

Live Action Role-Playing (Larp): Insight into an Underutilized Educational Tool

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Key Summary Points

1

Live Action Role-playing (larp) is a new name for an old, common pedagogical technique used throughout the world for centuries.

2

Educational live action role playing has a specific purpose and pedagogical structure.

3

Larp could be a powerful tool for education. However, more attention, awareness, and study is needed.

Key Terms

Live Action Role-playing (larp)

Role-playing

Educational larp

Edu-larp

Alibi

Table-top

Role-playing games (RPGs)

Intrinsic motivation

Emergent gameplay

Introduction

This chapter examines the use of live action role-playing, or larp, in education. It looks briefly at the difference between a “game” and “play,” explains educational larps (edu-larp) and examines the problem of terminology for the practice of larp. Key perspectives and frameworks from around the world are briefly detailed, followed by the few key research findings. Suggestions for further research

are detailed. Tips for running and designing educational larps are offered in the Best Practices section, including a checklist to tell if an edu-larp is working. Finally, three case studies of educational larp are detailed, the first from Danish boarding school Østerskov Efterskole, which uses larp for their entire curriculum, the second an example from Seekers Unlimited, a defunct public charity founded to develop and produce edu-larps, and the third from Barnard College's Reacting to the Past program for history studies. The intent of this chapter is to introduce, or re-introduce, the readers to a pedagogy they are probably familiar with but have not studied. Ideally, educators will recognize and realize the powerful potential of live action role-playing to profoundly affect education on every level.

Key terms

Often when people see the term “educational games” they think solely of digital video games. The top Google hits for “educational games” brings up web-based games, software, apps, or academic theorists arguing the value and efficacy of games in schooling.

Rather than corroborating or contravening educational video games, this chapter presents another learning model that predates digital games. This model, live action role-playing or larp, asks students and teachers to take on character roles in a pre-written adventure and via improvisational acting, create a communal narrative. To make their way through the scenario, the players (students) learn the lessons (curriculum) embedded into the program. This simple act of play pretend has proven to be highly effective in motivating, engaging, and empowering students. With emotional attachment to a story, the lessons learned become much more important to the student, increasing retention and subject comprehension. Although computers and other technologies can enhance the immersion and engagement in an educational larp scenario, they are not required. All that is needed is a little imagination.

Game versus play?

Educational games defined by Wikipedia are “games explicitly designed with educational purposes, or that have incidental or secondary educational value.” (Wikipedia, n.d., retrieved March 2, 2015) Using this perspective, many games have an educational benefit: chess exercises spatial, numerical, administrative-directional, and verbal aptitudes (Ferguson, 1995). Poker can improve risk assessment, situational analysis, and reading body language and social cues (Rivlin, 2007) Indeed, Raph Koster in his book *A Theory of Fun for Game Design* postulates that all games, all play, can teach something,

If games are essentially models of reality, then the things that games teach us must reflect on reality. The very phrase ‘it’s just a game’ implies that playing a game is a form of PRACTICE for a real-life challenge. From playing cops and robber to playing house, play is about learning life skills. (Koster, 2005, pp. 52-53)

The problem is not that games cannot teach, the problem is that not enough games nor different types of games have been used, studied or compared for their educational capability. Furthermore, the bulk of educational game research is currently concentrated on digital games, often ignoring centuries of non-digital games that could have significant positive effects on direct learning—at a fraction of the cost.

To understand larps, it is critical to understand the difference between “game” and “play.” They are not the same thing, as a structured game with set rules and clear goals are not required for play. People (and animals) can play without a defined win state, points, stats, levels, or boss enemies. Not all larps are games, but all larps are play; it is inherent in the action. Whether they are a game or play, larps can be an amazing catalyst for classroom engagement, improved student focus, drive, motivation, and even understanding across a wide range of subjects. Additionally, larps exercise the soft skills of time management, critical thinking, teamwork, empathy, and one of the most important, accepting and learning from failure.

What is an Educational Larp?

An educational larp is a pedagogical activity where students take on character roles in pre-written scenarios designed to facilitate self-motivated learning, as well as teach pre-determined knowledge in a contextual framework. General 21st century skills, such as problem-solving, logical or critical thinking, creative and innovative processes, collaboration, communication, visual, scientific and numerical literacy, are robustly exercised. In addition, most educational larps are cross-disciplinary (see Case Studies for examples). Larps are a method for mental exercise through puzzles, dilemmas, open-ended challenges, physical exercise through activities, many with tactile components, and notably, emotional exercise. Through the alibi of a character role that is not you, emotions and social practices can be worked out in a safe, controlled environment. Larps can be considered ego gyms.

Most larp events are designed for entertainment purposes. Although self-discovery, self-improvement, and community building are common benefits of larping (Bowman, 2010), rarely are those benefits the primary purpose of the activity. Educational larps instead have a directive to teach; to create circumstances where students are motivated and empowered to pull the knowledge to them, whether that information comes from a teacher, a peer, a textbook, the Internet, or any other source. The opposite method is traditional education, which pushes information to a student and commands them to regurgitate semi-random portions of that content during a timed test.

Other Labels for Larp

The use of the word “larp” to describe the process of improvised role-playing dates back to the late 1970s. However, this technique of play extends back at least into the 16th century (Stark, 2012), if not into pre-recorded history. Activities similar to larp under other names or descriptions include Italy’s 16th century *Commedia dell’ Arte* (masked actors improvise scenarios as archetypes), Jacob Moreno’s psychodrama (role-playing and spontaneous dramatization of real world situations for the purpose of therapeutic reflection and self-examination), the Happenings encouraged by Viola Spolin and Keith Johnstone (spontaneous performance art, such as modern flash mobs, with audience interaction and nonlinear narratives), military wargames (simulating interaction and engagement with enemy combatants and non-combatants), mock trials (an imitation trial designed to test arguments and evidence), and the Model United Nations (high school students role-play members of the real United Nations and debate positions at conferences).

Larp has also been labeled interactive experience, simulation, experiential learning, theater games, story games, freeform games, live games, murder mystery theater, and more. Many people, these authors included, categorize childhood games such as cops and robbers and playing house as larps. Some of the activities in the preceding list have obvious educational goals: how to win a battle (military wargames), how to win a trial (mock trials), or fostering a deeper understanding of current socio-political events around the world (Model United Nations). Whatever the term, the purpose of teaching something to participants via full body role-playing between humans (not computer programs) is the primary quality of an educational larp. (While table top role-playing games such as *Dungeons & Dragons* use narration solely to tell stories, larps use the entire body and body language, as well as the voice.)

Malik Hyltoft, a founder of the Education Larper’s International Network (ELIN) and co-founder of Østerskov Efterskole, a Danish boarding school where the entire curriculum across all subjects for all students is larp-based, writes:

In order for a larp to be educational, we would demand that the organizers of the activity have a plan for acquisition of knowledge or skills or correction of certain behaviours in the target group through the medium of the larp. So whilst the participants may feel like it is, the activity cannot be solely recreational... To be classified as live action, the human element must be significant. There must be interaction between people as seen in opposition to interaction between person and machine or singularly machine-modified interaction between people... Finally there must be a role-playing component—a narrative element, the assumption of roles by the participants and the general consensus about the rules of engagement which characterizes any game.

(Hyltoft, 2010, p. 44)

A special note must be mentioned for research larps, where the creator of the event seeks to explore a question or test a hypothesis. Here, the other participants are objects of study. Perhaps the most famous research larp—though not labeled as such—was Philip G. Zimbardo’s Stanford Prison Experiment. Although research larps are ultimately useful for education, they are not designed to impart knowledge or create the conditions where participants can learn knowledge—though that may occur incidentally. They are larps, but they are not an “educational larp” by the above definition (see Table 1).

Table 1. Table of the design purpose of different larps.

Design Purpose of Different Larp Forms			
Characteristic	Edu-larp	Research Larp	Entertainment Larp
Larp designed specifically to teach participants	x		
Larp designed specifically to teach designers		x	
Larp designed specifically for fun for all			x

Bowman and Standiford explain some of the variation of role-playing in article titled “Educational Larp in the Middle School Classroom: A Mixed Method Case Study.” They say:

Several forms of experiential learning currently exist in pedagogy. Game-based learning is a form of education that includes systems for success and failure, but may not involve a role. Simulations attempt to replicate real world scenarios in low-consequence contexts and generally involve some degree of role. Drama is a form of theatrical enactment that avoids extensive scripting in favor of role-based, collaborative improvisation into a fictional situation. Role-playing refers to the act of adopting a new role for a long period of time in a bounded, fictional scenario that may or may not resemble mundane reality. (Bowman, S., & Standiford, A., 2015)

Case Study One: Østerskov Efterskole’s *Serial Killer*

Teachers from this all-larp boarding school in Denmark presented their secrets at the Solmukohta convention in Finland in 2012. In addition, an open house tour combined with a lengthy interview with headmaster and co-founder Mads Lunau plus a few students revealed examples and underpinnings of the school’s pedagogical curricular framework, summarized below.

Each school week has a different theme, such as World War II, running a cruise ship, or a CSI-like hunt for a serial killer. All teachers tie their particular subject lessons to the week’s theme and they work together on one story. For example, for the police procedural theme, one of the victims was dissolved in a tub of acid. For one class period, the school’s chemistry teacher presented a lecture in the chemistry lab about acids, bases, and the pH scale. By the instructor’s reckoning, it was like any other lab-lecture in any other school except for one small detail: she did not think of herself as a high school chemistry teacher. Instead she role-played a subject expert called in by the Chief of Police to explain to the detectives (the role-playing students) information related to their case. In addition, she did not think of the students as students who had to take a test on the material, but as dedicated officers tracking a diabolical murderer. Other teachers performed similar roles: the physics teacher was a ballistics expert and the history teacher lent insight on the symbols left by the killer at the scene of the crime.

This simple patina of story on an otherwise mundane lecture changed the engagement and motivation of the students. They paid attention because they wanted to figure out the clues of the case and solve the mystery. Students learned about acids and bases in context—albeit a fictional one based on the real world. They had to apply the information to evidence gleaned from the reports and logically deduct a solution. Teachers could assess their progress by their case file and, ultimately, if they were able to catch the culprit. Only one team would complete this competitive task, but an allowance for failure keeps students focused on the task, and permits them to experiment and learn from their mistakes.

Key Frameworks

Mark Carnes provided the following quote when asked about educational games,

From Plato through Piaget, philosophers, psychologists, and professional educators have endorsed educational games: that is, using the elements of play, however defined, to promote learning. But usually educational games are recommended for youngsters. The same theorists insist that for teenagers and older students, play should give way to work. This helps explain why so many college students are deeply disengaged from the academic enterprise. (M. Carnes, personal communication, May 22nd, 2015).

While larp perfectly describes what is happening in the classroom, academia has been slow to adopt the title. For a thorough perspective of the method and process of education by larp, papers using terms such as role-play, dramatic improvisation, drama-based teaching, active learning, simulation, and similar titles must be considered. However, if one renames larp as structured improvisational role-play or similar terms, many theoretical frameworks addressing its use pop up like a field of mushrooms to a trained mycologist. Following are some of the noteworthy frameworks mentioned or used by edu-larp designers, practitioners, scholars and theorists.

1. **Process drama:** Sarah Lynne Bowman, in her book *The Functions of Role-Playing Games: How Participants Create Community, Solve Problems and Explore Identity* writes ““Process drama”, a term popularized by Cecily O’Neill, allows instructors to teach a subject matter or moral concept using drama as a vehicle. Instead of passively absorbing the sometimes dry content of school work, Process Drama allows students to enact the course material, making school work more relevant, alive, and unforgettable for students. Process Drama instructors utilize improvisation to create fictional worlds where participants take on roles, answering the important questions of who, what, where, and why a character exists... “Process Drama aids students in learning valuable critical thinking, problem-solving, and teamwork skills.” (Bowman, 2010. p.43)
2. **Gamified drama:** Also using drama as the framework edu-larps, Michał Mochocki, Ph.D., an Assistant Professor at Uniwersytet Kazimierza Wielkiego in Poland, reported findings for his DEMOCracy Project, “a civic education programme with larps reenacting 17th century parliamentary traditions in junior high schools” (Mochocki, 2013, p. 64), which reached over 1100 junior high students over the course of 64 larps. His subsequent paper, “Edu-Larp as Revision of Subject-Matter Knowledge,” posits that larp is a type of drama education and uses the framework outlined by Brian Way in 1967, indicating that drama in education has had a “long and glorious tradition in Polish educational studies. It has been researched and promoted for over forty years, mostly based on the theories and practices developed in the UK” (Mochocki, 2013, p. 56). The essay also includes structural design notes, troubleshooting tips, and suggestions on implementation of “gamified drama” (Mochocki 2013, p. 55) into the classroom, ideally as “final revision of a large textbook unit” (Mochocki 2013, p. 55), such as from a history class (Mochocki, 2013).

3. **Situated Learning and Problem-Based Learning (PBL):** In “On the Transmutation of Educational Role-Play: A Critical Reframing to the Role-Play in Order to Meet the Educational Demands,” (Henriksen, 2004) Thomas Henriksen presents a theoretical framework for role-play in education as well as a section for applying this framework to education. Notably, Henriksen considers larp as an excellent method of supplementing traditional teachings techniques. He draws heavily from the works of Jean Lave, who, with Etienne Wenger, developed Situated Learning, where learning takes place in the same context to which that knowledge is applied. Henriksen uses Situated Learning as a key to implementing larp for learning. This essay, one of the earliest in the field, was inspired by the increase of educational larps in Denmark.
4. **Progressive Inquiry:** Developed at the University of Helsinki by Kai Hakkarainen, this framework sets up a cyclical investigative process by the students after the teacher has created a context using a fictional or real-world situation. The instructor provides collaborative multi-disciplinary opportunities for students to share information and challenge one another. This framework is similar to the work started in the 1990’s by history professor Mark Carnes, called *Reacting to the Past* (RTTP). RTTP is a college level history edu-larp program that began at Barnard College and is now implemented at hundreds of colleges around the world. In an online article for *The Chronicle of Higher Education* entitled “Setting Students’ Minds on Fire”, Carnes writes “...research shows that the strongest gains come from pedagogies that feature teamwork and problem solving. Experience also suggests that teams work harder when they’re competing against one another, and that students learn more when they’re obliged to think in unfamiliar ways.” (Carnes, 2011)
5. **Self-Directed Learning (SDL):** In 1975 Malcolm Knowles outlined the framework of SDL where students set, strive for, and assess their own educational goals. This is a framework for empowerment, which is one of the four ways that edu-larp works. Malik Hyltoft is one of the most recognized names in educational larps today. As co-founder, with Mads Lunau of Østerskov Efterskole (established in 2006), a Danish boarding school that uses an all-larp curriculum, he has one of the best perspectives on the efficacy of this method of instruction. In his 2008 essay “The Role-players’ School: Østerskov Efterskole,” he describes the pedagogy used and the school life experienced by the students of the first school in Denmark—possibly the world—to base its teaching primarily on role-playing. A second essay, “Four Reasons Why Edu-Larp Works,” discusses four areas where educational larps differ from traditional learning methods, and the advantages to this alternative. The four qualities are:
 - a. Distraction (from daily life). (Hyltoft, 2010, p. 45)
 - b. Motivation (clear reasons for learning the material) (Hyltoft, 2010, p. 48).
 - c. Activity (at an unusually high level, compared to traditional lecture style of teaching). (Hyltoft, 2010, p. 51)
 - d. Empowerment (allowing the student to make their own character decisions and live with the results). (Hyltoft, 2010, p. 53)

Østerskov Efterskole is currently one of the very few places where educational larps can be observed on a broad, long-term scale. Unfortunately, there is no control group to compare them to, but they have realized some interesting findings. The school is open to visitors and tours as well.

6. **Experiential Education:** The most obvious and prevalent framework, of course, is experiential education, which has its roots in the words of Aristotle: “for the things we have to learn before we can do them, we learn by doing them,” (Aristotle, 350 B.C.E., Ross translation, 1908). The Association for Experiential Education calls experiential education “a philosophy that informs many methodologies in which educators purposefully engage with learners in direct experience and focused reflection to increase knowledge, develop skills, clarify values, and develop people’s capacity to contribute to their communities,” (Association for Experiential Education, n.d., retrieved March 6, 2015). Almost all edu-larps can be seen as fitting the framework of Experiential Education. Mark Hoge, founder and director of Renaissance Adventures, a youth summer camp that features larp games, summarizes decades of experience in his article, “Experiential Learning for Youth through Larps and RPGs.” He writes that participants learn when:
 - a. They are wholly engaged (Hoge, 2013, p. 48)
 - b. They are frequently empowered to make decisions with consequences (Hoge, 2013, p. 48)
 - c. They face “diverse, tough challenges” (Hoge, 2013, p. 49)
 - d. “When supported by a physically and emotionally safe environment” (Hoge, 2013, p. 49).

He continues to explain the differences between larps and tabletop RPGs, the impact of their proprietary system of foam sword fighting, and the potential that “interactive storytelling and role-playing can truly transform traditional education” (Hoge 2013, p. 50).

7. **Hjalmarsson (2011):** In an honors thesis from Edith Cowan University in Australia, Sara Hjalmarsson presents “An Evaluation of Educational Live-Action Role-Play as a Learning Medium for Security Education and Training.” She argues that larps can be an excellent methodology for educating potential security professionals in the critical, possibly life-saving skills and competencies of “emotional intelligence, communication skills, reflective learning, judgment, planning, decision making, and ethics.” (p. 1) Her thesis goes on to create a framework, “because no formal Edu-LARP model exists today, a theoretical framework was built on related methodologies and learning theories” (Hjalmarsson 2011, p. 1). Hjalmarsson and others are developing more frameworks that use live action role playing. It is an emerging field.

Key Findings

Unfortunately, very little direct research is available for larps in general, and even less about educational larps, at least those with the moniker “larp.” But there are a few.

1. Current research on educational larps focuses on student engagement with the material. In Simkins' dissertation, “Negotiation, Simulation, and Shared Fantasy: Learning Through Live Action Role-Play,” he summarizes as follows: “Role-play, or role-playing game (RPG), is not often discussed as a tool for learning in classroom contexts...It may not be commonly used...Where it is found, it seems to serve two purposes: It increases interest and engagement in learning, and it creates a more authentic environment for learning,” (Simkins 2011, p. 76).
2. Sanne Harder provides one of the few front-line reports on educational larping in “Confessions of a Schoolteacher: Experiences with Roleplaying in Education,” (Harder, 2007) where she describes her decade of experience using larp in her classes for the Danish municipal school system called *Folkeskolen* or “people’s school”, a type of Danish school covering all required education from ages six to 16. Besides detailing a few case studies of her successes and failures, she also offers her opinion on “What types of teaching is role-playing ideal for?” (p. 233) She writes,
 - a. “When I choose to use role-play as a means of teaching it is because it is an excellent way of organizing teaching, not because the hobby appeals to its fans. In the 21st century, being a teacher is not about teaching pupils facts, it is about helping them internalize knowledge, skills, and competencies” (Harder, 2007, p. 229).
3. In his essay “Educational Larp: Topics for Consideration” (2012), Yaroslav I. Kot presents a brief but insightful history of educational larps in the former Soviet Union and Belarus, starting in the early 20th century and continuing to this day. He looks to Inokentiy Nikolaevich Zhukov (1875-1948) and Daniil Elkonin (1904-1984) as leading figures in the educational larp movement. He categorizes educational larps into different types and functions, features a table listing “Three Objectives of Edu-larp” (Kot, 2012) and provides tips for developing educational live action role-playing games. In a related essay, “The Larp Legacy of Innocent Zhukov” (Kot, 2013), Kot presents a compelling biography for one of the leading yet overlooked pioneers of larp and the practice of using larp for education.
4. A qualitative and quantitative study conducted by Bowman & Standiford (2013) before and after a semester-long series of science educational larps designed by Seekers Unlimited in 2013, hints at remarkable data: “The qualitative interviews revealed strong excitement for larping, praise for larp’s interactive capabilities, and an emphasis on the fun of learning through play. 100% of the 21 participants said they would like to learn through larp in the future” (Bowman & Standiford, 2013).

5. Barnard's Reacting to the Past college level history curriculum has undergone a number of formal double-blind assessment studies across different campuses using the program. The studies show that RTTP students, when compared with those enrolled in other general education courses, improved in certain salient categories associated with learning, including the development of an appreciation of multiple points of view on controversial topics and a belief in the malleability of human characteristics over time and across contexts. Speaking skills also improved substantially (Reacting to the Past, 2014). Their publications are available on their website, listed in References. Each lesson has extensive preparation—reading the primary and secondary sources from history—and a long debrief assessment of the material after experiencing it in a new format different from traditional methods of learning.
6. Despite being an eight-year-old all-larp school, the data from Østerskov Efterskole is limited—the obsession with standardized testing does not exist in Denmark at the same level as in the United States. Still, they have released some qualitative and quantitative information. School founder and former headmaster Malik Hyltoft wrote:

Østerskov Efterskole prides itself that its students do just as well (and sometimes a bit better) as students from all other [Danish] schools. And this in spite of the fact that 15% of the students have a mental handicap (ADHD and Asperger's), about one quarter is dyslectic and one quarter comes from homes that are socially challenged. All shares are somewhat larger than in the average Danish school. . . . When we started enrolling students for Østerskov, we soon realised that a disproportionately large group of them suffered from dyslexia. This made us look around at the larp environment, and we found that many dyslectics have found a way to prove their ability and smarts through larp, and this of course reflected on the school enrollment. . . . We soon had groups of students suffering from both ADHD and Asperger's, and these students also found ways to thrive in the school.

(Hyltoft, 2012, pp. 22-23)

All students of every differentiated level were involved in the edu-larps, even if they were not familiar or comfortable with role-playing. They need to participate, if not role-play.

After the completion of Østerskov Efterskole's first year, they discovered their class had a grade average of 7.9, compared to an intended national average of 8.0. Normalization for demographics was not performed for this figure, and in a personal interaction with this author the current Headmaster, Mads Lunau, said that their test scores average one grade level higher than the national level. In addition, Østerskov Efterskole's fluctuation score, which represents the ratio between the number of students enrolled through the year regardless of how many weeks they stayed in school and the number of full tuition years taught by the school, is significant. The higher the number, the greater

the disruption in a student's school year as they withdraw, transfer, etc. Østerskov Efterskole's fluctuation was 1.38 for 2006-2007, and they expected a fluctuation of 1.25 for the 2007-2008 year. The national average is 1.65. "The low fluctuation is a very positive indication of the school's ability to engage the pupils in school life and make them feel like they belong" (Hyltoft, 2008, p. 22).

According to Mads Lunau, within a year the majority of students acquire roughly a 10% grade lift in all subjects from their previous transcripts. The boost for special needs students (e.g., those with ADHD, Asperger's, dyslexia) is even higher. An average of 70% of their students pass the general education qualifier for higher education, compared with 60% at other boarding schools (M. Lunau, personal interview, April 8, 2012).

7. Finally, one anecdotal datum: after running a week-long educational larp at the New Roads school in Santa Monica, California, one of the instructors, Tedd Wakeman, revealed in an interview an interesting observation,

Too often the teacher is maybe disengaged with the experience that the students are having. If you are standing in front of a group of kids and lecturing to them, you are not really taking in what those kids are experiencing throughout that process. I think for us to be able to take on roles and really play characters not only encourages the students to be more creative in their process but also breaks down that barrier of "is this cool, is this silly" when they see their teachers participating on a grand scale. (Wakeman, 2013, personal interview)

With the teachers taking the material seriously (and fun), the students, too, took it seriously.

Case Study Two: The Great Phlogiston Debate

Inspired by a Royal Society educational larp created by Østerskov Efterskole, Seekers Unlimited produced a larp, *The Great Phlogiston Debate*, for an 8th grade science class. It ran at a charter school in South Los Angeles with a 53% African-American, 46% Hispanic, and 1% Pacific Islander student population (Movoto Real Estate website, school demographics for 2012). One-quarter of their students live below the poverty level. There is one computer lab shared by each class, and although each classroom has two or three computers, they do not all work and the Internet connection is spotty.

Seekers Unlimited produced eight educational larps that were aligned to California Science Standards. Following the Østerskov Efterskole model, each lasted for one week, roughly 60-90 minutes, or the duration of their science class. The teacher was running the scenario, but the designers were often present to observe and, if needed, adjust the larp.

The Great Phlogiston Debate asks students to play real world scientists who were active at the end of the Age of the Enlightenment, during the late 18th century. One of the biggest scientific principles under scrutiny at that time was the theory of phlogiston, a substance that supposedly existed in elements that burned and was released when set afire. The concept was disproved and the correct understanding of combustion was discovered in this time period. The goals of this scenario are to:

1. Introduce science as a developing, changing field to students.
2. Emphasize the importance of research, study, observation, and experimentation.
3. Place the study and presentation of science into a historical context.
4. Impart comprehension of some of California 8th grade science standards.

Students were given characters on Monday after the larp's rules, purpose, and setting were explained. On Tuesday and Wednesday, they researched their characters and theories in the school's computer lab. On Thursday they role-played and on Friday a focused group discussion wrapped up the concepts.

Each student was given a character sheet that contained a short biography and picture of the historical figure, plus a list of theories the character believed. The theories were based on grade-appropriate California Science Standards and related to the historical period. Understanding and explaining these theories were the goals for the character to accomplish during role-play, and goals for the student to complete as a project after role-play. A structured goal system allows both students and teachers to know where they are in terms of understanding the material.

Some of the theories the characters believed were spurious, such as phlogiston and mesmerism. The setting was a garden party hosted by Antoine and Marie-Anne Lavoisier, a.k.a. the Father of Modern Chemistry and his wife, who was invaluable in her husband's research and work. Other historical people in the sciences from around the world populated the party. Due diligence was paid to ensure the person was alive in 1785, and, if possible, in France or at least Europe. To include enough female scientist characters for the girls in class, geographic boundaries had to be stretched. The teacher also had a character to role-play: Queen Marie Antoinette. For male instructors, their role would be Nicolas Caritat, marquis de Condorcet, the Secretary of the French Academy of Sciences.

The students were to mingle and talk to one another about the theories they espoused. Some had specific goals such as listen to all the theories of female characters or all characters from Italy. Most had to present and defend their theory to Marie Antoinette—thus making a scientific argument to the class instructor. Some were out to disprove one another's theories, e.g., one of Benjamin Franklin's goals was to debunk Franz Mesmer's theory of animal magnetism. Historical fact: Franklin and Antoine Lavoisier were commissioned by King Louis XVI of France to do exactly that. All of the talking between students raised the volume of the classroom far above normal. However, this chaos, observed and managed by the teacher in character, was expected. It also indicated peer-to-peer learning. The teacher was not a bottleneck to the knowledge, students could disseminate it among themselves.

Students were allowed to experiment to generate data and improve their arguments. They had to use the scientific method and think of an experiment to test their theory, but no actual experiment was conducted due to limited lab resources. Seekers Unlimited staff improvised the results for the students on paper.

Although enjoyed by all, flaws from this first run were exposed:

1. Students had two theories they had to learn, which was one too many.
2. The vocabulary on the character sheets was prohibitive to some students, particularly ESL individuals.
3. The number of theories discussed meant few were seriously considered or debated, and often students would simply read their theory to one another.
4. Students who held the same theories did not really collaborate as a team for a group presentation of the same theory. Some students did not find their fellow phlogiston believers until late in the larp.
5. Only a few students performed experiments, and they occurred late in the event.

These setbacks can be corrected for subsequent runs, and a number of interesting benefits were observed from this first experience:

1. Female students were exposed to famous, historical real world female scientists, with science presented as a viable career field for women. A few expressed interest in these occupations. Again, these girls were ethnic minorities in a poverty-stricken urban environment.
2. All students learned to appreciate the logic of the scientific method, especially the importance of replicating an experiment to get the same result.
3. Students realized that scientists are not always right, and new evidence can disprove their long-cherished idea.
4. Students would debate ideas and theories together, without teacher involvement (peer-to-peer learning).
5. The teacher could maintain discipline both in character (the Queen), and out of character (teacher).

A rough version of *The Great Phlogiston Debate* is freely available on DriveThruRPG.com. A completed commercial version will be released in 2016.

Assessment Considerations

Although more research on the power of educational larps to engage students (and teachers) is welcome, what is sorely lacking in this field is a comparative study between learning by larp and learning via traditional pedagogy. A school with two classes of the same grade level and standards would be ideal for this kind of experiment. However, factoring out teacher ability and student ability would be required.

One of the most difficult aspects of assessing educational larps is the difficulty of judging someone's role-playing—if a student's character succeeds or fails at a task, does that indicate the student herself knows or does not know the material? One benefit of role-playing a character in a larp is that the real person, under an alibi of “my character does not know” can experiment and fail at their objective without penalty. But another method for assessing that student's real understanding of the concept must be created separately from the points or badges they may gain in the game or larp. This is already a problem for assessing the efficacy of digital games, as evidenced in this study. Subrahmanyam explains that,

A recent year-long study conducted by the Department of Education (DOE) found no gains on reading and math scores following the use of reading and mathematics software in the classroom. For virtual worlds to live up to their hypothesized learning potential, we not only have to show that they lead to learning but, more importantly, the learning in question must transfer to academic contexts.

(Subrahmanyam 2009, p. 1079)

Although almost every educational larp demands some kind of presentation by students to the teacher about the material, either written or orally, it is unknown if talking for ten minutes to the teacher about a complicated subject can guarantee the student will fill in the correct bubble on a standardized test.

There is a promising approach to assessment by using evidence-centered design, as explained in the paper “A Brief Introduction to Evidence-centered Design” by Russell G. Almond, et. al.,

The evidence-centered design (ECD) project at Educational Testing Service (ETS) provides a conceptual design framework for the elements of a coherent assessment, at a level of generality that supports a broad range of assessment types, from familiar standardized tests and classroom quizzes, to coached practice systems and simulation-based assessments, to portfolios and student-tutor interaction...Designing assessment products in such a framework ensures that the way in which evidence is gathered and interpreted is consistent with the underlying knowledge and purposes the assessment is intended to address.

(Mislevy, Almond, Lukas, 2003, p. 1)

The following steps are recommended for improving educational larp assessment:

1. Recognize that educational larps are not always labeled as such, but they occur frequently in classrooms around the world under other names such as experiential learning, role-playing, etc. Proper identification of this technique will highlight many more programs available for study.
2. Design an experiment of at least one semester to one school year between two similar classes, with one receiving traditional education and the other using educational larps comparing attendance, engagement, test scores, enjoyment, and further interest in the topics.
3. Accept other aspects of evidence of student comprehension in addition to raw test scores such as presentations, essays, peer-to-peer tutoring, and the ability to hold a conversation about the topic with the teacher.
4. Survey educational larp teachers about their personal satisfaction with a larp-based curriculum compared to traditional curriculums.

Future Needs

Larp is barely recognized as a word (see what your spell checker or auto-correct thinks about it), and hardly, at least in America, seen as anything beyond an escapist hobby, even among dedicated veteran larpers. However, with more study and use of larp in classrooms, hard data will be difficult to ignore by critics, academics, academia, mainstream media, and even the most finicky group of all: live action role-players. An interesting study would be to measure the level of engagement and enthusiasm teachers have for using live action role-playing in their classrooms, and how much of that excitement transfers to students, if at all. A longitudinal study of the effects edu-larp has on standardized testing not only in the grade of the student but in their future educational career is long overdue. Hopefully this chapter will spark others to look at, consider, implement, and test whether or not larp is indeed an amazing tool for learning or merely another fad. The field, and future, is wide open.

Case Study Three: Reacting to the Past

Neil Patten and Donna Smith, two communication faculty members at Ferris State University, were searching for ways to further engage their students in their public speech course. Both faculty were exposed to the *Reacting to the Past* (RTTP) pedagogy at the annual conference at Barnard College. RTTP uses role-playing to engage students in historical settings. Each student is given a role to play with a series of victory objectives. These objectives are unique to the character, while some of them overlap into others. These common goals create factions that debate issues at hand. A typical breakdown of a class would have 1/3 for an issue, 1/3 against, and 1/3 indeterminant. Indeterminants are historically correct individuals who had little directly related to the argument, but whose lives could be influenced by the decision. These students play the swing votes in the class.

While there are many published RTTP scenarios to choose from, both faculty agreed on a scenario based on the Chicago 1968 Democrat National Convention. This setting allowed the students to take on large personalities and debate issues such as civil liberties and the Vietnam War. The factions here were very muddy as a mix of Senators, protesters, and media might agree on one issue, but act as fierce rivals in the next. Students played all the various roles. Some students led protest marches and sit-ins, but chose not to escalate to full riots (as was a goal of some of the roles). Media roles were able to report on all the happenings during class and interview a few personalities, uncovering their hidden objectives. Senators made public statements for or against a vote, but the real decisions and opinions only came out in the quiet corners of (fake) smoke-filled rooms.

Students transformed from note-card reading, grade-driven, submissive individuals with small voices into emotionally charged, heatedly debating, fact spewing, engaged participants. This became their game while the faculty sat back and watched history unfold in new ways.

Students were surveyed about their experience with *Reacting to the Past* at the conclusion of the course. Of the 38 students who completed the survey, 97% either agreed or strongly agreed that RTTP was a unique learning experience. 79% either agreed or strongly agreed that their public speaking skills were enhanced while playing RTTP. 87% of the students reported they enjoyed the RTTP experience. Using RTTP in the classroom will continue. The next semester will feature an equal number of sections running RTTP and a traditional classroom curriculum. This will allow the case study to include comparative data.

Best Practices

Following are a list of principles to help in the design and running of educational larps for developers and instructors that have been harvested from a variety of sources.

1. **Create structured goals.** In his essay “The Use of Structured Goal Setting in Simulation” Stephen R. Balzac writes about the “need to keep the participants actively involved and interested in the scenario. A failure to maintain interest means that the simulation or game fails in its purpose” (Balzac, 2013).
2. **Manage the chaos.** A typical educational larp can appear to be complete bedlam. However, this indicates high energy, enthusiasm, and, strangely enough, deep engagement with the material. It is the student who is sitting quietly alone, the preferred state of traditional learning, who may need some extra help.
3. **Encourage freedom and allow for failure.** Educational larps are, at heart, improvisational. So, too, is teaching. Expect the unexpected and allow students to experiment, attempt, and fail. Let them see and experience the consequences of their actions, but be sure their mistakes are reviewed and explained, not criticized or judged. Too often tests and teachers limit the life options of students. If a student tests poorly on one math test, they are pressured toward the humanities. Danish all-larp school Østerskov Efterskole’s philosophy is to open all (career) doors for the students and let them close the ones they do not want to pursue. In larping, it does not matter if you lack complete comprehension of general relativity; you can still role-play Albert Einstein. If the student makes a mistake, it will not go on their permanent record. According to Lunau, “[Students] can safely learn failures by wearing the mask of role-playing without getting hurt” (M. Lunau, personal interview, April 8, 2012).
4. **Take it seriously.** Serious games require respect. When dealing with emotions, as role-playing naturally will, the potential for hurt feelings exists. Avoid thinking that because “it is just a game” that the activity is frivolous. Additionally, when students see the teacher makes an effort in costuming, personality affectations, accents, etc., they, too, will follow. If the teacher is dismissive, the students will react in kind and learning could be stunted.
5. **Include time for preparation and, critically, debriefing.** Avoid launching directly into an educational larp, even with students who have participated in the pedagogy before. Prior to starting, be sure to state what the learning goals are, besides salient points about the larp. A post-larp session that reviews the material, answers questions, checks on understanding, and achievement of learning goals is mandatory. The debrief session should be broken into two parts: presentations and summation of the learning objectives, opinions, and critiques of the larp. Students may be very eager to talk about what happened in the larp, or what they would like to do differently. It helps to have that time, but it is far more important that the instructor provides a thoughtful denouement that recaps the knowledge generated in the event, as well as leave questions for students to ponder.

6. **Participation is required, role-playing is not.** Some students will be unwilling or unable to role-play at the same level as the others. Rather than dismiss them to a completely different task, bring them into the teacher's realm as an assistant. Perhaps they can keep track of time in a debate, record the votes of a mock election, hand out materials, or remind other students of rules. Always ask all students to participate, but allow some to have a different role than improvisational character acting. Like everything else, it is up to the teacher's discretion. No one knows a class better than the instructor. If a student lacks proficiency in the primary subject, they may enjoy or possess competency with a secondary topic in the larp. It is easier to integrate multiple subjects than focus solely on one. Educational larps work well in a holistic sense across multiple subjects. It will be easier to learn about astronomy and math while role-playing the trial of Galileo (one of the Reacting to the Past scenarios) in a history larp.
7. **Facilitate cooperation and peer-to-peer learning.** In a traditional classroom situation, learning is a bottleneck contained by a teacher or a textbook written by experts years ago in a city far away. Educational larps should encourage student characters to assist learning merely by allowing one student to talk to another, instead of listening quietly to a teacher. At best, a classroom of 20 students and one teacher becomes 21 teachers in an educational larp.

How to Tell if an Educational Larp is Working

Through 18 educational larps produced over the last four years, one author has discovered eight aspects of edu-larps that may indicate student learning. This is purely anecdotal evidence, and has not been scientifically determined nor peer-reviewed.

1. **Intrinsic motivation:** Students often become intrinsically motivated to learn—not to get a grade or because the teacher assigned them work, but because they want to improve their character or complete the narrative adventure.
2. **Emergent gameplay:** When an issue arises in the adventure and is solved within that same adventure, in what is called emergent gameplay, student attention and personal investment is very high.
3. **Student empowerment:** When students are empowered to alter the rules of the educational larp, their involvement increases. In one educational larp about Ancient Mesopotamia, a student on his own time and volition researched his role as a priest and presented a case to the teachers as to why priests should have a higher income. The teachers agreed and the priests' income rose—this decision and implementation took less than five minutes. How long would it take an educational video game to change its program based on the unexpected research of a student?
4. **Cognitive and affective learning:** Student learning can often be on a deep conceptual level, not just cognitive, but affective (the emotional aspect), and even, to some degree, the psychomotor realm. One part of the Ancient Mesopotamia scenario asked students to design cuneiform symbols for different trade goods. They were given real clay and

styluses (pencils) with which to work. When confronted with the arduous task of drawing a fish, one girl said “We don’t have to make it look like a fish, we just have to all agree that what we draw means fish.” (Anonymous 6th grader playing Seekers Unlimited’s “Ancient Mesopotamia” edu-larp). This realization about symbols and written language arose because students were having trouble making legible fish symbols in the clay.

5. **Emotional attachment to intellectual facts:** Knowledge attached to emotional baggage has a greater chance of retention; it is easier to recall the quadratic formula when it is used to save the ship from plunging into a black hole than filling a Scantron bubble.

Additional practice tips for educational larps are available in Michał Mochocki’s article “Edu-Larp as Revision of Subject-Matter Knowledge” (2012) and, with some caveats, the January 2009 publication from the Software & Information Industry Association (SIIA), “Best Practices for Using Games & Simulations in the Classroom: Guidelines for K-12 Educators.”

Resources

Books and Journals

- Andressen, M. (2012). *Playing the Learning Game: A Practical Introduction to Educational Roleplaying*. Lulu.com.
- Bowman, S. L. (2010). *The Functions of Role-Playing Games: How Participants Create Community, Solve Problems and Explore Identity*. Jefferson, NC, McFarland & Co.
- Dombrowski, K. (Ed.) (2010) *Larp: Einblicke: Aufsatzsammlung Zum Mittelpunkt 2010*. Braunschweig, Germany: Zauberfeder Verlag.
- International Journal of Role-Playing (<http://ijrp.subcultures.nl>)

Essays and Articles

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Networks and Groups

Association for Experiential Education (<http://www.aee.org>)
Education-Larpers' International Network (ELIN) (<http://www.edu-larp.org>)
EduCade (<http://www.educade.org>)
EdWeb (<http://home.edweb.net>)
Games for Change (<http://www.gamesforchange.org>)
Learning Lab Denmark (http://valhalla.norden.org/links/learning-lab-denmark-en?set_language=en)

Educational Larp Schools, Companies, and Programs

GameDesk (<http://gamedesk.org>)
KidZania (<http://www.kidzania.com>)
LajvVerkstaden (<http://www.lajvverkstaden.se/in-english/>)
National Model United Nations (<http://www.nmun.org>)
Østerskov Efterskole (<http://osterskov.dk/om-os/osterskov-in-english/>)
The Pericles Group (<http://www.practomime.com>)
Pretend City Children's Museum (<http://pretendcity.org>)
Reacting to the Past (<http://reacting.barnard.edu>)
Renaissance Adventures (<http://www.renaissanceadventures.com>)

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