-digital game design and gameplay. Digital design and gameplay runs various additional risks that come with technology use in the classroom, which non-digital approaches tend to avoid. . Teacher training programs and graduate schools of education should also consider the inclusion of game- and design-based approaches to instruction and assessment and prepare educators to apply these novel, and at times avante-garde, methods for teaching and learning.

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Appendix A:

The descriptions of the solar system, planet, game characters, activity introductions and a breakdown of the various challenges are shown below, in addition to the process to develop *Pirate Oasis*.

2348 Azziana System Guide



**B2 V Blue-white
Main Sequence**



Rock Planet

3 moons



**Oasis B868954-
A**

2 moons



Jovian Planet

5 large moons



Ice Planet

3 moons

Appendix B:



A description of the Planet Oasis, for the game *Pirate Oasis*. The description was generated by a program and then adopted by participants during role play.

| Oasis B868954-A | | |
|------------------------|---------------------|---|
| Physics | Type | Standard ocean |
| | Radius | 7330.23 km (1.15 x earth) |
| | Surface Area | $6.75 \times 10^8 \text{ km}^2$ |
| | Land Area | $5.40 \times 10^7 \text{ km}^2$ (0.36 x earth) |
| | Mass | $1.02 \times 10^{25} \text{ kg}$ (1.70 x earth) |
| | Density | 6.16 g/cm^3 (1.12 x earth) |
| | Composition | 36.7% iron, 18.3% oxygen, 15.5% aluminum, 10% other metals, 1.7% other elements |
| Hydrosphere | Water | 93 % |
| | Ice | 5 % |
| Atmosphere | Type | Dense breathable |
| | Pressure | 122.06 kPa (1.20 x earth) |

| | | |
|---------------------|--------------------|---|
| | Composition | 77.5% nitrogen, 22.5% oxygen, trace other gases |
| Climate | Type | Standard |
| | Min Temp | 220 K (-52 °C)(-61.6°F) |
| | Avg Temp | 293 K (20 °C)(68°F) |
| | Max Temp | 355 K (82 °C)(179.6°F) |
| Civilization | Type | Colony |
| | Population | 520.07 million |
| | Society | Technocracy |
| | Tech Level | Interplanetary (nuclear fusion, space colonies, nanotechnology) |

Appendix C:

Character profiles for Pirate Oasis created by students. Myers-Briggs Personality Profiles were used to support interpersonal development and communication. Students chose elements of their character profiles, including their names, backgrounds, and decided how they wanted to roleplay the various tasks. Teacher-facilitators chose the images used to represent the student characters. This was later problematized.

| | |
|---|--|
| <p>Almyra Trout-Beauchomp (Sasha, ESFP)</p> <p>13 year old prodigy gymnast, Almyra lost her grandfather during an attack by a mad scientist. She fears what she'll have to give up next time to save those she loves.</p> | <p>Prince Homer Sacheverell-Foljambe (Liam, INFP)</p> <p>His parents were murdered, so he was raised by his grandparents. He finds an animal friend, Dagon, while living on planet Oasis. The planet has sparked his powers of psycho-kinesis.</p> |
| <p><i>Thief</i></p>  <p>Performer /Artisan</p> | <p><i>Mercantilist</i></p>  <p>Healer/Idealist</p> |
| <p><i>“Stop playing!”</i></p> | <p><i>“Stop feeling hurt!”</i></p> |
| <p>Guidelines for Coaching Negotiators</p> <ul style="list-style-type: none"> ○ Don't take yourself too seriously around them ○ Demonstrate in an active way. ○ Illustrate the immediate, practical benefits by citing real-life examples, and give them plenty of options to consider. ○ Encourage them to experiment | <p>Guidelines for Coaching Catalysts</p> <ul style="list-style-type: none"> ○ Be warm, friendly and personable. ○ Appeal to their empathic nature. Speak of the benefits in human terms ○ Challenge their creativity and imagination in solving personal and interpersonal problems ○ Appeal to their desire to be unique and original; appreciate their leanings toward the unconventional and unusual |

- Make the experience as much fun and entertaining as possible. Build in some payoff

Owen Chancey-Underhill (Jesse, ESFP)

Midshipman Underhill is an 18 year old mechanic, who can't fight for his life. He was the apprentice of a steam mechanic until the man was killed in a raid. Has helped piece back together many ships, and has great muscle memory when it comes to knowing how something is steered.

Mechanist



Performer /Artisan

“Stop playing!”

Guidelines for Coaching Negotiators

- Don't take yourself too seriously around them
- Demonstrate in an active way.

Sir Willard Woodbrygg-Loddington (Gus, ESFP)

Sir Willard, aka **Acid Man**, runs a recovery and pawn shop with his partner, Jazmine. Using old-world technology, he mods his arms to shoot incendiaries; fire, acid, electricity, though he has an obvious preference. Music is his main weakness; he has a sensitivity to sound.

Chemoguardian/Explosives Expert





Performer/Artisan

“Stop playing!”

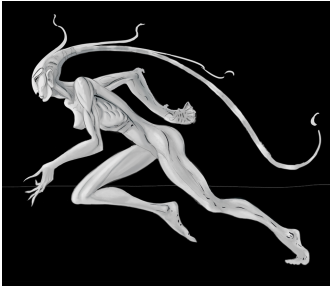

Guidelines for Coaching Negotiators

- Don't take yourself too seriously around them
- Demonstrate in an active way.



| | |
|---|---|
| <ul style="list-style-type: none"> ○ Illustrate the immediate, practical benefits by citing real-life examples, and give them plenty of options to consider. ○ Encourage them to experiment ○ Make the experience as much fun and entertaining as possible. Build in some payoff | <ul style="list-style-type: none"> ○ Illustrate the immediate, practical benefits by citing real-life examples, and give them plenty of options to consider. ○ Encourage them to experiment <p>Make the experience as much fun and entertaining as possible. Build in some payoff</p> |
|---|---|

| | |
|---|--|
| <p>Countess Marie Yaxley-Woodbrygg (Sofia, ESFP)</p> <p>The Countess, age 13 years, is from a family that has participated in eugenic pairing and altering for the past seven generations. Strength, speed, stamina, and intelligence are the tip of the iceberg. The Countess has a special sixth sense that helps her during times of stress.</p> | <p>Guy Yates-Bangs, aka Specimen 7 (Breaker, ISFP)</p> <p>Guy, 13 years old, was created in a laboratory by Dr. Sknrd. He is a ridiculously good-looking cyborg and cat burglar. On Oasis, he's treated like a born-human.</p> |
| <p><i>Mercantilist</i></p>  <p>Performer /Artisan</p> | <p><i>Bio-engineered Cyborg</i></p>  <p>Composer/Artisan</p> |
| <p><i>“Stop playing!”</i></p> | <p><i>“Stop wearing your heart on your sleeve!”</i></p> |
| <p>Guidelines for Coaching Negotiators</p> <ul style="list-style-type: none"> ○ Don't take yourself too seriously around them ○ Demonstrate in an active way. | <p>Guidelines for Coaching Negotiators</p> <ul style="list-style-type: none"> ○ Don't take yourself too seriously around them ○ Demonstrate in an active way. |

| | |
|---|---|
| <ul style="list-style-type: none"> ○ Illustrate the immediate, practical benefits by citing real-life examples, and give them plenty of options to consider. ○ Encourage them to experiment ○ Make the experience as much fun and entertaining as possible. Build in some payoff | <ul style="list-style-type: none"> ○ Illustrate the immediate, practical benefits by citing real-life examples, and give them plenty of options to consider. ○ Encourage them to experiment ○ Make the experience as much fun and entertaining as possible. Build in some payoff |
|---|---|

| | |
|---|--|
| <p>Genevieve Bramh Canon (Maddy, ESFP)</p> <p>Genevieve, aka Hattie, is a 17 year-old runaway. Due to a medical mishap on planet Oasis, she can shape-shift, but can only maintain a form for two hours, including her own. Her parents were murdered during a botched robbery.</p> | <p>Capt. Jules Amir Knyvett-Wexcombe (Eric, INTJ)</p> <p>Captain Jules, 23 year old pirate smuggler, has escaped slavery through learning and applying trade skills (engineering). He stole the ship he uses, “Selling loot on the black markets of the cesspool we call Oasis.”</p> |
| <p><i>Shapeshifter/Stowaway</i></p>  <p>Performer /Artisan</p> | <p><i>Aeronaut</i></p>  <p>Mastermind/Rational</p> |
| <p><i>“Stop playing!”</i></p> | <p><i>“Stop being so stubborn!”</i></p> |
| <p>Guidelines for Coaching Negotiators</p> <ul style="list-style-type: none"> ○ Don’t take yourself too seriously around them ○ Demonstrate in an active way. ○ Illustrate the immediate, practical benefits by citing real-life examples, and give them plenty of options to consider. | <p>Guidelines for Coaching Visionaries</p> <ul style="list-style-type: none"> ● Challenge their intellectual curiosity, and engage their imagination ● Position benefits in terms of the big picture, address the future implications of actions, and provide a logical rationale |

| | |
|--|---|
| <ul style="list-style-type: none"> ○ Encourage them to experiment ○ Make the experience as much fun and entertaining as possible. Build in some payoff | <ul style="list-style-type: none"> ● Use a chart, graph, diagram, matrix or some other conceptual model to convey your ideas. Think simultaneous rather than sequential ● External praise is viewed with suspicion because they use inner standards to measure competence |
|--|---|

| | |
|--|---|
| <p>Viceroy Ernest Warbulton-Piggs (Zubin, INTJ)</p> <p>“Vice-War” is a 19 year old, ex-weapons manufacturer and engineer with a vehicles focus. He’s a former child genius turned pirate with a wrench always in his pocket. He got “scurvy” travelling the Seven Galaxy. He’s loyal to Captain Jules, has no family since his parents were eaten on planet Oasis.</p> | <p>Inquisitor Noah Welby-Bestwertick (Ben, INTJ)</p> <p>Inquisitor Welby-Bestwertick, aka Clockwork, is a 21 year old pirate, sneaky, hunched, plan-maker, with severe OCD. His parents went missing 8 years ago, and his brother was murdered by an evil scientist. He swore revenge</p> |
| <p><i>Engineer</i></p>  <p>Mastermind/Rational</p> | <p><i>Mechanist</i></p>  <p>Mastermind/Rational</p> |
| <p><i>“Stop being so stubborn!”</i></p> | <p><i>“Stop being so stubborn!”</i></p> |
| <p>Guidelines for Coaching Visionaries</p> | <p>Guidelines for Coaching Visionaries</p> |

- Challenge their intellectual curiosity, and engage their imagination
- Provide a logical rationale
- Use a conceptual model to convey your ideas. Think simultaneous rather than sequential
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Epoxy Quantic (Lea, INTP)

Epoxy is 32 years old, single, and ready to mingle! She fears commitment, but is intensely loyal to those she can commit to... so far, just Captain Jules. She's been paired and separated four times by the Galton Corps. She feels strongest with money in her pocket and guns in her hand.

Mercenary/Bounty Hunter



Architect/Rational

“Stop being so theoretical!”

Guidelines for Coaching Visionaries

- Challenge their intellectual curiosity, and engage their imagination
- Provide a logical rationale
- Use a conceptual model to convey your ideas. Think simultaneous rather than sequential
- External praise is viewed with suspicion because they use inner standards to measure competence

Appendix D:

Below is the introduction read aloud to open #SaveOurGirls, the participatory theater, forum game, and event. The image was chosen by the facilitator, and approved by the student-designers.

#SaveOurGirls

A viral campaign to fight human trafficking



Introduction:

On the night of February 23rd, 2017, a group of militants attacked the Government Girls Secondary School in Chibok, Nigeria. They kidnapped hundreds of girls pretending to be guards. The school had been closed for four weeks prior to the attack due to the deteriorating security situation, but students from multiple schools had been called in to take final exams in physics. The children were aged 16 to 18 and were in their final year of school. They were kidnapped to be trafficked as a means of intimidating the civilian population into compliance. On May 5, Abubakar Shekau, leader of Boko Haram took responsibility and warned, "I shall capture [more] people and make them slaves." He said the girls should not have been in school and instead should have been married since girls as young as nine are suitable for marriage. Houses in Chibok were also burned down in the process.

Appendix E:

“The Parents’ Message” below is a recreation of a message from the parents of the kidnapped and trafficked Chibok girls, kidnapped by Boko Haram. The introduction was composed using the statements and reports about the incident. Constructing, revising, and speaking this introduction was a deeply emotional experience for student-designers and audience Spect-actors alike.

Their Parents’ Message:

Mr. Bashir Manzo, who acts as the chairman of the Forum of Missing Dapchi Schoolgirls Parents said, “So far, from what we have collated as at today Saturday 23rd February 2017, we have a total of 105 schoolgirls who have not been seen since the attack of Dapchi on Monday 19th February... We the parents that can confirm it to him that our daughters who are students of GGSTC Dapchi had been kidnapped by Boko Haram. “From the feelers we are getting it thus seem the governor is still not been made to understand that these girls were abducted; he is still being made to believe that they had gone missing because they ran into the bush and have not been able to find their ways back to town.

“The fact of the matter is that all those that fled into the bush had been brought back to the school on Tuesday, and a roll call was taken after which they had all gone home to meet their parents. “So far, we have a total of 105; we don’t know if there could be more of them,” he said. Mr. Bashir said his teenage daughter, Fatima Bashir, a Junior Secondary III student, is amongst the missing girls. Boko Haram gunmen on Monday attacked Dapchi town of Yobe state and went away with students of the town’s girls’ secondary school. Neither the military nor the management of the school have given yet an accurate figure of the schoolgirls that were abducted. The minister of information, Lai Mohammed, visited Dapchi on Thursday where he told the media that the federal government still needs “some few days” to confirm the figures with the parents.

According to a Human Rights Watch report released October, 2014, “the Nigerian government has failed to adequately protect women and girls from a myriad of abuses, provide them with effective support and mental health and medical care after captivity, ensure access to safe schools, or investigate and prosecute those responsible for the abuses.”

Your detective agency has been hired by the Forum of Missing Dapshi Schoolgirls Parents to intercept the human traffickers and take down their trafficking ring. Those involved work at Terminal 3 at 4pm. Participants must determine which Attendant and Guide are at Terminal 3 at 4pm. We need YOU to help #SaveOurGirls!

Appendix F:

The list of names below shows the real names of the girls who were kidnapped and trafficked by Boko Haram. As part of the design process, students investigated the authenticity of this list and each girl's story, based on scant information available. While designing the forum game, students wanted to ensure that they and their audience would establish a personal connection to "those we want to save" [ethnographic note].

| According to the forum of parents, the 105 missing girls are as follows: | | | |
|--|-------------------|--------------------------|--------------------------|
| 1. Fatima Bashir | 26. Fatsuma Ali | 46. <i>Name Redacted</i> | 76. Marya Mustapha |
| 2. Aisha Kachalla | 27. Zara'U | 47. Zainab Usman | 77. Aisha Abdullahi |
| 3. Zainab Abubakar | Mohammed | 48. Hadiza Mohammed | 78. Maryam Adamu |
| 4. Falmata Wakil | 28. Salamatu | Taiduma | Mohammed |
| 5. Fatima Isa | Garba | 49. Maryam Ibrahim | 79. Bintu Usman |
| 6. Fatima Musa | 29. Falmata Alh. | 50. Fatima M. Gira | 80. Fatsuma Mohammed |
| 7. Aisha Usman | Inuwa | 51. Hafsat Ibrahim Gira | 81. Salamatu Isiyaku |
| 8. Aisha Adamu | 30. Falmata Alh. | 52. Maryam Ibrahim | 82. Hauwa Lawan |
| 9. Fatima Isa | Ali | 53. Zara Tijjani | 83. Aisha B. Danjuma |
| 10. Hauwa A. | 31. Aisha B. | 54. Amina Haruna | 84. Aisha Moh'D |
| Mohammed Idriss | Danjuma | 55. Fatima Adamu | Jakusko |
| 11. Maryam | 32. Maryam | 56. Khadija Mai Sale | 85. Hauwa Bulama |
| Mohammed | Bashir | 57. Khadija Ali | 86. Fatima Abubakar |
| 12. Fatima | 33. Maryam Aliyu | 58. Habiba Musa Jakana | Jambo |
| Mohammed II | Mabu | 59. Fatima Bukar | 87. Walida Adamu |
| 13. Hauwa Salisu | 34. Fatima Modu | 60. Hajara Gidado | 88. Fanna Mohammed |
| 14. Hassana | Bamba | 61. Maryam Basiru | 89. Aisha M. Bukar |
| Gambo | 35. Aisha Modu | 62. Fatima Usman | 90. Maryam Usman |
| 15. Aisha Adamu | Bamba | 63. Maryam Ibrahim | 91. Aisha Abba Aji |
| 16. Adama Garba | 36. Hafsat Haruna | 64. Leah Sherubu | 92. Maryam Usman |
| 17. Zara Grema | 37. Rabi Alh. | 65. Aisha Alh. Deri | 93. Maimuna A. Hassan |
| 18. Maryam | Nasiru | 66. Fatima Hassan | 94. Zara Musa |
| Daamkontoma | 38. Hadiza Moh'D | Mustapha | 95. Maryam Mohammed |
| 19. Zainab Bama | 39. Fatima Aji | 67. Zainab Manu | Kaku |
| 20. Fatsuma | Hassan | 68. Zara Tijjani | 96. Khadija Suleiman |
| Abdullahi | 40. Falmata Wakil | 69. Zainab Bukar Abba | 97. Habiba Nuhu Dan Inu |
| 21. Fatima Yahaya | 41. Aisha Wakil | 70. Hauwa Saidu | 98. Fatima Isiyaku Aliyu |
| Tarbutu | 42. Falmata A. | Abubakar | 99. Sahura Jibir |
| 22. Amina Yahaya | Audu | 71. Karima Inusa | Mohammed |
| Tarbutu | 43. Aisha Maina | 72. Amina A. Abubakar | 100. Khadija Grema |
| 23. Amina Adamu | 44. Aisha | 73. Yakura Sani | Dabuwa |
| 24. Hajara Ali | Mohammed | 74. Rabi Yahaya Tela | 101. Zara Grema Dabuwa |
| 25. Fatima | 45. Aisha Mamuda | 75. Hajara Yahaya Tela | 102. Zara Mohammed |
| Abdullahi | | | Lawan |
| | | | 103. Fatima Mohammed |

| | | | |
|--|--|--|--|
| | | | 104. Fati Modu Aisami 105. Fatsuma Alli |
|--|--|--|--|

Appendix G:

Multiple narratives about the survivors of this abuse were shared with the spect-actors. Three have been reproduced below.

Survivor Introductions

Zara Tijjani

Zara was sold to a Boko Haram captain by her uncle to appease him from violence against their entire family. A wealthy family from her village has paid your agency to extract her safely. The captain has reneged on his agreement and Zara desperately needs extraction. If you are unsuccessful, she may be used as a suicide bomber. Will you help #SaveOurGirls?

Aisha Abdullahi

Boko Haram claims the Quran supports sexual slavery, so they have made it an essential part of their legal and economic system. Women and girls from conquered regions in Nigeria are trafficked to high-ranking officials as part of their wages. They claim that the Quran supports enslavement of women and girls from different ethnicities and faiths. Aisha, Chibok girl, was kidnapped while taking a test and trafficked from her school. Her dream is to be a physicist. She needs your help to escape Boko Haram. Will you help #SaveOurGirls?

Amina Haruna

Amina, a Chibok girl from Balala Village, was kidnapped by the terror group, Boko Haram, in 2014, along with 218 other girls. Your civilian vigilante agency has been tasked to work alongside the Nigerian military to return Amina to her family. Will you help #SaveOurGirls?

Appendix H:

The Character Descriptions for *Xplore LA*, a location-based, geocaching, two-dimensional fighting game, include The Player, Lil Homie, Police Officers, ICE Agents, Secret Service Agents, President Trump, and Giant Baby Trump.

***XploreLA* Character Descriptions**

The Player: The main character is a teenage resident of Boyle Heights. They ride around on a skateboard to demonstrate the variety of transportation that one can use in Boyle Heights. They are trying to help Lil Homie get back home because they sympathize with them.

Lil Homie: is an alien from a distant planet named Unwalla or 51 Pegasi B. They crashed on Earth while escaping the war between their home planet and Planet Wataballa. Lil Homie wants to fix his ship, live on earth in peace and one day save his planet. Some items that broke off or fell from his ship include a Cockpit, Engine Tank, Rocket Boosters, Rudder, Tail, Various Survival Supplies, HoloBook of family images, and Space Maps.

Police Officers: Police Officers appear as the initial antagonists. Their goal is to capture Lil Homie because they are an ‘Illegal Alien,’ as they put it. They are met with retorts such as, “No one is illegal,” “They are a refugee,” “Lil Homie’s just seeking safety,” among others. Police Officers pursue, then fight the Player and Lil Homie.

ICE Agents: Immigration & Customs Enforcement (ICE) are notified after 3 Police Officers are defeated. The goals of ICE Officials include fighting Lil Homie over each ship part found, before capturing and imprisoning them. Players fight with Lil Homie against ICE. If Lil Homie is captured, Players must defeat 5 ICE Agents concurrently to free them.

Secret Service Agents: Secret Service (SS) Agents are notified and begin to appear if Lil Homie is freed. The goal of the SS Agents is to detain and disappear ‘Illegal Aliens’ and their accomplices. Players fight alongside Lil Homie and against SS Agents. If Lil Homie is defeated and captured, Players must defeat 3 SS Agents concurrently to free them. If the Player is defeated, they are captured, and the Player takes over Lil Homie to defeat 3 SS Agents concurrently to free themselves. (Currently FBI agents in art.)

President Trump: If multiple contingents of SS Agents are defeated, President Trump may appear. He repeats offensive statements the real Donald Trump has made, censored and edited for a PG13 audience. President Trump’s goal is to detain and sell ‘Illegal Aliens’ and their accomplices to fight in the Wataballa War. If Trump appears, Players must defeat 3 SS Agents and President Trump concurrently with Lil Homie. If Lil Homie is defeated and captured, President Trump leaves, and Players must defeat 3 SS Agents concurrently to free them. If the Player is defeated, they are captured and President Trump leaves, and the Player takes over Lil Homie to defeat 3 SS Agents concurrently to free themselves. If President Trump or the SS win, the screen flashes with: “Trump Sold You Out!,” and an image of President Trump doing business with a Wataballa Warship, as you and Lil Homie are tied up behind him.

Giant Baby Trump: If President Trump and his SS Agents are defeated or if the Player and Lil Homie are on their last item, President Trump reappears as a Giant Baby Trump (GBT) in the middle of a tantrum. The image includes Trump’s token hair, a snotty nose, and a full and leaky diaper with a ‘Poopin’ Putin Diapers’ logo featuring Vladimir Putin’s face. If GBT appears, he

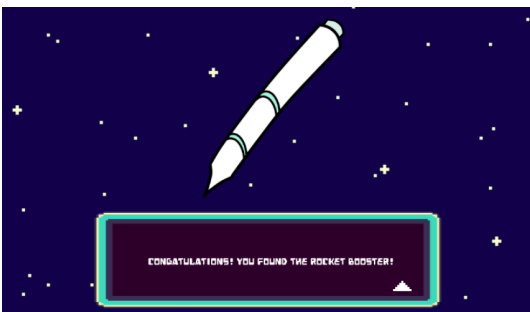
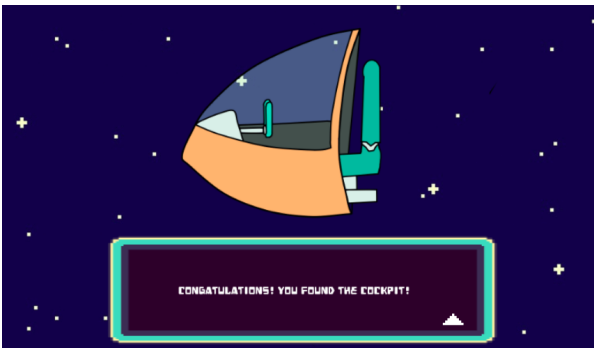
brings 4 Police Officers, 3 ICE Agents, and 2 SS Agents with him. If Lil Homie is defeated and captured, GBT throws him in a satchel and counts money until all other forces are defeated. If the Player is defeated and captured, they takes over Lil Homie while GBT responds the same. If President Trump or the SS win, the screen flashes with: "Trump Sold You Out!" and an image of President Trump doing business with a Wataballa Warship, as you and Lil Homie are tied up behind him. Special attacks of GBT include dropping his diaper's load, hurling snot rockets, and sitting on top of opponents.

Appendix I:

Concept Art for The Player and Lil Homie in *XploreLA*, a location-based, geocaching, two-dimensional fighting game focused heavily on The Player, and Lil Homie.



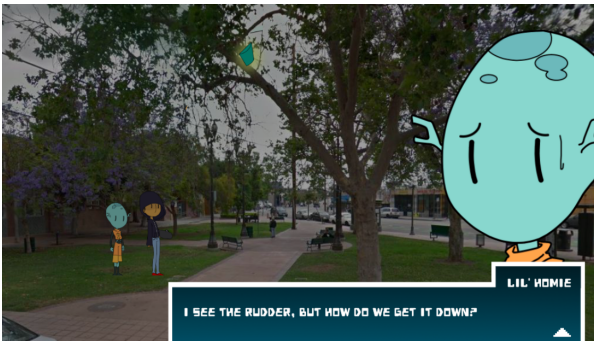
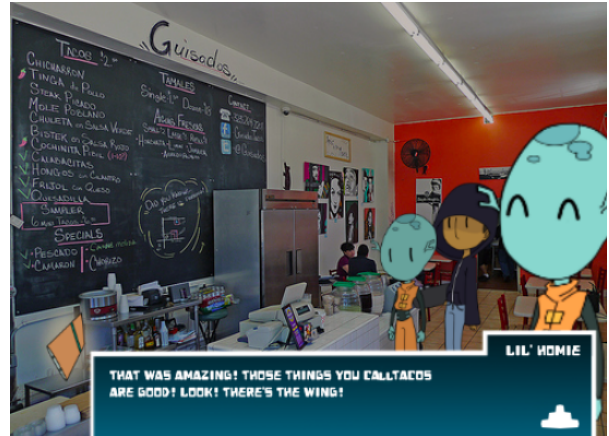
Appendix J:
Concept Art for Lil Homie's Space Ship Parts in *Xplore LA*.
Ship Parts

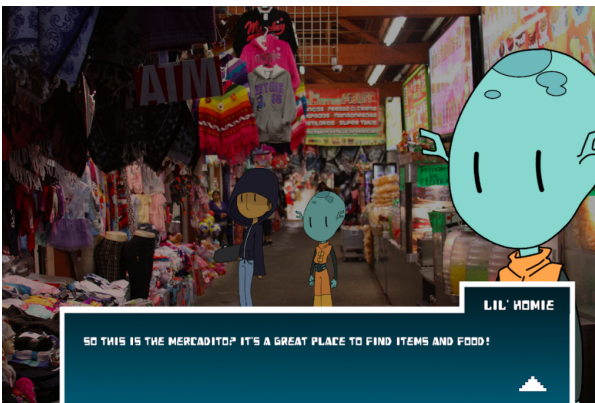


Appendix K:

Concept Art for Locations in *XploreLA*. These locations were based on local green and play spaces as a tool to combat diabetes, cardiovascular disease, depression, obesity, and cancer.

Locations





Appendix L:

Concept Art for the Antagonist characters in *Xplore LA*. Additional characters include Police Officers, ICE Agents, Secret Service Agents, and President Trump.

Antagonists

