

ABSTRACT OF CAPSTONE

Stephanie L. Bundy

The Graduate School

Morehead State University

April 3, 2020

CULTURAL SIMULATIONS:
A NEW APPROACH TO STUDY ABROAD PEDAGOGY

Abstract of Capstone

A capstone submitted in partial fulfillment of the
Requirements for the degree of Doctor of Education in the
College of Education
At Morehead State University

By

Stephanie L. Bundy

Stillwater, Oklahoma

Committee Chair: Christopher T. Miller, Professor

Morehead, Kentucky

April 3, 2020

Copyright © Stephanie L. Scott, April 3, 2020

ABSTRACT OF CAPSTONE

CULTURAL SIMULATIONS:
A NEW APPROACH TO STUDY ABROAD PEDAGOGY

As study abroad enrollment gains popularity with U.S. students, educators are concerned with students' lower attention to academics while on location coupled with poor performance on tests. Study Abroad programs are stereotyped as being easier or a glorified vacation for students and faculty. A possible solution might be met in the Social Science or Humanities study abroad classroom with using a Role-Playing Game (RPG) simulation of significant historical time periods in a host country's past. This project focuses on the building blocks needed for an educator to construct a role-playing game for Social Science/Humanities study abroad coursework. It outlines a design plan for educators ultimately to build their own (RPG) to be implemented in the Humanities or Social Science study abroad classroom. Using RPG Maker MV, the design is structured in five stages: Needs Analysis/Assessment, Historical Timeline, Fictional Timeline, Digital Architecture, and Playtest/Critique.

KEYWORDS: Gaming, Simulation, Immersive Learning, Learning Theories, Transformational Change, International & Cultural Issues, Instructional Design

Candidate Signature

Date

CULTURAL SIMULATIONS:
A NEW APPROACH TO STUDY ABROAD PEDAGOGY

By

Stephanie L. Bundy

Approved by

Tonia Dousay
Committee Member Date

Sara Lindsey
Committee Member Date

Christopher T. Miller
Committee Chair Date

Timothy Simpson
Department Chair Date

RULES FOR THE USE OF CAPSTONES

Unpublished capstones submitted for the Doctor's degree and deposited in the Morehead State University Library are as a rule open for inspection, but are to be used only with due regard to the rights of the authors. Bibliographical references may be noted, but quotations or summaries of parts may be published only with the permission of the author, and with the usual scholarly acknowledgements.

Extensive copying or publication of the capstone in whole or in part also requires the consent of the Dean of the Graduate School of Morehead State University.

A library that borrows this dissertation for use by its patrons is expected to secure the signature of each user.

Name

Date[illegible]

CAPSTONE

Stephanie L. Bundy

The Graduate School

Morehead State University

April 3, 2020

CULTURAL SIMULATIONS:
A NEW APPROACH TO STUDY ABROAD PEDAGOGY

Capstone

A capstone submitted in partial fulfillment of the
Requirements for the degree of Doctor of Education in the
College of Education
At Morehead State University

By

Stephanie L. Bundy

Stillwater, Oklahoma

Committee Chair: Christopher T. Miller, Professor

Morehead, Kentucky

April 3, 2020

Copyright © Stephanie L. Bundy, April 3, 2020

ProQuest Number:27955986

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent on the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 27955986

Published by ProQuest LLC (2020). Copyright of the Dissertation is held by the Author.

All Rights Reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

DEDICATION

To all those who told me I didn't have what it took, I wasn't meant to be a doctor, or I should learn to settle for what I already have. To the people who quit me, grew jealous or spiteful of me and tried to tear me down on this journey. Let this be a lesson in humility. You only made me stronger.

For my wonderful husband, Kenneth Bundy, who believed in me, motivated me, and endured countless cranky weekends. I will make up for all the lost hours of gaming we sacrificed so I could finish this. I will always be the tank to your sniper. I love you and I like you.

For Charlie who was a better person as a dog than any human being on Earth. You were my best piece of poetry and you always saw me as a doctor before anyone else.

ACKNOWLEDGEMENTS

I would like to acknowledge the educators who helped build this idea up from nothing, who told me my thoughts had merit and otherwise promoted my professional pursuits. Without your words, I would never have gone anywhere. Thank you, Dr. John Curry, for your strength, tutelage, candor, and kindness. Thank you to my chair, Dr. Chris Miller, for the countless drafts and confusingly worded sentences you would have to unravel. Thank you to Dr. Tonia Dousay and Dr. Sara Lindsey, for your helpful feedback and kind criticisms. Each of you have effortlessly modeled leadership and mentorship in academia, and I am eternally grateful for your guidance.

Lastly, I would like to thank game designers everywhere for their attention to detail and great passion for immersion. Thank you, CD Projekt Red and Ubisoft Montreal, for believing that narrative in videogames can be just as influential as boss fights. You build games that teach players literature, critical thinking, and the humanities with the skill of artisans.

TABLE OF CONTENTS

	Page
Chapter 1: Executive Summary	14
Core of the Capstone	14
Definition of Terms	17
Chapter 2: Review of Literature	19
Study Abroad Program Designs	20
Longevity	22
Program Types	23
Assessment	24
Management and Coordination	28
Study Abroad Learning Theories	31
Experiential Learning Theory	32
Transformative Learning Theory	40
Immersive Learning Theory	44
Game-Based Learning	47
Identity	51
Motivation	52

Evaluation and Application	53
Other Learning Discoveries	54
Use and Evaluation of Serious Games	57
Game-Based Learning Architecture Theory.....	60
Narrative in Game Design	65
What Is Next?	69
Chapter 3: Procedures	71
Reasoning for Capstone	71
Instructional Design Strategy	78
Chapter 4: Identified Strategies and Product	84
Needs Assessment and Analysis	84
Section One of Stage 1: Building Assessment	84
Section Two of Stage 1: Compiling/Coding.....	92
Section Three of Stage 1: Conclusions.....	97
Historical Timeline.....	98
Fictional Narrative.....	103
Exposition.....	104
Rising Action.....	110

Climax	114
Falling Action	115
Resolution.....	116
Conclusions over Narrative	117
Chapter 5: Conclusions	118
Architecture.....	118
Critique.....	129
Next Steps	141
Limitations of the study.....	144
References.....	146
Appendix A: Project Blueprint	164
Introduction	165
Stage 1: Needs Assessment and Analysis	166
Step 1: Administer the Survey.....	166
Step 2: Compiling/ Coding the Data.....	171
Step 3 of Stage 1: Processing into Game Elements.....	174
Stage 2: Develop Historical Timeline	175
Stage 3: Fictional Narrative.....	178

Exposition.....	180
Rising Action.....	181
Climax.....	184
Resolution.....	185
Stage 4: Architecture - RPG Maker MV Tutorial	188
Step 1: Making the Map	188
Step 2: Creating an NPC or Event	191
Step 3: Customizing Your Character Avatar	200
Step 4: Initiating Conflict	202
Step 5: Time System.....	226
Step 6: Winning/Losing the Game.	235
Stage 5: Playtest and Critique	238
Conclusions	247
Appendix B: Tutorial Playlist	249

Chapter 1: Executive Summary

Core of the Capstone

Study abroad in its current academic form in America began at the University of Delaware in 1923. The main goal of that original study abroad program was to promote cross-cultural understanding by allowing students to live in a foreign country and take coursework that will contribute to a degree at the home institution. Since its inception, study abroad theory has undergone multiple revolutions of thought on a program's fundamental mission or goal, tackling or further complicating issues of bias, hegemony, accessibility and social inequality in education. Today, study abroad opportunities are diverse and heavily customized depending on class size, course goals, student demographic, and time on excursion. Due to its customization and the upward trend in finding a globalized workforce, Study Abroad education has increasingly become more popular with American teachers. One out of every ten U.S. undergraduates will study abroad before graduating (Institute of International Education, 2019). The year 2018, the most up-to-date data available, marked an all-time high for enrollment of U.S. students in study abroad programs with an increase of 3% over the prior year and 341,751 students (Institute of International Education, 2019).

With this increase in popularity combined with the educational goals study abroad offers, new stereotypes began to form about what the purpose of study abroad was to students, faculty and the school at large. From the outside looking in, study

abroad gives the impression of being easy to build as a program and through instruction which only encouraged students to believe the material was easier to pass. Students might view study abroad opportunities as nothing more than a vacation with easy assignments and more freedom to explore college hedonism (Kowarski, 2010; Pedersen, Skidmore, & Aresi 2014). Faculty on the outside of a program might associate the work with easy student enrollment in classes and a paid vacation for teachers. These impressions of study abroad compound the struggle to educate when trying to steer faculty and student attention on learning opportunities that support student success in the coursework.

Given all of this background on the current educational climate surrounding humanities and social science curricula during study abroad, this capstone seeks to construct a blueprint for a digital simulation instructional tool for educators to adopt on various study abroad programs. The game can be deployed for PC, Mac, and even through a smartphone application to best reach students with their hardware choices. This blueprint will address only the essential elements, leaving open-ended opportunities for which educators may tailor their product to their program and teaching material. It seeks to embed students in communities of a host culture, introduce them to culturally significant issues, and tasks them to problem solve for historical and fictitious avatars. The student's primary goal is to ensure their characters not only survive but thrive. These simulations can take place during pivotal events in the host culture's history—For example, the French Revolution for a study abroad excursion in Paris or the Irish Potato Famine for an excursion to Dublin.

Using simulation as an instructional tool on a study abroad trip presents the students with an immersive experience not unlike the cultural immersion they are already experiencing and would potentially foster a different kind of instructional feedback that is more measurable and structured than in past traditions. The simulation game is meant to help facilitate and assess cultural competency and as such must be used as a part of an already in place study abroad program.

Definition of Terms

The following are the definitions of terms used throughout this project:

Assessment. Any materials or assignments issued to students during a class with the intention of the teacher using this material or assignment to evaluate if a student has mastered linked learning objectives set forth by the course overall.

Avatar. The icon or image on a video game screen that is the center of all player agency in the video game world. The player manipulates this icon to negotiate and communicate in the videogame.

General Education Courses. Educational courses that count toward the basic requirements common to all majors for college freshmen and sophomores to complete before they degree-specific courses for their degree program. Unlike upper-level coursework, general education electives may not be related to a student's final degree program but are prerequisites in order to progress into their majors.

Intercultural Competency. A set of skills affecting cognition and behavior which can lead to better, more efficient communication between people of different cultures. The acquired knowledge from intercultural competency affects the decisions made in communication exchanges and can be learned through exposure to a variety of unfamiliar cultures.

Residential Program. A study abroad program in which students stay within the college dormitories of a host country's educational facility. These programs tend to last longer than non-residential programs and the students are not expected to travel to many different locations.

Role-playing game. A form of simulation in which a player must assume the role of a fictional character in a simulated setting. The player must make choices for the character that is in the character's best interest. Abbreviated to RPG.

Short-term Study Abroad. A study abroad program in which students attend courses on the go, sometimes in various locations, and the time frame usually is less than 16 weeks: a traditional semester length.

Simulation. A computer model or imitation of real life with certain realistic rules given to a computer program. This is designed to mimic a realistic process to promote user efficiency or comprehension.

Study abroad. An educational program run by a secondary or postsecondary institution in a home country with the intent of sending students to a host country for an agreed upon time frame. This program enrolls the students in courses to be taken at the host country but the credits for the course are accumulated for a degree at the home country's educational institution.

Chapter 2: Review of Literature

Current trends in education concerning technology use inevitably involve maintaining relevance with a more technologically inclined student base (Fang, 2009; Machin, McNally, & Silva, 2007). Two major schools of thought that are represented in the literature revolve around the use of technology in teaching: those who fully embrace it as a useful enhancement to previously constructed teaching tools and those who reject its use in the classroom claiming technology is a distraction from the intense curriculum being addressed (Campbell, 2005; Huesca, 2013; Jackson, 2012; Mikal & Grace, 2012). The technology base with which instruction is building relies upon the current generation of students and their comfort with and skill surrounding technology to navigate their daily lives.

This same generation of students, those classified into the Millennial and Generation Y age groups, use more technology based materials and are, thus, more aware of other cultures and countries than in any previous point in history (Pew Research Center, 2010; Strauss and Howe, 2000). Their awareness of the world brought on by immersion in technology can attract them to study abroad classrooms. “Developing an enhanced global awareness” (Rhodes, 2019, para. 2) is one of the most prominent narrative trends when viewing study abroad literature either from the promotional or testimonial standpoints. Many students consider on-location learning much more applicable to their current life goals than being in the traditional classroom setting. The main areas of investigative research concern the following

questions: What would a simulation look like for study abroad purposes? What alternative technologies have been successful for study abroad classrooms and how were they successful? In what ways could a simulation be tweaked to be used in other contexts? What could a simulation potentially offer study abroad programs during excursions? To address these questions, the research literature can be categorized into three major spheres of study: The traditional instructional models used in the past for study abroad programs, the role of technology thus far in study abroad instructional models, and how simulations in particular have been incorporated into instructional models for general education coursework.

Study Abroad Program Designs

There is a long history behind study abroad, a history which established the salient characteristics inherent in today's program design through a timeline of politics and experimentation. William Hoffa (2007) maps the historical timeline that led to the creation of the contemporary U.S. study abroad practice. It can be contended that study abroad has its beginnings all the way back to Ancient Greece, as Aristotle himself traveled from Macedonia to Greece to receive his education. However, Emo of Friesland has been credited as the first formal study abroad student because he traveled from his home in Holland to attend Oxford University in 1190. Many others followed his example in the years leading up to the Middle Ages, when a lack of resources led to lower literacy rates and living conditions. This meant that fewer students were able to travel and the study abroad tradition was left to the higher

social classes who could afford it. In the 17th-18th centuries, a strong emphasis was placed on aristocratic youth to participate in what was called The Grand Tour: a custom equated to an educational rite of passage in which these youths would spend months to years traveling Europe to be exposed to the cultures of classical antiquity. Customarily speaking, this trek was meant to instill in the youth a sense of well-roundedness in their educational passions and appreciation.

During the time of Napoleon, geography became political as countries participated in colonial land grabs. War made travel highly difficult and dangerous, yet diplomats and dignitaries all over Europe implored their rulers to facilitate the free exchange of thought between territorial divides, stressing that it is through this exchange that true peace can be attained. The peace councils held after the Napoleonic Wars laid the groundwork for international education programs and practices still used today. “In 1792, French educator Marc-Antoine Jullien wrote to Louis XVI, demanding the creation of a worldwide commission on education composed of education associations from the various European states” (Lee, 2015). This came to fruition in 1876 when a permanent organization was created to manage international education in the United States, Germany, France, and England. War and politics continued to evolve the face of study abroad education to what it is today, but this beginning was most responsible for the standardization of guidelines for developing and maintaining a study abroad program. No matter how they are organized or worded, most study abroad programs to this day follow a basic structure and process which addresses longevity, program types, instructional methods,

management and coordination, and itinerary (Carnegie Mellon University, 2011; University System of Georgia, 2020).

Program components should be considered for any study abroad excursion prior to implementation of instructional material. The most variable component concerns the time span of the program followed by itinerary and course types. On the other hand, the kinds of administrative permissions, host-school coordination, and trip advertising are more standard with any trip. Developing and tailoring these components can prove insightful to the creation of a study abroad instructional tool using simulation.

Longevity

In terms of longevity, study abroad programs can range from one week to multiple years. Technically, students could complete an entire four-year degree program and beyond under the purview of study abroad by simply studying outside of their home culture. In the United States, there are few programs that allow a student to participate in a four-year study abroad program, so the opportunity may not be present enough to foster enough conclusive data. Be that as it may, current trends in America indicate more interest in short-term study abroad courses: “65 percent of students [are] studying abroad on programs less than eight weeks in length” (Institute of International Education, 2019). Factors affecting longevity include term limits of course or program work and student budgeting. Of these short-term programs, American students are opting more for summer study abroad experiences to add on to

the coursework they are already receiving at home in the traditional school year (Institute of International Education, 2019; Nagengast, 2017).

In the 2017/2018 academic year, U.S. students chose to either study abroad during a single semester (30.3%) or during the summer (38.5%), totaling 68.8% of possible choices. Additionally, of those choosing to travel during the summer, the largest percentage of students travel between one to eight weeks, a grouping which has remained consistent for eight years of data (Institute of International Education, 2019). Study abroad educators must decide on the length of the program based on cost, content of study, student preferences, and host-culture partnership. In terms of cost, student tuition in America is at an all-time high, so it might be difficult for students to afford a long-term study abroad program. Additionally, the material being covered and the goals of the study abroad program may necessitate more or less time in the host culture. For example, a general education Humanities course might be less intensive than an upper-division Foreign Language course, which itself may require more immersive opportunities to master conversational fluency.

Program Types

There are several types of study abroad programs (Engle & Engle, 2003). An integrated university study would have the students attend school and perform coursework as usual but at a host university. A reciprocal exchange program essentially swaps students from different countries. A faculty-led, short-term study abroad program consists of students being chaperoned in a foreign country for less

than a semester (Whalen, 2008). These program types are entirely dependent upon the foreign partnerships established prior to the beginning of recruitment for the program. The program must be linked either to an educational institution abroad or otherwise through a network of tourist/consumer services. Otherwise, the program will not be able to establish an understanding on use of facilities, residencies, and other living requirements for students and faculty. Many of these programs are institution-operated, but some can be outsourced to private companies specializing in work with individuals or institutions. One such company is called Education First that acts as liaison between the host country, students, and the program coordinator. In this scenario, activities and itinerary as well as student payment options are decided and managed by the company with limited input from the coordinator. On the other hand, while the institution-operated programs manage their own schedule of student payments and possibly student payment delinquency, more freedom is afforded an institution-operated program as it pertains to student activities and itinerary (Sachau, Brasher, & Fee, 2010). For the purposes of this project, the short-term, institution-run program will be described in depth.

Assessment

Most assessment materials in short-term study abroad programs, such as essays, presentations, or oral interviews occur near the end or upon return from the trip after students have decompressed and can begin examining their memories (Bell, Shallenberger, & Torres, 2018; Nagengast, 2017; Sachau, Brasher, & Fee, 2010). For

instance, students might have a reflective essay over one cultural event in which they participated, or they might compile their photographs into a YouTube presentation marking the highlights of what they learned while abroad. Essentially, these assessment methods are intended to help the student make sense of the experiences in which they found themselves and to organize and express their impressions to show personal growth as a result of the program.

It has long been the belief that intercultural competency, a major goal of study abroad, may only be measured through qualitative assessment types (Engle, 2015; Vande Berg, et al., 2012). However, another assessment tool to measure intercultural competence is the Intercultural Development Inventory (IDI) (DeJaeghere & Cao, 2009; Vande Berg, et al, 2012; Hammer, 2007; Hammer & Bennett, 1998). The IDI is the most provocative of immersive assessment tools in its ease of adoption and overwhelming success rates at measuring intercultural competence with over 60 published articles and 42 PhD dissertations (Hammer, 2012). In the 50-question survey, various stages are identified that lead to the intercultural awareness educators are looking for. These stages are denial, defense, reversal, minimization, acceptance, adaptation, and integration. While provocative, this instructional method is still relatively new and expensive to implement into programs. Each instructional tool surrounds encouragement for the student to disengage from the home culture and find immersive meaning in the host culture.

Regardless of the coursework taught, there is a strong emphasis on measurement of the program's stated goals. Alignment of said goals and policies

should, therefore, follow an approval process based on good practice as mandated by the state education board or other governing body in which the home institution resides. These requirements vary from region to region.

While the alignment process may vary, there are two broad categories that prioritize the objectives around studying abroad. The first category is focused on skills-based training. Students travel out of their home countries in order to receive the best education in a field. They go to locations solely because these locations have the best training in these fields. The largest field of study for study abroad worldwide concerns being Business and Management (Institute of International Education, 2019). This is skills-based training. The most common reasoning for studying these pursuits abroad is to return home and implement these skills at home. “Chinese students have rated future employment prospects as one of their top reasons to study overseas ... there is a strong belief that overseas education will enhance job prospects and career development. In recent years, we have seen a trend towards students working in the studying country for some time before heading back to their home country” (Cheng, 2018). Students are going abroad to take courses in these subjects because they cannot get the same education nearby. While these are noble pursuits, there are different types of study abroad for a reason.

The second category is focused on immersion in culturally significant locations. Students attend these study abroad programs to engage with the unique cultural landscape. In this second category, students could receive an education about this cultural landscape from home but receive a wealth of more knowledge through

immersing themselves in the landscape itself. For example, students can learn about the Mona Lisa from a textbook and understand what most art historians have to say about it, but it is more culturally significant to walk into the Louvre and see it for themselves. For these study abroad experiences, there is no other location that can compare than the culturally significant spot. It is at the discretion of the program coordinator to choose to combine these two categories in their program goals or choose to prioritize one category over another depending on the coursework taught. This relies heavily on student demographic and needs.

Between the four levels of degree completion (associate's, bachelor's, master's, and doctorate), the largest group studying abroad (87.7%) are students seeking a bachelor's degree (Institute of International Education, 2019). The first and second most popular courses to take while abroad surround STEM with 25.8% of total enrollment and Business with 20.7%. (Institute of International Education, 2019). These disciplines fall into the first category of study abroad programs: the skills-based training. Students are learning business, engineering and technology in a classroom environment that could be anywhere, but the leading programs happen to be abroad. This project addresses the second category of study abroad--one that is concerned with immersion in culturally significant locations. This happens to correspond with the third most popular course offerings for study abroad worldwide: social studies and humanities (17%) (Institute of International Education, 2019).

Management and Coordination

The general itinerary of most short-term programs can be standardized with space for amendments depending upon teaching style and course type; however, the first process is recruitment. This process will take at least a year prior to the program taking place. Common duties of the program coordinator include the following:

Program development, curriculum design and academic planning, logistical planning including registration and bursar, legal, budget and fiscal procedures, marketing and recruitment, student application and admissions process, preparing students including information on financial aid and scholarships, health and safety (insurance, risk and crisis management), overseas and re-entry support. (University System of Georgia, 2020)

Many of these duties for the coordinator take years to establish. Setting up a network of contacts is a process of trial and error with many problems bound to appear throughout several portions of the planning process. It is for this reason that plans should be underway at least a year in advance to the start of the program for faculty and students.

For the recruited faculty, this will usually include running the course syllabi through an approval process with the college or high school. “Educational objectives remain central to program design and management” and “regular evaluations are conducted” as evidenced in the syllabus “to assess student learning and development” (Standards Development Organization). Along with syllabi, the program coordinator or, at times, the faculty may be in charge of submitting a budget proposal and

requisitions for travel to the administration, and gaining other various approvals based on the legal requirements set forth by the school.

The next stage is advertising the program. This will take place after approval has been achieved from the previous step. This phase of the program is by far the most underestimated stage in the entire process and will take up most of the year with constant effort. Along with designing flyers that advertise the cost, credit, and attractions, the faculty must constantly persuade students to sign up for the program. One of the top selling points is the location of the trip. While the location can be anywhere in the world, studies show that European countries make up 54.4% of all study abroad participation worldwide with the highest numbers appearing in England, France, and Italy (Institute of International Education, 2019). Because of this, it is easier to advertise a trip in some of the most recognizable European countries: London, Paris, and Rome. Tactics for this include repetitive discussions during lecture in the faculty classes for Fall and Spring semesters as well as impromptu conversations in hallways, during enrollment or office hours. Stopping into other teacher's classes and delivering a quick presentation is also applicable in order to spread the word as widely as possible. Having a study abroad presence at most school functions would be advised as well (Standards Development Organization). Most of the time establishing a presence for students is to dispel the stereotype that study abroad is for the super-rich or the trip itself is unsafe, both of which tend to be the topmost pervasive rumors surrounding study abroad experiences ("Don't Let These," 2018; "Shifting Perceptions," 2014).

The application process for student admittance into a study abroad program can vary widely. Syracuse University, deemed by BestColleges.com as the best study abroad program in the nation, has over 100 programs in 60 countries of varying lengths and locations. Syracuse University's programs have a sophisticated application program with numerous requirements including minimum GPAs, required major declarations, etc. (Writers, 2018). For some short-term programs that use general education courses, an open-enrollment policy might be more suitable.

For institution-led programs that do not employ a third-party company, deposits tend to be larger to ensure student commitment to the program. For instance, Syracuse University's European short-term study abroad programs require at least \$575 non-refundable deposit ("Europe," 2019). Much of the reservations for the program are completed in good faith that students will not withdraw from the program. Seeing as the majority of programs are run through the funds raised by the students, if enough students backed out of a study abroad trip prior to departure, the college would be held responsible for making up the remaining balance to the foreign institutions. Third-party companies can absorb these financial burdens in ways that some American colleges may not be able to. Subsequent payments can be billed in installments or lump sums depending on the program's capabilities.

When students are ready to sign up for the trip, a sizeable and non-refundable deposit is collected along with some student contact and demographic information. The deposit must be large enough to prevent students from backing out at the last minute. The deposit acts as a promise between the student and the school that they

will be attending the program and based on this promise, the program can make arrangements with the host school to secure a room, tour guides, and other miscellaneous costs prior to embarking on the trip. If a student chooses to drop out of the program at the last minute, the school may be responsible for the costs incurred.

Once recruitment reaches acceptable participation (acceptable participation is defined as a budgetary point where the college begins to accrue financial gain), students will be notified of a “pre-departure meeting” where faculty members will introduce the trip, get the students to sign insurance forms, provide informational packets, and student passports can be copied for the school’s records. These meetings are the first requirement in the course for attendance and assessment and can answer most questions that new travelers might have about customs, border crossings, and navigation to the host school in the country once students arrive. Students can be given the syllabi at this meeting, reading assignments, and preliminary homework to be done prior to departure. After the meeting, all that is left is for students to meet the faculty at the host college at a specific time and place and the agreed upon itinerary will commence for the remainder of the trip.

Study Abroad Learning Theories

There is already a strong body of work focused on the effectiveness of studying abroad on student identity formation and cultural awareness. Much of the academic conversation revolves around three theories of learning that work well in foreign environments: Experiential Learning Theory, Transformative Learning

Theory and Immersive Learning Theory. These theories inform the instructional models used by educators while on excursions abroad and as such help build the foundations of the instruction that students must master. It is no surprise, therefore, that these theories provide the building blocks for most study abroad learning objectives.

Experiential Learning Theory

Study abroad programs have a great impact on student experiential learning which can translate to transformative identity reflection (Strange & Gibson, 2017). When a person is introduced to an entirely new cultural environment from which they have very little basis for reference or familiarity, they can either cognitively reconcile their identity in relation to the unfamiliar culture or distinguish their identity as entirely different. This creates a process of cultural coding in which the mind classifies characteristics of the new culture and the familiar culture which is transformative identity reflection is made possible by experiential learning. Given the process of students re-evaluating their social and cultural coding while abroad, the language acquisition and word choice involved in pragmatics—How language is used and in what context are specific vocabulary used—is more easily practiced in a foreign landscape (Freed, 1995; Shively, 2010). Foreign language learning and conversation courses benefit greatly from the study abroad experience. Through pragmatics, another term for foreign language learning, students develop intercultural communication skills which will keep them competitive in a highly globalized world

(Barron, 2003; Williams, 2005, 2009). For instance, students can develop conversational awareness of some foreign word usage that a textbook would be unable to trace; learning certain slang terms or usages while in the native country could help students choose the right words while in professional dealings at their place of employment. Furthermore, the utilization of gaps in knowledge spurred on by the study abroad experience can inspire curiosity and encourage further investigation that leads to learning and student autonomy over their learning environment (Freire, 2000; Houghton, 2014).

It is crucial to understand current and traditional conventions for study abroad so that new innovations do not circumvent positive teaching methods that have worked in the past, or if the new innovations do circumvent old practices, the benefits outweigh the drawbacks of implementing unfamiliar practices. Also, understanding the role of technology in study abroad can pave ways for new teaching methods that might retain academic rigor while students are abroad (Mikal & Grace, 2012). From an instructional standpoint, most student learning abroad is measured by experiences where students naturally grow their educational horizons. Concepts like “transformative,” “intercultural” and “experiential” litter the professional publications on the topic of study abroad learning. Bennett (2012) stated that the history of study abroad education, throughout its century of existence, can be categorized into three phases of pedagogical outlooks: positivism, relativism, and experiential/constructivism (p. 90).

These outlooks correspond to a timeline of philosophical thought around the

role of study abroad for a degree. As standardized American programs began to flourish after the first was created in 1923 at the University of Delaware, there began a flourishing of other similar programs, all with different teachers, learning outcomes, and learning theories to reach those outcomes. The positivist theory is no doubt the oldest learning theory to be implemented, due to its development in tandem with the creation of American study abroad programs and its tenets emphasizing natural phenomena as the root of truth. It is hotly debated as to what roots the current experiential/constructivist attitude has been derived, with many theorists concluding that characteristics came from both precursors (Bennett, 2012).

Positivism. Formally created by Auguste Comte in the 19th and revised by Emile Durkheim in the 20th century, the positivist approach strives to bring students to controlled experiences in the outside world that are derived from the expectations of the teacher (Hinchey, 2010). Through this approach, students acquire knowledge through the objective world and through physical and sensory stimuli. For example, a student might develop their understanding of French society through the culturally significant events or materials. A baguette is an excellent point of pride to many in French culture. There is a correct way this flaky bread should taste and look in order for it to truly be considered a “French” bread. If students were to take part in eating a truly “French” baguette, a positivist would agree those students derived a bit of meaning about “Frenchness” from this sensory stimulus.

A strong element of positivism is focused on geography. There are certain

locations for study abroad that are considered superior due to their socio-cultural and geographical features which are more conducive to student learning; this belief, over time, turned into a cultural elitism which dictated that students will develop preferred social skills by sheer proximity to the chosen cultural locations--usually Western Europe (Helyer, 2018). This concept is a remnant from traditional conventions known as the Grand Tour in which young, aristocratic boys traveled around Western Europe prior to taking on the reigns of adult responsibility back home. The positivist approach continues to play a role in the common image of study abroad as most promotional material and programs continue to center around Western Europe as a cultural hotspot and a top seller.

Relativism. On the other hand, the relativist approach is that all cultural locations are equal. This approach asserts that, while unique, all cultures have the underlying trait of humanity, and if students can immerse themselves within a given culture long enough, they will be able to identify and appreciate that commonality. Students are expected to take advantage of the learning opportunities and only have themselves to blame if they feel like they have not learned anything (Bennett, 2012; Vande Berg, Paige, & Hemming Lou, 2012). It is essential for students to take on their own authority in learning and work out any cognitive dissonance created by new experiences or interactions with foreign cultures. If a student were walking the streets of Rome and happened upon a Carnivale parade, they would need to understand that this is a religious holiday very similar to the American Mardi Gras and while the

costumes and language may differ, both are essentially the same celebration. This same scenario could be painted outside of religious custom: seeing a child playing with a dog or people coming together to share in each other's company during mealtimes. No matter the geographical location, the relativist emphasizes what could be viewed as universal truths beyond geographic location or culture. However, the student must make these observations to gain the most knowledge from the experience.

Constructivism. Finally, and most contemporary of the three approaches is the constructivist or experiential approach which is strongly influenced by the work of David A. Kolb (2001) and his work with experiential learning theory. Kolb and Fry's (1975) work on constructivism has acted as a strong foundation upon which to build study abroad activities (Cohen, et al., 2005). There are four major components to Kolb's experiential learning theory: "having a concrete experience, observing and reflecting, forming abstract concepts, and testing concepts in new situations" (Wong, 2015, p. 130).

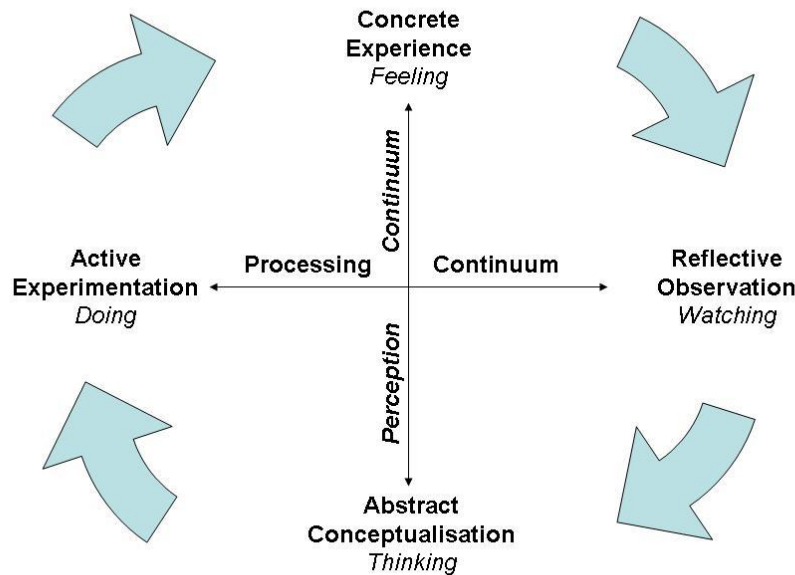


Figure 1. Kolb's Experiential Learning Theory Process. Reprinted with permission from Clark (2004).

The process of experiential learning theory as presented by Kolb's learning theory is contingent upon the student's curiosity and immediate need for a more compelling solution to a problem (See Fig. 2). As an example, the process of observation and reflection would be triggered simply by providing a student a baguette while in France. The student would observe the qualities of the flaky bread that make it definitively a baguette. They rationalize their assertions based off reflective data they have previously constructed from memories of bread they have had in their life back home. Next, they develop possible ways in which this bread was mixed or baked to develop the definitive qualities which correspond to forming

abstract concepts, and a student might then attempt to recreate a baguette themselves based on the abstract concepts and previous observations. Trying a baguette is just one of an infinite amount of experiential learning opportunities that could be constructed while studying in a foreign country.

The constructivist or experientialist approach rests upon the co-created meaning fashioned by the subjective experiences the students take on together in a study abroad. Meaning is not taken from absolute truths of the world, but rather the subjective reality a student and his or her peers create based on an infinitesimal amount of past experiences and what these students can bring to events they encounter. Through this, the expectation is for the student to synthesize their experiences abroad with their own past experiences and adapt their behavior and understanding to different cultural contexts. It is up to the educator to fully ground the students in these events, to draw attention or accentuate the experiences through a lens of educational objectives. While students may still not be able to learn, it is not entirely a student's fault, but rather an educator may need to amend the program to increase the likelihood of a favored outcome (Hammer, 2012; Passarelli & Kolb, 2012; Vande Berg, Paige, & Hemming Lou, 2012).

Many programs have caught on to the use of service learning on trips abroad as the excursions organically lend themselves to the kinetic style which service-learning demands (Amerson & Livingston, 2014; Perry, 2011). However, the most utilized instructional designs have constructivist qualities and are usually grouped under discovery learning, or the type of learning in which students decide on how to

solve problems based on their previous experience and current knowledge base (Engle & Engle, 2003). The experiential, transformative, and immersive learning models are most pervasive for generalized study abroad coursework and therefore should be the focus of this literature review as it concerns instructional models used today.

The basis for much study abroad instructional design revolves around the experiential learning. The fact that students are taken outside of their classroom environment can have a strong impact on their perceptions of the topics in which they are meant to synthesize (Berwick & Whalley, 2000; Strange & Gibson, 2017). However, while study abroad is conducive to experiential learning, there are still many programs that do not take advantage of this quality and rather treat learning abroad as a natural transfer of credit hours (Aguilar & Gingrich, 2002). Experiential education, first formulated by John Dewey, stressed that experiences are not educational by themselves, but rather through the strong cultivation of educationally rich experiences supported through reflection, analysis, and synthesis (Itin, 1999). Much of experiential education is directly rooted in the constructivist approach to learning considering the emphasis on cooperative learning (Aguilar & Gingrich, 2002). One of the assumptions made by experiential education and by extension study abroad is that the students are open to a change in their perceptions of the world and themselves, that they would respond positively to environments where their core values might be questioned or upturned entirely (Dewey, 1997; Freir, 2000; Gochenour & Janeway, 1993; Wallace, 1993).

One of the most popular assessment tools to trace experiential learning is through reflection exercises, usually through guided response, journaling, or guided surveys (Pagano & Roselle, 2009). For example, if students were to witness a cultural event-- a play or concert, perhaps--the assessment material around this concert could be to write a reflective essay summarizing what the student witnessed from beginning to end, commenting on traits of the event that were similar or different to what they were familiar with back home, and finally to explain how this event made them feel. This would be a guided response meant to structure the line of reasoning to reach mastery of learning objectives for the event. Students could be additionally tasked with keeping a daily journal with specific entry guidelines in the same fashion of the guided response. A guided survey could ask specifically leading questions meant to tap into the reflective mode of writing so students can develop a vocabulary for their own learning.

Transformative Learning Theory

The Transformative Learning Theory was coined by Mezirow (1991) and stresses that, through uncomfortable and non-traditional environments, students are better able to grow their perspectives on the world and their place within it (Mezirow 1991; 1997; 2003). Whereas experiential learning is focused on the acquisition of knowledge through carefully framed experiences and teacher interventions during those experiences, the transformative learning focuses on the aftereffects of what these experiences have done to the individual. The seminal theory on student frame of

reference and the subsequent notion of cultural pluralism or dual frames of reference allow for further investigation into the impact of study abroad opportunities on student awareness (Bell, Gibson, Tarrant, Perry, & Stoner, 2014; Berwick & Whalley, 2000; Kiely, 2004).

Mezirow's Transformative Learning Theory says that as students are placed in unfamiliar surroundings or situation, the brain must work to reconcile and as such, a reframing process occurs in which preconceived notions are revised or entirely abandoned (Christie, 2015). This organically fits with the cognitive processes that usually occur during travel. Students are tasked with participating in a disorienting and different landscape and must negotiate between their familiar culture/frame of reference and the foreign culture. The process, when presented correctly, should force the traveler to consolidate the dual frame of reference into one manageable reality (See Fig. 1). This can result in complete isolation of the traveler from the foreign frames of reference (a student locking themselves away and refusing to participate in exploration of the foreign cultural or geographical landscape) or can develop a dual frame of reference in which both cultures are equally viable to the student (cultural plurality) and they navigate their society in operation of both identities. Another option is the traveler adopting portions of the foreign and stitching these into their familiar frame of reference as a hybrid, but singular culture, rather than dual identities. In this case, the transformation becomes far more significant (Bell, et al., 2014; Berwick & Whalley, 2000; Kiely, 2004).

This is key to many of the developmental learning objectives identified in most general studies courses and goes hand-in-hand with the appreciation and comprehension needed for mastery of historical, social, and cultural competency in assessment data (Brown, 2009; Kiely, 2005; Perry, 2011; Taylor, 1998). To conflate the transformative instructional design with the experiential previously discussed has shown success in learning outcomes on study abroad excursions (Strange & Gibson, 2017).

Typical assessment types for experiential learning include self-evaluative work, interviews, narratives and journals, art-based techniques, and metaphor analysis (Romano, 2018). In a post-Mezirow world, that is to say a world of education with Mezirow as a building block to other developments, quantitative assessments now include the Learning Activities Survey (LAS), the Transformative Learning Survey (TLS), and the Valid Assessment of Learning in Undergraduate Education rubric (VALUE) (King, 1998; 2009; Romano, 2018). These assessments are tools used to try to quantify the level of transformative change within a student during a trip with multiple perspectives rather than from either student or teacher alone.

Learning outcomes of the study abroad trip can be broken down to four major areas of transformation in student perceptions: sociocultural awareness, connections to the natural world, economic considerations and change making (Bell, et al., 2014). These outcomes rely upon the person-centered model built by Carl Rogers (Rogers, 1969). For Rogers, the learning is guided by student agency rather than the teacher's own mental map. It is up to the teacher to follow the student's mental map and

supplement and assist them along their transformative path. “Within this learning experience the instructor takes on the role of facilitator of both the learning and the learning environment” (Miller, 2007). Developing a study abroad program, one in which the environment, itinerary, and activities are carefully chosen, matches the process set forth by Rogers to reach a transformation in the student’s sociocultural awareness.

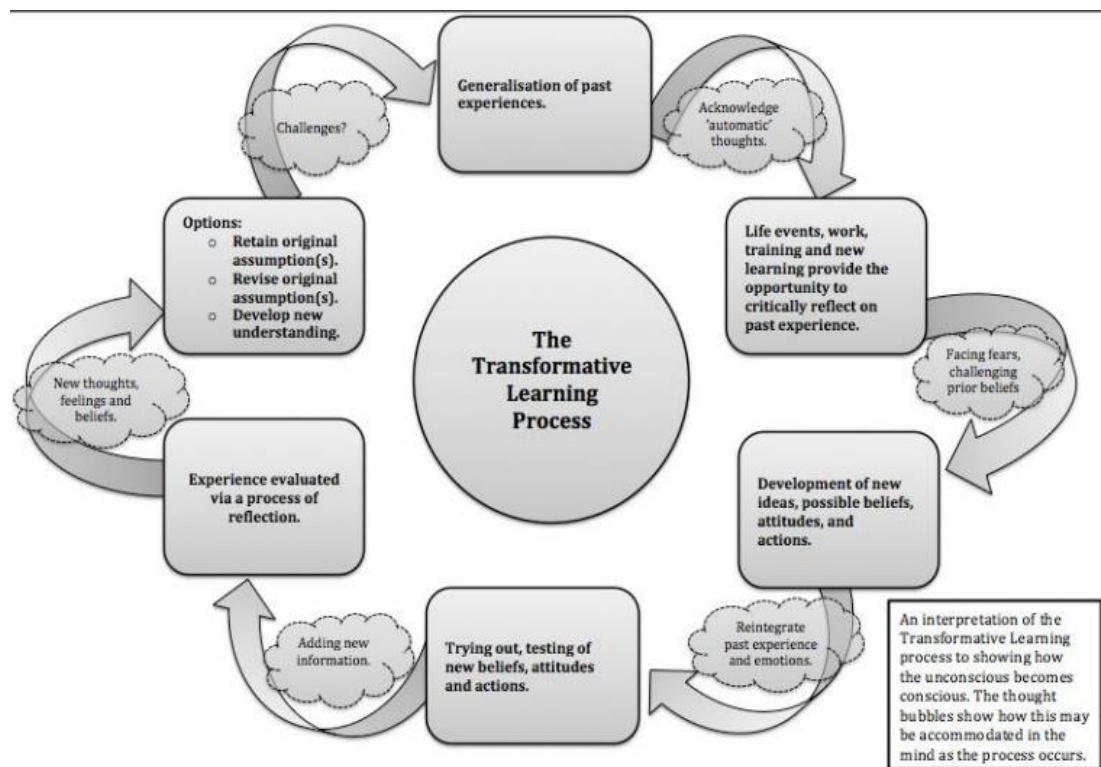


Figure 2. The Transformational Learning Process. (Reprinted with permission from Sharpe, 2015 a).

Beyond outward perceptions of the world around them, students have also identified changes in their confidence levels and self-efficacy from the beginning of

the trip to the end (Cubillos & Ilvento, 2012). This is in accordance with Maslow's hierarchy of needs. For Maslow, to affect a behavioral change in a person, the basest needs, such as physiology, safety, and belonging, must be satisfied (Maslow, 1943). Their environment and physiological needs are met first by the host country accommodations which provide sleep, food, and water. Safety is addressed by the environment of the familiar: students recognize they are staying on a college campus which is like their home institution. After a few days of communication with the other students on the study abroad trip, their place in the group begins to solidify and their sense of belonging is established. This leaves space for students to navigate higher order growth such as self-efficacy and actualization. It is only a step further for students to then develop a sense of social responsibility and strong sense of personal agency that enables them to make informed and responsible decisions (McClelland, 2015).

Immersive Learning Theory

A third and newly burgeoning instructional model, Immersive learning, centers around the enveloping qualities of study abroad trips. A good mixture of elements involved in a study abroad program can influence how immersive an experience is for a student. These elements can include the trip duration, how active teachers are in the process with students, accommodations both in housing and in learning capacities, level of orientative support prior to and during an excursion, and the academic rigor (Wilkinson, 1998). These factors, or the precise ratio of these

factors, can exert upon a student a level of comfort and willingness to acclimate to the host country (De Ley, 1975). If a program director for a study abroad trip can design an environment conducive to immersion while still assuring safety, then the student stands to learn at a more extreme amount than sheer proximity to experiences abroad (Kline, 1993; Pellegrino, 1997; Siegal, 1995). However, the unpredictability of student demographic background serves as an independent variable for most case studies; therefore, it is difficult to measure immersive results due to the wide range of experiences with which students arrive in the program and the varying dependability of the controlled factors (Brecht, Davidson, & Ginsburg, 1993).

Through immersive instructional design, students can develop intercultural competence (Corder & U-Mackey, 2018). According to Hammer (2012), in order to gain an intercultural mindset, students must follow stages of denial, polarization, minimization, acceptance, and finally adaptation in order to achieve complete intercultural competence. Their denial begins with a separation of what is not their cultural identity (“We don’t do that back at home”) which segues into polarization (“This culture is completely different than mine”) before resulting in minimization (“Well, the culture is not that different because we all want the same things”). After minimization, the learner develops non-judgmental acceptance (“People are people”) which can lead them to adapt their ideologies to a world where these other cultures exist simultaneously with his or her own. It only makes sense that students develop an understanding of cultures outside of their own through immersion with said culture. Students can develop their own autonomy and agency in the learning process through

the gain of immersive experiences (Deans, 2012; Freire, 2000; Lee, 2011). It is here where most overlap between simulation and study abroad objectives occur. While immersed in the culture, students can develop a confidence in social interaction and decision-making which can take the form of performing ethnographic interviews or blogging (Amerson & Livingston, 2014; Deans, 2012; Lee, 2012). There is a strong connection between intercultural competence and future job employability (Busch, 2009).

No matter the instructional theory chosen, study abroad can benefit a participant's sense of self-efficacy and encourage a more proactive sense of social responsibility than traditional classroom teaching (Cubillos & Ilvento, 2013; Engle, 1986; McClelland, 2015). Both outcomes seamlessly translate to learning objectives found in the majority of freshman or sophomore level study abroad courses in most colleges. While benefiting student identity, these courses more effectively teach to the individual course learning outcomes than in traditional classroom settings. The more effective a course is at student achievement of learning outcomes, the more efficient the course and its role in the college curriculum (Mistretta, 2008). Likewise, if a method like study abroad can align the on-time graduation rates of its students, it becomes more vital to the college and society overall. Having more graduates entering the workforce on time can benefit overall society through lower welfare needs, prison or medical costs, and less crime, which furthers investment in higher education (McMahon, 2009). Ultimately, study abroad benefits a university's major

goals which are to create more on-time graduates that are competitively recruited to the workforce (Hamir, 2011).

Game-Based Learning

Humans have been at play since time immemorial, so it is futile to pinpoint its discovery, or the strategies developed therein. In its educational uses, game-based learning was designed as an approach to learning material in a more inviting and familiar way, to use the skillsets of play developed in humanity prior to the institutionalization of learning. As more technology began to filter into the classroom by students and faculty alike, so too came digital games and their visual and auditory stimuli. The skillsets of play are drawn out in students by teachers in an educational environment of the teacher's choosing to meet certain educational goals in the student. Its intent is to strike a balance between the subject, retention of the message, and reproduction or improvisation of this information. The major structure of game-based learning consists of repetition, failure, and goal completion. Students slowly acquire skill, knowledge, and direction through repetition and failure; then they use this wisdom to perform functions more efficiently based on set educational standards.

Game-based learning is not to be confused with gamification which is a term used to describe the production and application of individual game elements to a situation or setting that is not considered to be a game ("What is GBL?," 2013). To create game-like elements and institute them into a non-game activity is gamification, an example of which would be to provide prize badges for students for never being

absent or always turning in assignments on time. The initial activity is not a game, but the elements provided work like game ornamentation so as to coax learners into better reception of the learning materials. Game-based learning, however, occurs when the activity itself is a game to which an educator can provide supplemental instruction in the classroom. Examples of this include full-fledged games such as *Number Crunchers* and the subsequent mathematics test over the principles gone over in the game. Creating a game that employs instructional tools such as the one within this project is not gamification because the initial activity is a game and the tool is the efficiency with which the player was able to perform the function of the game.

Another distinction must be made between games and play to which many theorists have devoted much time and effort. “The play of a game only occurs as players experience the rules of the game in motion” (Salen & Zimmerman, 2004, p. 302). Play, therefore, is the performance of the learner/player in conjunction with or in violation of the rules set forth by the game. “In the play-mode the deep fascination lies in the oscillation between play and non-play, whereas game-mode presses forward one's tactical capabilities to sustain the balance between a structured and an un-structured space” (Walther, 2003). Games can be a subset of play or play can consist as a component of games. While in the game world, the instinct is to test strategy, or play, without the consequences associated normally in a realistic scenario should it one day present itself. The player can assess the success or failure of an impulse without the dire consequences that could present in life so as to retrain the mind toward more successful possibilities (Gee, 2003). The study of the impact of

games on learning has divided into two main fields of study: the cognitive perspective (Blumberg, 2011; Fletcher & Tobias, 2005; Mayer, 2005; Shute, Ventura, & Ke, 2014; Spence & Feng, 2009) and the sociocultural perspective (De Freitas, Rebolledo-Mendez, Liarokapis, Magoulas, & Poulouvassilis, 2010; Shaffer, 2006; Squire, 2008, 2011; Steinkuehler, Squire, & Barab, 2012). “Depending on which perspective is taken, games are considered either environments that are motivating but likely to require excess amounts of information to be processed by the learner (cognitive perspective) or, conversely, approaches that provide the rich contextual information and interactions needed for learning in the 21st century (sociocultural perspective)” (Plass, Homer, & Kinzer, 2015, p. 259). For the purposes of this project, it is necessary to address both cognitive and sociocultural perspectives.

Cognitively, games do a lot for meaning construction and system recognition. On an auditory and visual level, the medium in which educators present stimuli to a learner is encoded with numerous cultural and political meanings, or semiotics. Semiotics dictates a relationship between game and play conditional upon the player’s perceptions. James Paul Gee (2003) presented an example on semiotics in reference to basketball:

“The guard dribbled down the court, held up two fingers, and passed to the open man” --is a sentence from the semiotic domain of basketball. It might seem off to call basketball a semiotic domain. However, in basketball, particular words, actions, objects, and images take on distinctive meanings. In basketball, “dribble” does not mean drool; a pick (an action where an

offensive player positions him or herself so as to block a defensive player guarding one of his or her teammates) means that some defensive player must quickly switch to guard the now-unguarded offensive player...If you don't know these meanings--cannot read the signs--then you can't "read" (understand) basketball. (p. 18)

In the same fashion as basketball coaches, educators must engineer their game-based learning environments around the linguistic and symbolic significances impacting students based on a given semiotic domain of video games which can include genre, architecture, and other game-centric literacy. In terms of game use in the classroom, Gee identified as many as 36 learning principles impacted by semiotic domains including many that specifically concern identity, motivation, and evaluation or application. Many of these principles align perfectly with the operative learning principles of study abroad that were discussed in the previous section (transformative, immersive, experiential learning, etc.).

In the same way cognitive functions of games can work with the principles of study abroad, so too do the systems behind the games help develop structure for students taken out of the classroom. Salen and Zimmerman (2004) identify four elements of a gaming system operating simultaneously throughout the player's experience with the game: Objects, Attributes, Internal Relationships, Environment. Objects are the variables in the system which can be manipulated by the player. Attributes are conditions or options available for manipulation in the objects or environment. Internal Relationships are what kind of interconnectedness the objects

have among other objects or the environment. The Environment is the context around the system in general or the plane in which the game is played. Each of these elements have layers of meaning dependent upon the framing taken by the player or designer: strategic, experiential, or cultural. Players must quickly understand the relationships of these elements in order to properly participate in the game just as travelers must quickly understand the elements of travel and living abroad in order to properly participate within a host country.

Identity

Building on the cognitive development in games comes the sociocultural development. The broadest categorical principle that lies within each other principle surrounds player identity. Video games allow for players to assume identities that can be ancillary or entirely independent to their identities in the real world. As players learn the deep-rooted semiotic domain of a certain genre of video games, such as first-person shooters, they can develop skills needed to succeed in these particular games as compared to a genre like turn-based role-playing games. Players can develop this identity to extend beyond one game to inform their decisions in future games in the genre (“I was really good at being a sniper in *Call of Duty*, so I should play a character in *Borderlands* who has perks for long-range weapons”). This example benefits their identity as a player (independent of reality), but informs and fine-tunes their identity in ancillary, but real situations (“I’ve learned attention to detail and precision through sharpshooting which hones my fine motor skills as a

surgeon”). Gee describes the benefits of learning about a new semiotic domain through non-passive methods such as video games: “Three things, then, are involved in active learning: experiencing the world in new ways, forming new affiliations, and preparation for future learning (2003, p.23). Each of these areas directly contribute to player reflection on his or her identity. This meditation is perpetuated by a continual progression of identity formation both in the real world and in the digital.

Motivation

A significant learning principle is called the “Psychosocial Moratorium” principle which corresponds to both identity as well as motivation. Gee attributes the structure of the psychosocial moratorium principle on psychologist Erik Erikson (1998) who noted the need for a space for people to explore their thoughts beyond the real-world implications of them. In this principle, students are able to investigate separate realities through the game process which allows players to take risks they would not normally because of the lack of real-world consequences for their in-game actions. This has implications for a learner’s ability to solidify the consistent qualities of his or her identity without any threat or consequence. The appeal of acting upon a consequence-free environment also contributes to overall player/learner motivations and drive to excel.

The extension of a player’s identity beyond the consequences of reality represents the Committed Learning Principle. This principle enhances motivation through immersion in the experience of play in the game. The identity constructed

within the game itself becomes a compelling force to cause the player to return to the game and better cultivate this new extension of identity. This principle represents the marriage of the psychosocial moratorium with the identity navigation into a new form of motivation based on introspective exploration without consequence. The more the player introspectively learns about him or herself in this digital world, the more they are rewarded with self-knowledge (Self-Knowledge Principle), furthering motivation to learn more. The player can receive far more information or knowledge than he or she is required to provide to the game, another motivation bred out of laws of conservation (Amplification of Input Principle). If self-knowledge and greater input over output were not rewards enough to encourage motivation, the achievement of succeeding in game challenges based on the player's level of skill and personal knowledge (Achievement Principle) is a higher reward for participation in the game (Gee, 2003, pp.222-223).

Evaluation and Application

While motivation drives the players toward further consumption of information, both implicit and explicit, they are evaluating the relevance of this information to their personal lives and developing theories on the best implementation of this information. The most pertinent evaluative information for this project addresses the concept of cultural plurality. The culture presented in the game world is juxtaposed to their own cultural models “without denigration of their identities, abilities, or social affiliations” (Gee, 2003, p.176-177). This juxtaposition

is a crucial step in the players modeling of their cultural identity. They see the game cultural model and recognize the similar and different characteristics of both. There might be aspects of these two identities at complete odds with each other, yet somehow in existence at the same time. This evaluation can even extend to semiotic domains beyond one particular model. Inevitably, the player can evaluate and understand the existence of multiple cultural models, domains, and identities. The player must then decide which characteristics of the models, domains, and identities can be of use or beneficial to their personal identities (Meta-Level Thinking). Evaluating the usefulness of the game world's information and applying this information to reality or other game circumstances is the mark of higher order thinking that games implicitly encourage. Furthermore, this level of evaluation and application is a necessary component to most learning objectives for Humanities and Social Science coursework: the very coursework for which this project is intended to be used.

Other Learning Discoveries

Other theorists have attempted to dissect the emotional investment gamers feel into different categories that could reveal a player/student's incentive to learn based on these motivations (Szczuka, Biles, Plass, & Krāmer, 2013). Järvinen (2009) categorized the emotional investment felt through the experience of gaming: prospect-based, fortunes-of-others, attribution, attraction, and well-being emotions. Because of the complexity of emotions cited by Järvinen, it can be said that games

entice players not only through challenge or competition, but also through narrative investment. This is crucial to the building of a serious game for study abroad because it elicits a response from the player/student concerning narrative psychology and human behavior. This can potentially affect a transformative experience in tune with the immersion of the game and the foreign country in which the player/student finds him or herself.

The play involved with games is important to development and learning. Games have the ability to superimpose two or more depictions of reality and even pose contradictory or incompatible representations. This skill underpins various critical thinking skills necessary for learning that coincide with a theory of mind (Astington, Harris, & Olsen, 1990) that develops the intellectual skill of pretense and can help learners discover subtext, context, and appearance versus reality. These skills complement the sociocultural perspectives by promoting plurality and analysis. In terms of video games, the structure is set on behaviorist theories of intermittent reinforcement schedule, a concept that randomizes the pace of rewards and accomplishments just enough to evade prediction (Loftus & Loftus, 1983). Video games tend to structure themselves around a desirable ratio of challenge and reward in such a way as to coax the player through adverse or difficult hurdles to be interesting enough to pursue yet easy enough to keep the player from quitting. The motivation this produces in players is one that appears in the classroom when students attempt to learn a new skill, yet traditional classrooms may lack the engagement from

the learner that players of video games have. The play that is developed in between game events leads to positive cognitive and sociocultural learning.

Player engagement feeds into the sociocultural perspective. “Game characters engage the learner emotionally, and social features such as collaborative play support sociocultural engagement. The goal of all these types of engagement, however, is to foster cognitive engagement of the learner with the learning mechanic” (Plass, Homer, & Kinzer, 2015, p. 260). Much theory has been developed that describes the dynamic of cognition and emotion during learning (Izard, 2009). Video games maximize this dynamic through architecture, auditory and visual stimuli such as music and recognizable images, and narrative (Szczuka, Biles, Plass, & Krāmer, 2011). Evidence suggests that emotional investment can lead to positive learning experiences, and the use of key emotional elements within the design of a game is called emotional design (Plass & Kaplan, 2015). Positive experience within a game have been found to enhance cognition (Fredrickson & Branigan, 2005; Isen, 2002) while promoting learning outcome retention (Plass, Heidig, Hayward, Homer, & Um, 2014; Um, Plass, Hayward, & Homer, 2012). Outside of appealing to the pleasure centers of the brain, confusion has been found to strengthen learning (Craig, et al., 2004; D’Mello & Graesser, 2014; Graesser, D’Mello, & Strain, 2014). Even the shapes and colors of images used in the architecture of the game have been found to have a positive impact on player emotions and learning (Plass, et al., 2014; Szczuka, Biles, Plass, & Krāmer, 2013).

Use and Evaluation of Serious Games

In serious game design, meaning games that inevitably promote a particular outcome such as learning or skill development, elements of the game can help and hinder the process of reaching the final outcome. Such elements include the flow of the game (Csikszentmihalyi, 1990; Gee & Shaffer, 2010), behaviors (Kaptelinin & Nardi, 2006; Leontiev, 1978; Norman, 1988), and icons (Sharritt, 2010). Considering the significance of these elements, evaluation tools must directly refer to these areas of game design so as to ascertain the best practices for producing a serious educational game. The more immersive the experience of a serious game, the better receptive the player is to the learning outcomes (Van Eck, 2010).

Ever since the computer made its way into schools in the early 1980's, there has been gamification of education materials through tools like *Frogger*, *Where in the World is Carmen Sandiego?*, and *Number Cruncher*. With these games came an opportunity to spread cultural awareness. One of the most profoundly effective games was *The Oregon Trail*, a simulation of the life and challenges put upon settlers passing through America during Western Expansion. This game ran the odds of individual events affecting a user's travel party including accidents while fording rivers, running out of supplies, developing dysentery, and being killed by wildlife. The game combined text and simulation of pioneer life, the flow of the game positive worked to meet educational goals and illustrate the near impossible odds of reaching the end of a pioneer's struggles, most of which were outside of user control to affect change.

Because technology use in classrooms has grown, new games and simulations are reaching students and influencing student learning. Along with audio technology being transplanted from museums into classrooms, digital simulations are making their way into classroom learning environments as the technology to create such digital simulations become more easily accessible (Siciliano, Jenks, Dana, & Talbert, 2011). These simulations span multiple curricula and can draw out more resounding human responses to ethical dilemmas than without the simulation at all (Butteris, Gladding, Eppich, Hagen, & Pitt, 2014; Schumann & Anderson, 2006). For instance, in order to raise sociolinguistic awareness and expose subconscious gendered language in conversation, Deutschmann, Steinvall, Lagerström (2011) developed an experiment with PhD students in which their voices were altered on the receiving end while playing a simulation game called *Second Life*. This perceived “gender change” affected how they were treated in the online simulation which developed an ethical dilemma in the student. These ethical dilemmas improve cultural awareness in students by constructing cultural apparatus through which they can view the world (Fischer, 2013).

The newest trend in education is coupling the games from the previous era into full-scale virtual reality experiences filled with the illusion of learner autonomy (Gros, 2007). Illusion is stressed because true autonomy would transcend any coding that an individual game could possess, yet if the virtual reality can be adapted to meet specific user needs and if there is some semblance of game adaptation, learner engagement and by extension learning increases (Fischer, 2013; Kurilovas, 2016;

Paliokas, 2016). This has extended to a learning model for those students unable to attend a study abroad excursion but would embrace the opportunity to receive a simulated experience online (Howard, Perrotte, Lee, & Frisone, 2017; Kotluk & Kocakaya, 2016). Not only does learning about a simulation increase technology literacy, but it expands cultural awareness and asks students to assess their personal role within a given cultural community (Shih, Jheng, & Tseng, 2015). Visual representations of cultural artifacts can be integrated into the coding of the simulation so that even avatars, or figures in the simulation meant to represent the user, can become educational. Using virtual reality sets the stage to anticipate the next technological expectations of students, going beyond simple social media to full scale immersion (Corrozzino, 2010). As digital simulation games continue to expand their reach, learner immersion resembles the immersive learning encountered with study abroad.

The design of these immersive experiences must consider the initial creation of individual characters within the virtual reality world, from playable to non-playable characters. These characters must have a public space in which to interact with the student player, a believable script of interactive events must be written and each character must have a decided spectrum of capabilities from talking all the way to moving or fighting (Reiners, et al., 2018). All the characters must believably express themselves and make decisions depending on the stimulus provided by the player, must have an informing function that pushes the story of the simulation along, and must have a set subject objective to convey to the player (Vosinakis, 2017).

Given all of the attention surrounding characters prior to gameplay, it is no surprise that immersion can create a wealth of knowledge for the student and revisiting previous discoveries of simulations solidify acquired knowledge (Yiannoutsou, 2014). Additionally, that wealth of knowledge from the design space mimics the knowledge acquisition that is created in realistic space during study abroad. As simulation asks participants to step outside of their home environment, so too do study abroad excursions.

Even if the simulation were not game-centric, students can develop a sense of technological literacy by navigating through and translating menus or screens of a simulation. Museum personnel have followed suit and begun developing their own games to correspond to individual cultural exhibits (Corrozzino, 2010). Currently, the technology used in both classrooms and museums are the most closely related because their objectives are in near seamless alignment. Museums and classrooms show the positive use of simulation games to encourage cultural awareness in participants, which reinforces simulation game usage in non-traditional classroom environments to attempt student intercultural competency (Grant, Huang, & Pasfield-Neofitou, 2018; Gregory & Wood, 2018). This further legitimizes the use of simulation games in a non-traditional classroom such as study abroad.

Game-Based Learning Architecture Theory

Games and play are learning opportunities, so it is only natural that the study of such a phenomenon would be used to develop instructional tools for the current

educational climate. “Meaningful play occurs when the relationships between actions and outcomes in a game are both discernable and integrated into the larger context of the game. Creating meaningful play is the goal of successful game design” (Salen & Zimmerman, 2004, p. 34). For game-based learning to work, educators must engineer gameplay to meet the goals of the educational coursework in meaningful ways. An offshoot of game theory concerns engineering games into technology and then using that technology for educational purposes. The engineering behind the environments upon which educators build their students’ game experiences must consider current theory about learning in the modern technological age. Current understanding of digital games, play, and game-based learning stems from a “postmodern understanding of reality and its implications for education” (Chee, 2016; Doll, 1993; Trueit, 2012). This means that most elements of the game design develop meaning through the individual lens of the player in reaction to any objective rendering of reality. Like study abroad, experience of the game, while common among all players, can have vastly different interpretations. Therefore, the design of the game should be open to different perspectives while still conveying some concrete information.

The majority of the literature stresses game development as an iterative design process, that is to say one that repeats the phases of building, testing and revision based on the problems as they are presented through playthrough (Rieber, Barbour, Thomas, & Rauscher, 2009; Salen & Zimmerman, 2004). The major phases of iterative design consist of prototyping, playtesting, evaluation, and refinement (Salen & Zimmerman, 2004). Regardless of the process, iterative design stresses playtesting

and prototyping. Salen and Zimmerman discuss the importance of fluid design on meeting the end goals of the game:

It is not possible to fully anticipate play in advance. It is never possible to completely predict the experience of a game. Is the game accomplishing its design goals? Do the players understand what they are supposed to be doing? Are they having *fun*? Do they want to play again? These questions can never be answered by writing a design document or crafting a set of game rules and materials. (Salen & Zimmerman, 2004, p.12)

This admission of the impossible prediction supports the postmodern reality in which game designers find themselves. Most game designers are placed in the position of building a portrayal of reality, so what they have to consider in their portrayal reflects postmodern thinking (signs, signifiers, semiotic domains, etc.) The meta-level cognition required in game design relies on a postmodern understanding of reality. Therefore, it is through trial and experimentation that a designer can answer most of the questions Salen and Zimmerman posed above. The game's goals, entertainment and educational value is uncertain until long after the game has finished and still may not be successful to every player who attempts it. What can help is trial and error and learning from past successes.

Constructing a role-playing style game only adds to the complexity of interpretation; however, theory and past success shows promise in the design. The RPG format works with Reigeluth's Elaboration Theory (1999) in which the learner decides what areas of learning and how much depth in the material the learner wishes

to pursue. This theory was devised in conjunction with a paradigm shift from teacher-centered to learner-centered educational design. The hallmark of RPGs is the illusion of choice and personal autonomy over the actions performed in the game. A player's choice to navigate to a town mimics the learning choice to elaborate upon a specific concept (what's inside the town? Are there things I need to do in there or people I need to talk to?). By allowing the player a modicum of control over their learning experience, the designer can encourage a more positive experience in the player which can lead to positive interpretation of the game or educational content.

Coupling an RPG with historical relevance also presents theoretical issues. The current climate around social and cultural theory assumes that history and the spaces inhabiting certain historically relevant moments constructs social meaning. It creates literary legacies which emphasize the kinds of meaning production found in culture (Foucault, 1986; Lefebvre, 1991). This concept is also reflected in cognitive theory which stresses that knowledge and the acquisition of knowledge are situated in activities that are inseparable from social, cultural, and physical contexts (Bakhtin & Holquist, 1981; Fairclough, 1989; Gee, 2005; Kirshner & Whitson, 1997). Because knowledge becomes difficult to separate from history and sociology, historical gameplay can be paradoxical; it is difficult to parse out what is historical from what is anachronistic knowledge placed by the designer, so attempts to fully simulate can only be partially successful from a theoretical standpoint (Wansink, 2018). Therefore, the reliance on the educator to provide an ethical portrait of historical relevance is a

major assumption. However, coupled with this trust comes the knowledge of immediacy in gameplay.

While distance of time and cultural appropriation has altered the psychology of the players and designers, an attempt can be made to shorten that distance in the game through rules of play. This is called “cultural-historical situatedness” (Neville & Shelton, 2010, p. 608). The formalized interaction that takes place when the player chooses to follow the rules of the game design creates an acceptance that encourages the suspension of disbelief and further engages the player; hence, the immediacy of the game as a concept promotes a benefit of the doubt in the player toward the designer. “The acceptance of game rules as being valid underscores the game’s sense of transparent immediacy” which is meant to create the illusion through visual representation of the game in order to get the viewer to forget the medium and simply consider the message (Neville & Shelton, 2010, p.608). This situatedness is coupled with the focused interaction discussed by Salen & Zimmerman (2004) and “provides students with a deceptive sense of cultural-historical transcendence by allowing them to use their own contemporary behavioral assumptions and attitudes in the game” (Neville & Shelton, 2010, p. 610). This transparent immediacy makes it crucial for the historical blueprint to be built in a pattern of introduction, application, and idea reinforcement.

Narrative in Game Design

There has already been a strong theoretical discussion of narrative in game design. Much of the theory surrounding the building of a narrative for a learning-game design is fragmented or borrowed from other disciplines. While there are a multitude of game spaces, the one most concerning this project surrounds narrative game space. “Formed by rules and experienced through play, a game is a space of possible action that players activate, manipulate, explore, and transform” (Salen & Zimmerman, 2004, p. 378). Narrative underpins the objectives of many games and can enhance player motivation or immersion. A game may have very little narrative, but most games incorporate narrative in some way.

James Paul Gee (2003) borrows from linguistic theory to facilitate meaning around game-based learning principles and the postmodern theorists Roland Barthes, Ferdinand de Saussure, and Jean Baudrillard are employed to make sense of symbols and the tricky distinction between reality and simulation. Even still, there is an ongoing theoretical argument as to whether or not game narrative is the same thing as literary narrative, the ludologists believing in a strong difference and the narratologists believing in no such difference. Espen Aarseth (1997) strongly denies that games are the same narrative structure and as such, all theories borrowed from literary criticism fall short from the definitions that game design demands. He deems this new narrative gameplay as cybertext and coins the term Ergodic Literature which includes collaborative internet texts, computer-generated texts, and computer games.

While a game can be entirely free of any narrative thread is a highly contentious topic, arriving at one answer or another does not contribute to game design.

Nevertheless, Äyrämö (2011) categorized four main approaches to narrative in game design which can be helpful in development: story event-based approach, structuralism-inflected approach, game scenario-based approach, and cognitive psychology-based approach. The story event-based approach to game design relies on conventional storytelling premise that narrative is comprised of a series of events. “The approach emphasizes characteristics, which are typical in the context of media forms preceding the appearance of digital media. Thus, the approach leans on traditional narrative theories, which focus especially on the story content” (Äyrämö, 2011, p. 2). The story event-based approach relies on previous literary narrative traditions and incorporates the narrative models used therein. Possible design models historically include the Aristotelian three-act model (Kickmeier-Rust, et al., 2010), the Freytag pyramid model (Lee, Mott, & Lester, 2010), and Campbell’s Hero’s Journey model (1949). The Freytag pyramid model appears in most forms of literary criticism and boils a story down into the basic moving parts necessary to drive the narrative forward. It is usually illustrated as an uneven pyramid, more resembling a heartbeat on a heart rate monitor. The most pertinent elements that contribute to student investment and comprehension correspond to the traditional plot tree elements in fiction. Based on the story event-based approach already developed, the primary sections of the story that the designer must build are exposition, rising action, climax, falling action, and resolution.

The other categories are more experimental with the player's role and game structure. In a game-scenario based approach, the narrative is constructed by the individual player rather than being informed by the game architecture. The designer can set up the objects and environment, but the potential for a game narrative thread is constructed entirely by the player's communion with that environment and with other players. Narrative is developed by the contributions of multiple players and events arriving in an indeterminate order. With the structuralism-inflected approach, the player derives narrative meaning from the "multimodal discourse of a computer game and to the player's role with or in a game narrative" (Äyrämö, 2011, p. 4). The player's experience of the game design and participation in the story as a user takes precedence. Cognitive psychology-based approaches to games, the explanation of narrative comes from within the gamer's psychological perspectives, allowing life events, traumas, and non-verbal communication felt by the player to suggest the narrative structure of the game. The game design, therefore, is abstract and highly interpretive. These approaches tackle more of the postmodern view of reality and filter these interpretations into the game design itself as compared to the story events-based approach.

While there might be many approaches to how information is inserted into the game, the bare essentials of narrative space in game design can be identified. Based on the supposition that narrative belongs in gaming, Salen and Zimmerman (2004) rely upon J. Hillis Miller's outline of what a narrative is. According to Salen and Zimmerman, this model contains the following elements:

- Situation: A narrative has an initial state, a change in that state, and insight brought about by that change. This process constitutes the events of a narrative.
- Character: A narrative is not merely a series of events, but a personification of events through a medium such as language. Miller doesn't mean character in the usual sense of fictional persona, but rather the process by which "character is created out of signs." This component references narratives as not just events that take place in the world, but as represented events, events that occur via systems of representation.
- Form: Representation is constituted by patterning and repetition. This is true on every level of a narrative, whether it is the material form of the story or its conceptual themes (2004, Ch. 26, p. 4).

There is a clear reliance upon a system of narrative for these bare essentials to engage the game and player. The pre-created narrative interactively told is an “emergent experience” occurring in time with the game being played by a player (Salen & Zimmerman, p. 383). Emergent narrative coupled with Äyrämö’s story event-based approach most relate to the game structure of this project because the controlled choices the player makes seemingly alter the outcome of the game. There is an illusion of choice and space for the player to make decisions leading to more than one outcome, but the outcomes have already been pre-determined by the designer (Lambert, 2010).

What Is Next?

To this point, there has not been any work bridging the gap between educational game technology and study abroad experiences. Educational game technology can possibly benefit individuals by pulling them outside of their home environment, but the question as to the benefits of simulation while on a study abroad excursion remains to be seen. Educational technology methods and modes are growing at lightning speed and educators struggle to continue making their material seem relevant to digital natives, whose lives and reputations are almost exclusively digital (Dey, Burn, & Gerdes, 2009; Dunkels, Franberg, & Hallgren, 2010).

Additionally, study abroad programs provide invaluable lessons on global citizenry and personal autonomy (Kitsantas, 2004; Palmer, 2015). A major factor of student retention can lie in the transformative power of empathy, which is a strong learning objective in most study abroad courses. Despite cautionary tales of wireless devices in the classroom deterring learning immersion the concept of incorporating simulation into study abroad is provocative to say the least (Zhu, 2010). Students are first deprived of their home culture when visiting other cultures; however, they find familiarity with the internet and social media communities. Next, students can be deprived of their physical space through a virtual reality game. The more students are able to step outside of their home community, digital or physical, the more likely they are able to acquire the basic life lessons: life is precious, new experiences and learning in general are healthy, and there is more than one successful way to live life (Gibson, Rimmington, & Landwehr-Brown, 2007).

Such lessons are cornerstones to the collegiate ethos, the foundations upon which the world stands and lessons that seem to be the hardest to teach in times where it is of the most monumental importance. Seeing the positive impacts surrounding simulation education leads to a possible hypothesis: perhaps technology can come full circle and assist the educators once again, make learning readily enjoyable for both parties, and leave a lasting impression on individuals matched by the cultural markers that map a study abroad excursion. Through simulation and online content, education can reach the less advantaged (Titarenko & Little, 2017). It can incite motivation to keep learning and encourage students to seek out more knowledge to become effective lifelong learners. Synthesizing technological simulation with study abroad might assist in the development of these learners in new and important ways.

Chapter 3: Procedures

Reasoning for Capstone

The purpose of this project was to build the blueprint of a digital simulation role-playing game that can be tailored to multiple study abroad programs based in the Humanities and Social Sciences. This blueprint will be a step-by-step walkthrough for educators and non-educators alike to implement the basic framework of the simulation into their course. It will provide suggestions and examples of integration and will leave some freedom for the study abroad educators to customize the content based on the location chosen for an excursion. This will all be built in hopes that study abroad educators may adopt this instructional tool for their study abroad curriculum. Once adopted, the students will access the simulation during the trips, and it will work in conjunction with classroom lectures and walking tours to provide a space to solidify cultural competence. Through the blueprint, the pervasive components of the instructional design for this type of instructional tool can be established and a new activity can be formalized.

For students to access the simulation, an instructor must build it. Building an entire game could be a Herculean task for educators who have already built a study abroad program, recruited students, and raised funds for the excursions. The process of adding a simulation to their course could seem daunting without a step-by-step walkthrough that speaks to the educator and advises how to technically build the simulation to match their coursework. This walkthrough will consist of multiple

steps, all aimed at developing a quality product that can be repurposed to a myriad of courses and historical material. There are four stages from which the blueprint will be developed and eventually implemented by educators: Needs Assessment/Analysis, Historical Timelining, Fictional Narrative writing, Architecture building, and Critique/Playtesting. These stages should be performed chronologically so that the former stages should inform the latter stages.

To address what might seem like a daunting amount of work for an educator to adopt, possible relief might lie in outsourcing work to traditional students. An agent working toward the end goal of the game could build a body of information first from traditional classroom activities. Students could be tasked to help construct individual pieces from the historical, fictional, and architectural stages as a portion of their work toward a final grade in a traditional classroom. These students could receive service learning and internship credit for their work. Bringing students into the project can provide a student perspective or approach to the material while improving the rate at which information is put into the end product game which should unburden the load of the educator in building a final concept.

Based on research found in the literature review, there are characteristics of study abroad programs, some successful and others detrimental to learning. While it is not intended to rehash these characteristics here, some discussion must be had on how this project can naturally fit into a study abroad course with consideration to these characteristics. This project is essentially endeavoring to build new course instructional material for study abroad programs that is both accessible and engaging

for the hyper-mobile student base enrolled therein. The instructional material, in the form of a digital game, attempts to reach students on technological level and promote higher academic learning and retention of more difficult sociocultural concepts which either fail to be represented in the previous instructional material or fail to be shown by study abroad students during the excursion.

In terms of course type, a general education course in the humanities and social sciences could benefit using this project. Students can participate in the study abroad program while taking courses that meet general education requirements for most majors at a college or university. This demographic allows for all types of student to enroll in the courses and receive credit, which sets apart the general education study abroad program from other specialized or major-specific study abroad programs. The product that this blueprint eventually creates will be accessed by entry-level students with very little specialized knowledge, so this game is assistive to the travel and college-level educational standards expected of them. The same could be said for students participating at the high school level; their interests and backgrounds will be varied and therefore, the material constructed should be designed for the average user. However, this kind of project would not be recommended for students lower than high school or college level due to the skill-level requirements. Students should have a relatively workable knowledge surrounding technology and learning management systems. They should be trusted to make decisions on their own and be able to manage their time wisely. It isn't until

high school that students begin driving and thus paying more attention to navigational cues; as such, this skill is necessary for navigating foreign countries.

To reach this demographic and meet underlying study abroad goals like intercultural competency, courses in general education social science and humanities would be best suited for this project as they are more focused on the appreciation of sociocultural events. Discussion of history, anthropology, art, music, literature, theater and politics all complement a study abroad program by sheer immediacy of the information being presented to the students. Upon arrival in a host country, students are immediately subjected to different languages, foods, and customs all of which filter back into a basic understanding of social science and the humanities. Students should be able to have a basic knowledge in written communication from their time in high school or college and should be able to communicate using this knowledge while abroad either through handwritten or digital means. Students would be entering the program with little to no understanding of the host culture with the understanding that the teachers on the trip will provide that information on the trip.

The number of American students participating in these programs decreases as the amount of dedicated time needed increases, so therefore it is best to implement this project into a program that best serves the most students. The time range most likely attract the most American students would be around two weeks. This is long enough to immerse students in a new, culturally rich environment with enough instructional material to make a difference, but short enough to be affordable and more convenient with working students. Furthermore, from an observational

standpoint, students will be less inclined to participate in a month-long program due to responsibilities at home and going shorter than two weeks does not leave enough time for students to digest the material being presented to them in a meaningful way. Seeing as 65% of students studying abroad are doing it in summer, or in less than eight weeks during the regular school year, the best option for time period is still in the summer months between June and July (Institute of International Education, 2019).

Overwhelmingly, what study abroad programs tend to do well concern immersion, on-time learning, critical thinking, and problem solving. Students are observed gaining more understanding of concepts they can see in person rather than trying to glean meaning from a two-dimensional textbook in a generic classroom setting. The study abroad experience is lauded for its ability to break with traditional teaching paradigms of lecture, call and repeat, rote memorization, and intense reading. Rather, students are gaining much of the same material through audio and visual stimuli while walking within a three-dimensional world (Siciliano, Jenks, Dana, & Talbert, 2011).

Adapting a simulation game to this scenario can provide supplemental support for these study abroad benefits. Discussion of the results of simulation games can provide a structure for in-class discussion that both breaks with traditional lecture/call and repeat models while being familiar and adaptable to the student (Grant, Huang, & Pasfield-Neofitou, 2018). Rote memorization might be assisted with a simulation that provides location specific primary source work while remaining unobtrusive.

Providing a simulation game that hinges upon student comprehension of primary source material can assist with student reading without returning to book structure.

Based on observational analysis and the current academic conversation, students are experiencing certain drawbacks to the study abroad program. These issues include loss of focus, lack of academic rigor and structure, and time management (Bok, 2006; Engle, 1986; Hoffa, 2007; Vande Berg, 2003, 2009). Students who lose focus tend to do so because they are outside of the traditional classroom environment (Gardner, Gross, & Stieglitz, 2008; Woolf, Battenberg, & Pagano, 2009). As such, the traditional signifiers of learning such as textbooks, routine, and familiar academic assessments (exams, essays, etc.) are absent. The technology that they have at their disposal while abroad, such as cell phones, is less diverse than the technology they use in academia like laptops. All of these create barriers to the learning process and must be channeled positively toward educational endeavors (Campbell, 2005; Godwin-Jones, 2016). This is one way in which a simulation game can help assist in the learning process. It provides a central technological keystone with which most learning can gravitate.

Another issue in study abroad includes textbook concerns. There are a wide range of general education textbooks that are used nationwide for the same courses, and many of them are expensive and heavy. Given the hypermobile nature of study abroad, it is easy to see how textbooks could get lost, stolen, or damaged irreparably during the program. Additionally, students would have to set aside time to sit down and review from the textbooks when a great amount of their days are spent walking

on tours or attending class. The national average for textbook cost per course is \$153 (Kristof, 2018). This becomes a further financial burden on the student who is already struggling to pay for the study abroad program which averages \$1,125 per week abroad (Fusco, 2017). In this sense, developing a technology activity that can function as both a textual reference and an activity could help ease the financial burden on the students already strapped with tuition woes. Working with the technological tools students tend to have, like tablets and smartphones, can not only cut costs and deter distraction, but it can also help to prevent loss, theft, and damage to a textbook, the loss of which could hinder student performance on tests.

Instructional Design Strategy

Considering the many factors affecting study abroad—The problems with student learning, the process involved in student mastery of learning objectives, and the conditions in which educators must create to make a program successful—building an instructional tool that addresses these concerns and gives space and freedom for educators to customize it to their individual program would benefit study abroad courses in the Social Sciences and Humanities. In most cases, due to the limited budgets of most study abroad programs, the educator and designer are one in the same, but should there be this differentiation, a series of conversations must be had concerning how to best mold the game into the particular course delivery style desired by the educator on the study abroad excursion. Timing, benchmarks, and game gatekeeping would all need to be considered and the educator must be made aware of what parts of the game are changeable and what cannot be manipulated to fit the course delivery. After these conversations, the designer can start planning their stages of game development.

Azmi (2016) states that to develop a historically-based game, designers must follow these steps which are bolstered by the theoretical framework of the literature review: determine objectives, prepare materials, design storyboard, design character and maps, program game, playtest and playthrough, and implement the game into the learning environment (p. 4). Considering that this blueprint will intend to assist educators to build their own RPG to which the details can vary widely, Azmi's three steps require more elaboration. To that end, this blueprint project will be divided into

five stages: Needs assessment, historical timeline, fictional narrative, digital architecture, and playtest/critique. These stages will be described more in-depth herein but can be viewed with the corresponding Appendix materials that show the full stages as a complete blueprint. What follows in Table 1 is a breakdown and explanation of each of these stages and what these stages would look like as a blueprint presented to the intended designer of the game.

Table 1

Blueprint Stages for Study Abroad Simulation Games

Stage	Description	Purpose	Outcome
1	Needs Analysis	Identify student gaps in learning outcomes	Ensure proper implementation of concepts in the simulation
2	Historical Data	The data to be received by students to master learning objectives	Reinforce areas of learning weakness, textual backbone
3	Narrative	Vehicle for historical data. Transfer implications of historical data onto fictional people.	Student investment, motivation, and a recognition of historical significance of events.

4	Architecture	Method of delivery of history and narrative. Structural rulebook for student interaction with the history and narrative	Historical and Narrative data implemented into a simulation apparatus. Student receipt of historical narrative
5	Critique	Quality Control. Playtest, playthrough, etc.	Revision to promote integrity of information received by students. Troubleshooting errors from all stages.

The first stage of building the blueprint includes building a needs analysis to ascertain student gaps in learning outcomes for Social Science and Humanities coursework in study abroad. Studying abroad provides a unique context for any coursework, but student needs are further complicated when considering different types of curriculum, institutions, and home cultures around which the students enroll. It will list out the process needed to properly perform a needs analysis in broad enough steps to be integrated in multiple study abroad environments and will explain

the analysis required to reach conclusions. Conclusions reached from the needs analysis include: the target population, the gaps in knowledge currently within the given student population, specific areas of interest for students about the host country, and preliminary impressions on the students about the host country. This will help with implementation of concepts into the simulation.

The second stage is implementing historical accuracy. This can be achieved by the educator/designer of the game through their own knowledge of the events and time period along with the knowledge from textbooks and primary sources. Seasoned study abroad educators will know what concepts they deliver in the lectures that can be reinforced in the simulation or that can be used to progress the student through the simulation more quickly. Primary source material like newspaper clippings, political cartoons, or other mixed media created during the time period in which the game occurs represent key artifacts which teachers will use in the architecture of the game to help students along. The feedback from the Needs Analysis performed in the first stage will help in knowing what should be emphasized or de-emphasized.

The third stage of the blueprint will be developing the fictional story to correspond with the teaching materials and study abroad excursions. The story will follow the traditional plot points of fiction writing, meaning it will have exposition, rising action, climax, falling action and resolution with a shell of events, turning points, and suggestions. Once educators adopt to build the game from the blueprint, the educators must fill in the specifics to their location. These plot points will help to position the story into the architecture of the simulation game later. Exposition will

include the hallmarks of storytelling: identifying characters, setting, point of view, and conflict. Much of this can be established through cursory knowledge of the study abroad excursion location. Additionally, the educator will need to narrow down a time period most significant to the country's cultural identity information from the historical accuracy stage will determine if the story could have possibly happened during the time period in question. The time period will help frame the story around significant historical events. From there, the conflict will become further complicated by events pertinent to the setting and characters, which will push the story forward into rising action. The majority of gameplay will occur in this plot point. The climax will be determined by the designer but must be one in which the main character is forever changed. Sometimes, this can appear as deaths of loved ones, loss of money or livelihood, or a sudden realization of betrayal. From there, the story progresses to falling action in which the events that unfolded in the climax will unravel to their eventual end. The resolution leaves the characters and events at such a state where it is understood where they will be after the story has finished being told. This fictional story will incorporate certain pivotal historical events that are unique to the study abroad location. The characters and conflicts will be directly informed by the history of the host country.

The fourth stage is establishing the architecture of the simulation which will consist of broad rules of play and game mechanics that will be uniform among all incarnations of the simulation blueprint. Examples of broad rules would include requiring students as avatar/characters to perform three functions successfully within

the simulation each day no matter the socioeconomic stress their character might be under. The end goal of all incarnations of the game remains the same: keep your character/avatar alive if not thriving. The skeleton of the game will be composed using a program called RPGmaker and the teachers can customize colors, character avatars, storyline, and other historical data to fit their program. What cannot be altered in the general story arc and the benchmarks of gameplay. These benchmarks appear as levels and correspond to lecture stopping points in the classroom or walking tours for the students.

When all previous stages are customized to an individual program, an educator is ready to allow testing and critique. This is usually performed by colleagues or peers who will test the game for stability and historical accuracy. Bugs, or technical errors, will be worked out to ensure that the product has no user errors before implementing it into a student program. The blueprint of the simulation will likewise need to be put to scrutiny in order to ensure all phases of the design process are accounted for and accessibility is maintained. The critique would be best conducted by the co-faculty on the study abroad excursion so as to help inform the decisions concerning the type of activities chosen for the trip. If a certain event is emphasized in the game, for instance, it would be beneficial that the tours students take would center around this time period. This final stage is intended to solidify the simulation and provide experience in playthrough so that when students may encounter a particularly difficult section, both teachers can provide support.

Chapter 4: Identified Strategies and Product

Needs Assessment and Analysis

Section One of Stage 1: Building Assessment

In order to prepare the best simulation game for the location and audience for which instruction is occurring, educators must figure out the gaps in knowledge the average college student might have in terms of intercultural competence for the specific location of the study abroad excursion. The entire survey is available in long form in the Appendix of this project; however, it is dissected into portions and provided in line with the narrative to best explain its content. For the purposes of identifying gaps upon entrance into a study abroad experience, a survey would be more effective as it is more accessible to an entry-level audience who may or may not have any interactions with cultures outside of their familiar one. As such the first portion of the survey focuses on collecting demographic data of the students involved in the study abroad program (see Table 2).

Table 2

Blueprint of Needs Analysis Survey – Demographic Data

Age	Birthday: Day, Month, Year
Place of Birth	City, State
Gender	Male, Female, Other, Prefer not to say

Countries visited in the Americas:	#,
If so, which ones?	
Countries visited overseas:	#,
If so, which ones?	
Have you ever traveled without your family?	Yes/No
Have your parents traveled out of the country?	Yes/No

The demographic data is necessary to get a baseline of student demographics for the particular study abroad program. Every study abroad population is unique. For instance, there are some students who have traveled since childhood and other student who have never left the country. Age, gender, and previous experience with travel both accompanied and unaccompanied by an adult would be included in the survey. These are important to understanding how they will perceive the eventual RPG and possibly how they will play it. After the demographic data, the survey would continue to assess the familiarity of a student with the host culture's socio-cultural identity (see Table 3).

Table 3

*Blueprint of Needs Analysis Survey –Cultural/Historical Familiarity –Fields Entered
with Example Information for Ireland Study Abroad.*

<u>How familiar are you</u> <u>with the following</u> <u>historical or cultural</u> <u>concepts about Irish</u> <u>culture?</u>	<u>4 = Very</u> <u>Familiar</u>	<u>3=</u> <u>Somewhat</u> <u>familiar</u>	<u>2=</u> <u>unsure</u>	<u>1=</u> <u>somewhat</u> <u>unfamiliar</u>	<u>0= not at</u> <u>all</u> <u>familiar/</u> <u>never</u> <u>heard</u>
Irish	4	3	2	1	0
Mythology/Folklore					
Irish Poetry	4	3	2	1	0
Irish Music/Singing	4	3	2	1	0
Irish Dancing	4	3	2	1	0
Irish Pub Culture	4	3	2	1	0
Irish Potato Famine	4	3	2	1	0
Easter 1916 Uprising	4	3	2	1	0
The Troubles	4	3	2	1	0

Current Irish Politics	4	3	2	1	0
Sinn Féin	4	3	2	1	0

Students are asked to assess their familiarity with certain historical and cultural events that are most relevant to the host country's socio-historical identity. Many of these events may be directly related to observational ways of life the students might encounter on their excursion. An example of a historical event for a study abroad in Ireland would include the Irish Potato Famine, The Troubles, and 1916 Uprising. Cultural events from Ireland would include Pub culture, football, busking, or Irish dancing. It is necessary to ask the students first of their familiarity so as to help students develop their answers for the next set of questions surrounding their interests (see Table 4).

Table 4

Blueprint of Needs Analysis survey –Learner Interest—Fields Entered with Example Information for Ireland Study Abroad.

<u>About which of these</u>	<u>4 = Very</u>	<u>3=</u>	<u>2=</u>	<u>1=</u>	<u>0= not at</u>
<u>events would you most</u>	<u>Interested</u>	<u>Somewhat</u>	<u>unsure</u>	<u>somewhat</u>	<u>all</u>
<u>be interested in</u>		<u>interested</u>		<u>disinterested</u>	<u>interested</u>
<u>learning?</u>					

Irish	4	3	2	1	0
Mythology/Folklore					
Irish Poetry					
Irish Music/Singing	4	3	2	1	0
Irish Dancing					
Irish Pub Culture	4	3	2	1	0
Irish Potato Famine					
Easter 1916 Uprising	4	3	2	1	0
The Troubles					
Current Irish Politics	4	3	2	1	0
Sinn Féin					
Irish	4	3	2	1	0
Mythology/Folklore					
Irish Poetry					
Irish Music/Singing	4	3	2	1	0
Irish Dancing					

Irish Pub Culture	4	3	2	1	0
-------------------	---	---	---	---	---

What are your
impressions of
Ireland's people and
history, if any?

Based on popular
portrayals in media and
in conversation, what
do you think **Ireland's**
people are like?

The content of the questions has been developed from several Intercultural Competency assessments that have worked for a myriad of researchers to ascertain specific gaps in student knowledge (DeJaeghere & Cao, 2009; Vande Berg, et al, 2012; Hammer, 2007; Hammer & Bennett, 1998). The educator can then analyze this data and use the results to inform, highlight, or emphasize certain sections of the

history and culture of a host country. Stage 1 makes it possible to efficiently perform the subsequent steps to build the simulation.

There are options on whether or not to administer the survey at the beginning of the pre-departure meeting or online via a Learning Management System provided by the school. Making the survey online might benefit in efficiency (less steps involved in distributing to students), yet it might affect the test in the amount of formality and distance the students feel. In other words, the results might be skewed, or data might be lost if not administered face to face. Students might feel pressure to respond positively or with more familiarity than they would if they were asked these questions outside of the presence of peers and educators. Placing the survey online can be helpful to keep students from feeling this pressure, but there is a possibility of students might fail to complete the survey. Some possible reasons for students to not complete the survey might be forgetfulness or a lower priority to them compared to other academic responsibilities. To combat this, a hybrid of online and in-person survey collection could be helpful. Those students who would normally have completed the survey online can be checked off the list while those who had not completed the survey prior to the pre-departure meeting can fill it out in person with a paper copy of the survey during said meeting. Students will have to be filling out information for insurance and marketing reasons anyway, so those who have not completed the survey online will not be singled out.

It is ideal to administer the survey around the time of the mandatory meeting, which occurs a few months in advance of the departure date for most short-term study

abroad programs. Around 1-2 months prior to the excursion would be the recommended time frame to administer the questions as it gives you most feedback from the final roster of students enrolled in the study abroad courses while still allowing enough time to perform the stages. This would provide enough time to compile, analyze, and process the data into the blueprint. The content of the survey will begin with demographic information and will continue to a series of Likert scale responses designed for students to self-identify their gaps in knowledge. It is not relevant for students to self-identify their names; however, if the educator were wishing to administer the survey as a small grade to encourage student participation, the space for the name to be written would be added in the demographic table. Open-ended responses can be added and tailored to the individual student demographic. This structure is designed to create a broad profile of the student base from which educators/designers may make design decisions in later stages of the development.

Consideration of the content of these questions were inspired by synthesizing multiple gap analysis or intercultural competency assessments. For the purposes of copyright, no questions herein were taken from other assessment instruments. Phrasing and motivations were changed to match the needs of this analysis which is to develop a profile of the overall student knowledge base and receptiveness toward other cultures for the particular location chosen for the study abroad. As such, the material will need to be altered by the educator/designer. While the fundamental survey structure remains uniform, the educator will enter host-country specific information into the survey in the places calling for the information (Cultural Event

A, Historical Event A, etc.) The individual historical or cultural events placed into the instrument are at the educator's discretion, but there should be enough of these from all periods of the host country's history to be able to comprehensively address the socio-historical identity of the host country.

For the qualitative, open-ended survey results, the designer should compile the words into a word-cloud which helps show emphasis on certain meaningful words. Excess words like articles and conjunctions can be excluded in favor of the more telling verbs, nouns, adverbs, and adjectives. This will provide the biggest impact for the designer in identifying student impressions of the host culture and provide context as to where they are receiving the majority of their introductory knowledge. A quick Google search reveals there are a number of free word-cloud generators on the internet that can be used to fulfill this purpose.

Section Two of Stage 1: Compiling/Coding

After the surveys are returned, the designer will need to spend time compiling the information into useful points to influence the designer's inevitable decision as to what point in history would best serve this population of student for the excursion abroad. The protocol for processing the quantitative portion of the survey is relatively simplified. Designers have the option of simply calculating the average and standard deviation of the Likert scale result numbers (see Table 5). There would need to be a calculation table to represent student familiarity which would be completely separate from the table representing student interest in the historical or cultural events.

Table 5

Compiling: Calculation of the Survey Results for Host Culture Event

Familiarity/Interest—Fields Entered with Example Information for Ireland Study Abroad.

<u>Student Familiarity/Interest</u>	<u>Average</u>	<u>Standard Deviation</u>
Irish Mythology/Folklore		
Irish Poetry		
Irish Music/Singing		
Irish Dancing		
Irish Pub Culture		
Irish Potato Famine		
Easter 1916 Uprising		
The Troubles		
Current Irish Politics		
Sinn Féin		

Irish Mythology/Folklore

Irish Poetry

Irish Music/Singing

Irish Dancing

Irish Pub Culture

The average for each question is necessary to assess familiarity of the student population with historical or cultural events implemented by the designer. The higher the average each question is to four (the highest point of the Likert scale) the higher the familiarity. The lower the average is from four, the lower the familiarity. The important data for the purposes of the game are on the low end. The lower the familiarity with these events, the more attention must be paid to these events in the game. They could go further and plot the numbers in Excel graphs should they be reporting their findings to administration or colleagues. The data provided by the average and deviation will report higher familiarity with the cultural or historical events of the host country as well as show how varied the responses are. The higher the deviation is, the less conclusive the average might be for overall student familiarity or unfamiliarity. A wide breadth of answers will lead to inconclusive data and the data will fail to not assist the designer in his or her final decision on content inclusion in the digital game. However inconclusive it is, the data can still provide

crucial points about the students' background knowledge of the host country and attitude toward travel and other cultures.

For the qualitative, open-ended survey results, the designer should compile the words into a word-cloud which helps show emphasis on certain meaningful words. Excess words like articles and conjunctions can be excluded in favor of the more telling verbs, nouns, adverbs, and adjectives. This will provide the biggest impact for the designer in identifying student impressions of the host culture and provide context as to where they are receiving the majority of their introductory knowledge. A quick Google search reveals there are a number of free word-cloud generators on the internet that can be used to fulfill this purpose. There are also a number of simple word counter programs which simply lists the amount of times a word is used in a survey. No matter what, designers will have to filter out common words that are not as indicative of knowledge of the country and more reflect knowledge of proper English grammar. Such words to filter out include articles, conjunctions, and pronouns. Principle words that are the most telling include nouns, verbs, adjectives, and adverbs. This is a crucial step in retrieving the proper material to inform the final decision on the setting of the game and what events to include.

Also, after viewing the scope of words used in the open-ended responses, the designer should develop a coding system that filters certain qualitative words into a particular category (see Table 6). The goal of the coding system is to get a baseline of information on what students know prior to the excursion about the host country and its people. Therefore, the designer will take the exact words and phrases used by the

students in the survey instrument and insert them into particular categories based on the contextual evidence in which the words and phrases were used by the students.

The system should code the most used principle words that pertain to the host culture and based on the context in which the words were used. For instance, student responses for an Ireland Study Abroad that use words like “leprechaun” could be filtered into a category of cultural events like “Mythology/Folklore” (see Table 6). Depending on the tone and context of the overall responses can be marked as a positive (+) or negative (-) understanding of the information. If it is unclear from the context of the student response, an equal sign (=) should be used to indicate this as passing familiarity with a possibility of ignorance.

Table 6

Coding: Example of Coded Open-Ended Survey Results for Ireland Study Abroad

<u>Mythology/Folklore</u>	<u>Irish Potato</u>	<u>Poetry/Music/Singing</u>	<u>Easter 1916</u>
<u>(Cultural Event A)</u>	<u>Famine</u>	<u>(Cultural Event B)</u>	<u>Uprising</u>
	<u>(Historical Event</u>		<u>(Historical</u>
	<u>A)</u>		<u>Event B)</u>
“Leprechaun” -	“Poverty” =	“Ed Sheeran” =	“Terrorism” -
“Fairies” +	“Immigration to	“Busking” -	“Neutrality in
	America” +		WWII”-

“Rainbows” +	“Came from	“happy people” =	“Nazis” -
	England”-		

Section Three of Stage 1: Conclusions

Once this information is completed, the designer should analyze the coded and compiled survey results. They will then answer questions that will lead him or her to the eventual conclusion on what historical time period is most suitable for this study abroad audience based on the student feedback. These questions (see Table 7) are designed to assist in the brainstorming and conclusion making process the designer must undergo to reach their inevitable final choice on game development for this stage. Once answered, the designer should evaluate their answers and make a final judgment as to the setting of the RPG. This final decision on time period will inform the next stage of the design process.

Table 7

Brainstorming Questions and Final Conclusions for Educator Based on Survey

Results

-
- What is the area of most knowledge? (+)
 - What is the area of least knowledge? (- or =)
-

-
- Where does the majority of knowledge about the country come from? Is this an accurate source for information about the country?
 - How will student learning unfold if these knowledge gaps are not intervened upon?
 - How would you prioritize the choices in events based on the student responses?
 - Based on your answers to the previous questions along with the results of the surveys, what is the time period in which your historical RPG should take place? why?
-

Historical Timeline

Building a historical role-playing game is not without its complications. This is the first stage in which data will be directly built for the game. The data within this stage is the factual historical and cultural events that took place in a given time period. These major historical or cultural events should be developed with the view that they are working toward an overarching message about the host country's history and culture. Therefore, the time period should be the umbrella under which each of the events in the game occur, with one event linking to next by cause and effect or circumstance. For instance, in the Irish Potato Famine historical timeline, a poor harvest will link to lower stock which will link to fewer food quantities for sale which

will lead to fewer resources for people to buy. All of this is under the umbrella of the Irish Potato Famine, yet each one could be an individual event addressed in the game. While there may be as many as the designer wishes, a good number of historical events to build around is three to four and the architecture of the game will repeat in various iterations in the game. Designers will rely on their previous education on the subject to develop a body of historical work with textual backing including primary and secondary resources. As the majority of primary historical documents are outside of copyright, it is not an issue to reproduce these materials later.

The historical events should be chronologically ordered and derived from primary and secondary sources that are authorities on the subject of the host culture. The designer/educator will have a strong working knowledge of this material or if he or she does not, will know how to gather material in order to remedy their own knowledge gaps. The number of events within the historical timeline are significant only to the time allotted for the simulation to occupy during the study abroad excursion. Context surrounding these events will be interwoven with the fictional narrative in Stage 3.

Each historical event must be tied to a major theme or gap in student knowledge through direct or non-direct relationships. The designer constructs context based on the areas of significant impact which will eventually be interwoven with the fictional narrative (see Table 8). For example, student responses might mention that the Irish Potato Famine was about not having any crops except potatoes (a common misconception) which led to a lot of people migrating to America. A natural area for

teachers to elucidate is the background behind the potato famine including economic philosophy (Laissez-Faire), the disease affecting potatoes, and the bias which existed against the Irish which related to the proliferation of potatoes as the sole cash crop for most of Ireland during this time. Students will not be able to identify most of the blind spots in their understanding, so it is up to the educator to make judgments on the best course of action and what areas of knowledge need to be dispelled or supported. For the purposes of a short-term activity such as this game, students should be able to pick up on around three themes with an indeterminate amount of historical events. The events tend to blend in with one another, so there should be enough historical events to solidify the particular chosen theme without seeming to be redundant.

Table 8

Example Ireland Historical Timeline Aligned with Student Knowledge Gaps

	Laissez-Faire Economic Philosophy (Theme/Gap #1)	Proliferation of the Potato Blight (Theme/Gap #2)	English/American Racism/Bias against Irish (Theme/Gap #3)
Crops Begin to Fail (Historical Event #1)	X	X	

Parliamentary		X	
Response			
(Historical Event			
#2)			
Prices Go Up for	X		X
Sustainable Goods			
(Historical Event			
#3)			
Mass Emigration	X		X
(Historical Event			
#4)			

Character avatars interact with the history (by player choice) and the interaction will further immerse the player into the complexities of the historical events from a firsthand standpoint. The historical problems, legacies, or challenges will be highlighted through the multiple areas of life that were affected which will reinforce these messages to the player who can spot the patterns.

For example, if the Irish Potato Famine were chosen by the designer to construct the game around, the major historical and cultural events might be the trend data for loss of crop yields, the parliamentary response, inflation, and mass emigration to America.

To document how each theme or gap in student knowledge is addressed in the choice of historical event, the designer will fill out a table that aligns the event to each theme or student knowledge gap. Not all historical events must align to every theme or gap, but there should be enough alignments to represent each theme or gap substantially in the historical timeline.

Each historical event prescribed for the game inclusion must ensure that the game “does not veil” the gaming world’s “otherness yet also fosters student engagement and reflectivity” (Neville & Shelton, 2010, p. 617). This coincides with the complicated othering done by historical timelines in academia. The designer must be sure to consider inclusion of familiar concepts for the player while incorporating all socio-cultural concepts of the time period in question. A fair and representative way of ensuring this is to compile the historical data most representative of student learning gaps along with the familiar to correspond with primary and secondary source work that are authorities on the topic (see Table 9).

Table 9

Broken Down Historical Data to Be Incorporated in the RPG

Historical Event:	Data	Primary/Secondary Sources Used
Who was involved?		
What happened?		

When did it happen?

Where did it happen?

Why did it happen the way it
did?

What is the contemporary
significance of this event?

Fictional Narrative

The fictional narrative should incorporate the historical data from a fictional character's perspective. Developing a storyline might seem like a daunting task, but if the designer remains relatively broad in the story progression, conflict, and theme/tasks, more specific events and text can be built later to merge the history with the architecture. This stage should codify what are essential elements of the story that contribute to the overall student investment in the characters' well-being and comprehension of the salient points of the time period on a micro-level.

Recalling the narrative section of the literature review, there are four approaches to game narrative building. The first and most appropriate for this type of serious game is the story event-based approach. This incorporates conventional storytelling structure predicated by Aristotle, Freytag, and Joseph Campbell. The Freytag pyramid synthesizes Aristotelian and Campbellian design in a more linear

path, which is helpful in simplistic game design. It follows the cycle of exposition, rising action, climax, falling action, and resolution (See Fig. 3). In this scenario, the story is more prominent than the game rules.

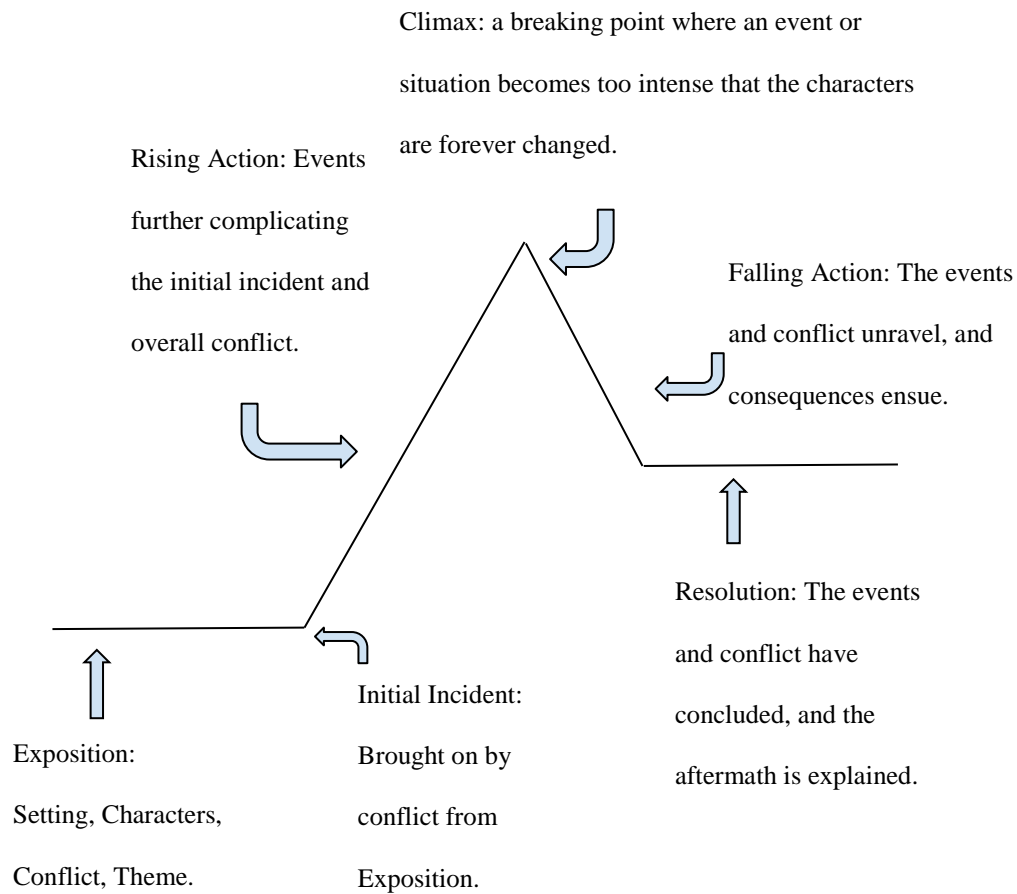


Figure 3. Freytag's Pyramid explained.

Exposition

The exposition of any story will include the most information because it establishes the setting, characters, conflict, and essential thematic message of the

story. More specific information should appear here so as to set forth a chain of events that are further complicated by the history and architecture stages of the game design. Characters should be fully explained in terms of age, race, class, education level, motivations, and ambitions. The setting location of the game will most likely be where the study abroad course will take place, in the city or surrounding areas, but at a different time period in the history of that country. Attention should be paid toward the environment of that time period as compared to its contemporary landscape. The specific time period chosen will come directly from the gaps in knowledge identified in the needs analysis from stage one. The time period should also consist of enough historical events whose legacy contributes to the sociocultural identity of the country.

In terms of the example of the Irish Potato Famine, it would be reasonable to have the story begin just before the height of the Famine and end either at the very hardest time or just after. The legacy of the Famine itself is what has made a mark on the cultural identity of the Irish people, so a reasonable amount of years would be between 1840-1852. Because the impact began on Irish agriculture, the location most appropriate for the game would be outside of the city of Dublin, in a nearby and agriculturally rich town. The western side of Ireland is much more agricultural, and the village of Killarney has a great amount of primary data that could help provide historically accurate numbers. This line of logic might resemble the kind of deduction necessary from the designer to ascertain the details of setting needed for the exposition of the story.

The playable characters chosen for the narrative of the game should have names, ages, and social classes befitting the average person in which these historical events most impacted and who might have a stronger agency to alter his or her environment. Based on Western European tradition, this would usually be a male of low to middle class social standing. This is not to say that the playable characters must be male. Depending on the region of study abroad, many of these countries come from a long historical legacy of patriarchy in which the female would need to use a male conduit with which to channel any of her actions (a father or husband). Should the game be in a post-women's movement West or be centered around a location rich in matriarchal tradition (Native America, Africa, etc.), the playable character as female would have enough agency in their lives to make the game choices realistic. Essentially, the game should have characters who will be directly impacted and would socially be able to affect a change in their conditions. Other supporting characters can be incorporated from the other classes or occupations to act as conduits of further complications in the storyline but should not be considered as a playable character. There are always exceptions to the rule: a game may focus on kingdom building and would present a series of choices to, perhaps, Queen Elizabeth I. Nevertheless, whatever choice the game designer makes on character, they must examine the impact of the time period on the character and on the eventual culture.

For the purpose of the Irish Potato Famine, the primary workers of agricultural land in Ireland at the time were low-class citizens, many of them inheriting the work and debts of their family. The majority were illiterate and poorly

educated, if at all. They were raised Catholic or Protestant, the Catholics being strongly persecuted by the Protestant English ruling over them. Connor and Shannon were widely used forenames during the time and most individuals in these agricultural villages would not live to see past 38 (Zarulli, Barthold-Jones, Oksuzyan, Lindahl-Jacobsen, & Vaupel, 2017). So, the main protagonist of this game will be Connor, aged 30, married to Shannon with two children, both too young to be independent. It would make sense that their major motivations in life would include seeing their children survive into adulthood and making enough profit to allow themselves a comfortable life. Given the time period and the conditions, this is the average motivations for the majority of the Irish farmers. These motivations will become a key motivation for the player who will have hopefully developed investment with the character and want to see their goals manifest. This is supported by conversation about emotional motivation and learning from the game-based learning section of the literature review. There are always exceptions to these rules in the history books; however, the research and primary source work is there to help fill in the details of the average experience. It is the average experience that is most essential because it informs the cultural identity of the study abroad location.

The characters' motivations will stand starkly against the initial conflict that sets the storyline into motion. "Because conflict presumes a struggle between opposing forces, in a game there should always be some element that works against player success, an element that acts to try and ensure the failure of the player. This role is often taken by a villain character, a competing player or team, or may be

embodied in the game system as a whole” (Salen & Zimmerman p. 387). According to literary convention, there are seven traditional types of conflict a storyline may have: man versus man, man versus self, and man versus other. Depending on the motivations explored in the character development, one or more of these conflicts will stand against the protagonist of the game and all of the conflict will occur when the character is somehow being denied acquisition of these motivations. For instance, if Connor’s major motivations are to see his family thrive and be happy, the major conflicts created by the historical time period of the Famine would be man versus nature and man versus society. This is because the natural world created the blight that affected the crops leading to famine and it was society or the ruling government of the time that prevented the farmers from solving this issue, planting other crops, or leaving the country.

The final detail of the exposition, the thematic message, will be somewhat informed by the character motivations. In fact, the thematic message and character motivations naturally should correspond with the learning objectives for the study abroad course. What are the particular legacies of this time period that continue to shape the identity of this culture? This message will persist throughout every section of the narrative through the character and the events, so it must remain true to the historical significance of the time period and its impact on the current era in the country which students find themselves. Given all of the following considerations, an example exposition for an RPG in Ireland would resemble the following:

Setting

Killarney, Ireland. 1840-1852

Characters

Connor* - The protagonist. Early 30's. Farmer who has taken over the plot of land once tended by his father and forefathers. Catholic with some literacy, but not efficient.

Shannon - Connor's wife. Early 30's. Homemaker and mother of two. One child is newborn son, named Angus, and the other is a two-year-old, daughter named Rachel. Catholic and illiterate.

Landowner - British nobleman who was given this land by the King to drive out the Irish. Protestant and mostly absent from the manor.

Various supporting characters - Newspaper editor, Banker, tax collector, Parliament members, and the gentleman of the manor (proxy between landowner and the workers).

Motivations

To make an honest livelihood for Shannon and the children that they may all do whatever they want with their lives, free of most societal restrictions and debt.

Theme/Tasks

Theme: The difficulty or discontinuity of farming and its impact on survival.

Primary Task: Keep a safe and comfortable home for Connor's family.

Secondary Task: Grow enough potato crop yield to satisfy the landowner with Connor's tenancy of the farmland.

Tertiary Task: Maintain ethical farming techniques that have been passed down for generations.

Tertiary Task: Keep enough of the crop yield to help sustain the family.

Tertiary Task: Put a little of the profit away to maintain expenses during troubled times.

Conflict

Man versus Society - Taxes, resources, and rent needed to maintain the family.

Man versus Nature - The potato blight, seasons, rainfall, fertilizer.

Rising Action.

With the conflict being established, its intersections into the lives of the average historical person can play out in the narrative. What are some scenarios in which the average person might come into contact with the conflict and how might this scenario worsen over time if it is not dealt with or fixed quickly? This can all be surrounding the concept of maintaining survival or success. Enough scenarios should be produced so as to avoid excessive repetition when these inevitable scenarios are loaded into the game architecture. The rising action tends to slowly increase the level of conflict inflicted upon the protagonist, leading to an inevitable breaking point. Therefore, these scenarios should reflect increased intensity either by the scenario

itself or layered on top of other scenarios occurring at the same time in the storyline. Supplemental historical records can be supplemented into the narrative to help build the intensity of narrative choices. Example scenarios both with and without the use of primary documents is illustrated below and relates the story of the Irish Potato Famine and Connor, the protagonist developed in the sample exposition.

Scenario One- Connor has lost more than 50% of his crop yield leading to an inability to make enough money to pay the landowner. He will have to make a choice:

- a) Tell the gentleman of the house the truth and hope he has mercy.
- b) Attempt to raise the funds by raising the cost of the yield at market.
- c) Cut rations from the family just until the debt is made up.

Results

Connor tells the gentleman of the house the truth and begs him to reason with him. Since this is the first offense and the family has been well credited for generations, he is willing to extend the time needed to make up the missing crop yield. He warns, however, that the yield must be double in the next harvest.

Connor raises the crop yields at market by a few increments hoping it will be barely noticeable. The people accuse him of trying to steal from the poor, honest people of Ireland, his neighbors. He was able to make up 25% of the deficit but is assured that many people refuse to do business with him again.

Connor cuts the rations for his family. While everyone was able to eat, the eldest continues to make complaints that she is still hungry every night.

Scenario Two - Connor's eldest has grown ill due to lack of healthy food. Crop yield 1/4 less than usual and Connor's monthly rations are already cut in half. Money is needed for rent, taxes, and food. Currently the household can maintain for seven more days, but you need to come up with the money to pay the doctor, supplement the rations, and pay the taxes.

- a. Make the woman work! Bring Shannon with you to the field and attempt to harvest double the amount of potatoes to make up for the gap.
- b. Eat underdeveloped potatoes and grain to make up the difference in nourishment.
- c. Go to a British owned soup kitchen for nourishment.
- d. Join a public works labor force (work a second job) to make up the deficit.

Results

- a. The extra traffic in the fields causes the blight to spread to previously healthy portions of the crop, causing further damage and lower yields than before. Additionally, lack of supervision for the newborn and three-year-old has caused the sickness to spread to the newborn. The likelihood of a newborn surviving during time was only 25%.
- b. The underdeveloped potatoes and grain are coarse and cause intestinal problems further inhibiting farm work and nourishment for the family. Your current conditions are now only sustainable for three days.

Britain has just passed the Extended Poor Law, “shifting the cost of feeding the starving masses and the maintenance of poorhouses to the Irish landowner. This, in effect, made eviction of tenant farmers... an efficient way for the landowner to lower his tax (poor rate). Between 1847 and 1851, the eviction rate rose nearly 1000%” (Cantwell, 2017, p. 382). Because you cannot work, your family is evicted, malnourished, and without money.

- c. “Britain did open up soup kitchens, but of 2000 planned, only half were in operation in 1847” (Cantwell, 2017, p. 382). The soup kitchen in Cork is open and was able to sustain you for two more days.
- d. “In an effort to earn some money, I joined a public works labor force, sponsored by the British, building roads and digging ditches that seemed to have little purpose. It did pay 10 pence per day (12 pence equal 1 shilling), almost double my salary as a potato farmer. By August 1846, many of my countrymen had joined me in this endeavor, as the labor force increased fivefold to 560,000” (Cantwell, 2017, p. 382). You were able to more than make up the deficit and have an extra 2 shillings profit, but you must use this for food.

More scenarios like this would be needed that directly address workhouses, weight loss and malnutrition, parliamentary action and taxes, racism, etc. This is based on the historical knowledge gaps that come to light from Table 8.

Climax

The climax of the story should occur when the intensity has grown to unbearable conditions. No human could possibly have the patience or the fortitude to take on such difficult conditions. These conditions can be either mental or physical. It is up to the designer, based on the mountain of primary, historical, and narrative source material created thus far, to decide what that tipping point will be, but is a scenario much grander than what has been seen in past scenarios in the rising action. The climax should be modeled after believable scenarios that would have affected these people in the historical time period. Usually, primary testimonials can assist with this. An example of climactic action for the Irish Potato Famine example is below:

After surviving all of the misfortune brought on by the Famine and the representatives' reactions to it, in 1847, the "Extended Poor Law" was enacted which shifted "the cost of feeding the starving masses and the maintenance of poorhouses to the Irish landowner." In response and to avoid paying the extra tax, Connor's landowner hired a crew of men to come in and destroy all the tenant houses on the property including Connor's. Connor's family and all the neighbors who might assist are homeless. What should he do?

- a. Use the small amount of money Connor has saved to gamble and try to grow the money into enough for the family to sail to America.
- b. Speak with the landowner and beg for assistance.

- c. Employ Connor in the workhouses which requires a move to the city and a few days of begging on the streets of Dublin.

Falling Action

The narrative should be written out for every possible eventuality that might play out given the scenario choices provided. Many ideas for eventualities come directly from primary sources and can be tailored to the specific scenarios. The falling action in the example given was taken from firsthand accounts of the Irish Potato Famine and one family's story of emigration to America. This account documented eventualities beyond emigration such as workhouses and gambling/panhandling:

Falling Action or Results of the Climax.

- a. Connor is not literate enough to read the rules of the gambling hall and gets taken advantage of. He loses his savings. All the family can do now is beg on the streets.
- b. Connor, frustrated with his position in life, confronts the landowner and this grows into an argument. Inevitably, Connor was able to convince the landowner to pay for his family's passage to America, first to Liverpool and eventually to New York (Cantwell, 2017).
- c. The workhouses are already overfilled. There is not enough work to go around. Connor is immediately separated from Shannon, Angus, and Rachel. He is assured that he will see them again if he continues to work hard.

Resolution

The final resolution of the story discusses the historical backing behind the scenarios and the long-lasting legacy this history has on the country and the world. It explicitly establishes the significance of these historical events on the country's sociocultural identity and informs the player of the substantial takeaways from the story. It also leads the theme to its inevitable, matured form. This is a final chance for the narrative to tie up any loose ends created by the scenarios in the conflict and rising action. Sometimes these scenarios can take a lot to unpack and explain to those who are not of that time period. A narrative thread beginning as a single path in the exposition can diverge with different choices and the resolution can be just as diverged as well with relative outcomes based on these same choices.

Resolution.

a. Historically backed information about poverty/begging.

“In general, the poor were deemed to be masters of their own destiny, with poverty regarded as being a self-induced condition caused by laziness, improvidence and excessive reproduction” (Kinealy, 2015).

b. Historically backed information about the great migration to America.

“Throughout the Famine years, nearly a million Irish arrived in the United States. Famine immigrants were the first big wave of poor refugees ever to arrive in the U.S. and Americans were simply overwhelmed. Upon arrival in America, the Irish found the going to be quite tough. With no one to help them, they immediately settled into

the lowest rung of society and waged a daily battle for survival” (History Place, 2000).

c. Historically backed information about the Irish workhouses.

“The inmates’ day started at 6.00 am each morning. After prayers, roll calls, cleanliness inspection, they were given their breakfast of stirabout and milk in tin mugs and plates. They were not permitted to talk at table. Afterwards they were set to work, men and boys breaking stones, which were sold to road-making contractors 1s.4d. per ton. Women and girls worked in Laundrys [sic] and sewing rooms” (Corrigan, 1976, p. 64).

Conclusions over Narrative

Designers can rely on certain tropes of story building, but too much reliance can have the opposite effect, leading players to believe the story is unoriginal, predictable, and boring. Designers should consider how free the characters are to act in the society of the time period. A woman, for instance, would be more shunned in society if she were outspoken about the pressure to marry and bear children in 17th century England. The reaction society would have to her must be fitting for the time period and not informed by the postmodern mindset of the contemporary age. A strong conflict can draw out the intensity of a narrative and can be used to develop other character’s reaction to the protagonist in the game. While the exposition can begin uniformly, the narrative choice developed in this stage can diverge the story into several inevitable endings giving rise to the illusion of choice while still working

within the pre-written framework of the game designer. It is best to serve three to four possible choices per section of the narrative that filter into three to four inevitable outcomes for the protagonist in the resolution section. With all of these choices, the thematic message should be considered which can correspond to the learning objectives of the course for which the game is presented. The Narrative of the video game is the common thread that drives the player motivation to reach the final objectives of the game. Knowing this, the more detail and character development, the more enthralling the experience will be for the player in the eventual game.

Chapter 5: Conclusions

Architecture

The attached appendix contains step-by-step building options through the program RPGMaker MV. At this time in the year 2020, RPGMaker MV allows for a twenty-day free trial. If educators or designers were motivated, they would not have to buy the full version to complete their first RPG. Otherwise, the cost of the full license for RPGMaker is \$79.99. Many departments have professional development and capital needs funds in which to use toward buying the full license if they choose to fully adopt this in later iterations of study abroad coursework. This phase is unique to the others because it is translating the brainstorming ideas into a language that computer programs can understand and execute. Even so, the general required knowledge a designer must have simply consists of a common understanding of computer and RPG terminology. Any specialized terminology that is beyond common

knowledge is defined and explained in the blueprint (see Appendix A). As a program, RPGMaker MV runs upon the same command structure as Microsoft Office Suite.

The architecture blueprint is in no way intended to be exhaustive as the RPGMaker program is equipped to build an infinite amount of game types beyond the scope of this project. It attempts to simply provide a template from which creativity and improvisation can spring. The baseline directions help serve as a tutorial to novice designers and help show the many possibilities without rigidly enforcing one method or storyline over another.

Much of the architecture of the game rests upon outward student knowledge of signs and symbols to navigate themselves through the games. There are the normal semiotic-focused concepts of symbology and the digital semiotics that revolves around a reliance upon the player to, either consciously or subconsciously, understand the architecture of games based on their previous encounters with digital gaming in the past. Digital natives, or students who have grown up with ubiquitous technology, make up the greatest population of general education and study abroad courses. For those less technologically inclined, a tutorial event can be constructed right off the bat to help students navigate their avatar around locative spaces while learning the controls and options provided. While there is always an exception to the rule, digital natives can help the gaming-illiterate population and even further foster a sense of student camaraderie through the collaboration while on the study abroad excursion (Sharritt, 2009). Essentially, student relationships can help surmount the first challenge to information gathering about video game mechanics for the uninitiated.

The greatest hurdle of the architectural stage is striking the balance between too little and too much information. Designers should feel comfortable enough with the program after building the maps and setting up simple tasks so as to continue building outside of the scope of the blueprint created for them. Therefore, what lies within the architecture will amount to a simplistic RPG with one or two tasks outlined for the designer to create. Designers can add more quests or tasks from this template on their own. There are six steps to consider even in the simplest version of an RPG: map-making, building NPC's and events, customizing characters, initiating conflict, building a time system, and winning or losing the game.

For the map making, designers have a large swath of free images to use already pre-loaded in the RPGMaker MV program and more can be purchased as add-on materials. The program sets up the new project with the first map being an overview map as default. An overview map is a zoomed-out version of the entire RPG map where the designer may situate smaller icons on portions of the map (See Figure 4).

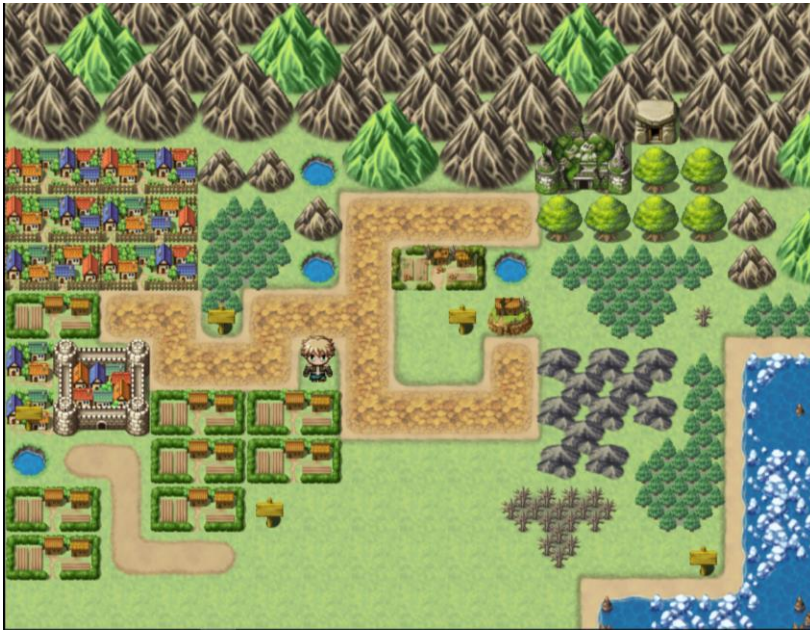


Figure 4. Example overview map with multiple areas the avatar can move over to expand the map upon a single area.

When a character avatar navigates to a particular portion of the map like a town or forest, the character avatar can then be transported to another, more detailed map expressing the limits of the area. Perhaps within a town, the character must go speak with a townspeople or perform a significant event. Performing these functions could not easily be articulated in the scope of a large map, so smaller maps can be

constructed to narrow the focus and provide greater depth to the story. Starting the superficial map and leading to more elaborate “mini-maps” coincides with Reigeluth’s Elaboration Theory (1999) which in turn allows for learners (players) to make their own decisions as to the scope and order in which to approach their learning material. Designers can construct benchmarks and restrictions to locations in order to limit players to the levels of information deemed important for knowledge building, thereby working as a guiding force as the educator. The choice of the designer to restrict certain maps from players until they have achieved a certain skill or strength level can drive motivation to solve problems so that the player may move past the restriction all while sustaining the promise of choice for the player.

The restrictive power of the game can work in time with the study abroad itinerary, providing roadblocks to prevent the player from continuing on until material has been covered in the classroom or until the students attend a particular tour. There could be some secret information provided in class used to open up a new area or the teacher could enlighten the students on a farming technique or cultural tenet with which the students become familiar and inform their choices in the game later on. There are no real limits to the possibilities, but the guidance and restriction can be posed in such a way so as to retain the immersive experience in the game or work in conjunction with student progress rather than learners feeling limited by the pace.

To tailor their design to fit the study abroad environment, the maps and characters should be constructed with an eye for the setting and culture of the location. A designer will need to construct a green and hilly landscape with which to decorate his

or her map if the study abroad location is Ireland. Depending on the time period, how the character avatar and NPC's (non-playable characters) are dressed will need to be customized appropriately. The knowledge needed to accomplish the customization choices will come from the Historical and Fictional Narrative stages of the blueprint and the NPC's have the potential of further informing the player of points of historical or narrative significance. "In addition to being visually accurate, game objects and NPCs must also instruct players on the methods of meaning production that circumscribed the real-world functionality of these objects and informed the existence of people whose lives the NPCs depict" (Neville & Shelton, 2010, p.617-618). In the Architecture stage, the designer must transfer these essential details into the computer program to provide a believable atmosphere in which players can become immersed. Any challenges or steppingstones in the process, if approached with an appropriate amount of flow can promote further immersion. "By virtue of their participation in the game, they [players] have taken on as meaningful the game's presumptions and proscriptions, including everything associated with winning" (Salen & Zimmerman, 2004, p. 250). From the main character customization, designers can extend this knowledge to the NPC's with whom the main character may or may not interact but are essential to the aesthetic of the game and the inevitable learning of the player/learner.

Along with setting and character customization comes building the essential and non-essential events that make up the fictional narrative and driving force behind plot movement for the character to progress. Conflict in fiction can be derived from

multiple sources, from physical altercations to emotional duress, and with those conflicts come a different kind of architectural build that diverges from the initial blueprint. A challenge to the blueprint design is to provide information on multiple conflict choices to help build the eventual narrative of a game that has yet to exist because it hasn't been created yet by the educator. This is described in Salen and Zimmerman (2004) "games are constructed so that their goals are difficult to achieve. The conflict of a game arises as the game players struggle toward achieving the goal" (p. 250). The authors have identified seven types of conflict that can appear in games: single player vs. single player, group versus group, one against many, every player for themselves, single player against a game system, individual players competing side by side, and a group of players cooperating against a game. This RPG coupled with the individual grade distribution of classwork narrows the conflict possibilities for a player of this project to be individual players competing against the computer.

However, the computer program may present this conflict in multiple game disguises all of which require different format and language in the architecture. Some examples include random encounter games, battle system games, farming games, bounty hunting games, and construction games. What the game will expect your character avatar to do will widely vary depending on the build of the game. Therefore, it's subsequent conflict, the challenges presented by each kind of build, will vary widely as well. To be able to map out every kind of conflict for this project can turn into a monumental amount of work (writing out directions on every kind of game build) for a limited audience. To answer this challenge, the game builds most

suited for history and humanities (battles and farming) became the two conflict builders covered in the blueprint.

Battle encounters must consider how often the random encounter is triggered. The program sets it up to be determined by the number of steps taken by the avatar in the game. So, designers will need to gauge a number of steps based on the size of the map and at what level of difficulty a current character avatar might be. The designer should strike a balance between giving players the opportunity to succeed or annoying the players with too many random battles encounters at once. Too many might become monotonous for the players and not enough might not prepare their character for later challenges. Depending on how complex or extensive the designer makes the RPG, consideration should be made for designing battles with enemies that are challenging, but not overbearing or impossible to beat considering the level at which the character finds him or herself in the game when the battle begins.

However, what further complicates the template is the kind of conflict inherent in the historical timeline and fictional narrative. The conflicts in these stages will have to be translated into the program in the guise of “builds.” These builds must be decided early on in the development of the game and they can appear in many forms. A build is the structure to which the game is based and from which game objectives can be decided. Examples of this include fishing, farming, questing, battling, or puzzles. If a character’s story is based in World War II, for instance, and the character is a French person expelling Nazis from his or her hometown, this translates to a battling build which is a separate set of instructions compared to the

example of the Irish Potato Famine given throughout this project where the character would be struggling to bring potatoes or other cheap crops to harvest. Some storylines call for a mixture of compatible builds. The Famine storyline would clearly be a farming build with some questing elements. Yet some builds are somewhat incompatible or would require multiple maps to achieve, like the battling and farming builds. For the purposes of this blueprint, battling and farming builds were provided along with the superficial instructions on design. Should a designer wish to employ a separate build, there are a number of YouTube commentators who placed their build instructions online for others to follow.

There are myriad ways in which battles can be constructed. Some examples include hunting, random encounters, strategic warfare, and ransom/law enforcement. The most generic battle system for this project would be random encounters, so this was the only battle build described in the architecture, but it is important for the designers to recognize their options to feel guided but not limited.

Another important aspect of the game architecture when creating a historical RPG is some time-keeping device added into the game. There might be common events, or events affecting the entire world rather than the singular character avatar, that need to correspond to a significant historical date so as to impact the way the game runs or to introduce a primary conflict (like the potato blight beginning to take hold or parliament's decisions to NOT assist the Irish farmers). To rectify this, the blueprint includes a tutorial on setting game time and aligning common events to significant time slots that match the historical and narrative structure of the game.

There is a myriad of options available to designers, more features than can possibly be incorporated into a single RPG. To retain brevity, cosmetic or stylistic customizations to the RPG were kept to a minimum and only as they pertain to tailoring the RPG to a particular study abroad setting. The point of view of the RPG can be altered from above to first person and even to side-view. This serves only the aesthetic preferences of the designer and players rather than the game itself, so this was left out. Examples of dialogue were kept to a minimum and editing is highly encouraged through the blueprint to make the textual messages serve the unique storyline created by the unknown designer.

While the majority of this is preferential to the educator/designer, this game is a way to access primary sources that appeared during the time period in a meaningful way that informs the student about the overall difficulty of life and decisions. Primary source material includes newspaper articles, political cartoons, folk music, and journal entries from the time period. The information gathered therein coupled with a general knowledge of foresight into future events will help students make logical choices for their characters. Designers may upload primary source material in the common events corresponding to a specific time in the engineered time system. These primary documents can appear on the screen on top of the character and the current map and when students click away, a text dialogue can inform the player what this means for the game difficulty and the character him or herself.

The goal of the game is for students to keep their characters alive and thriving by making choices as their characters. Winning the game translates to players

overcoming the final challenges of the game build specified through the initial conflict of the fictional narrative. If a character's conflict in the narrative is against other characters, there is a final fight scene with the ultimate bad guy. Upon winning, the player is shown the game over screen leading to the falling action of the story. This might be tying up loose ends with the NPC's or setting something right that had been wrong for the majority of the game. The final elements unwind, and the player receives the final victorious "Game Complete- You've Won" dialogue. This entire scene would be set out just the same in a farming conflict, only the object is to outlast the incurring famine and to keep the character's family healthy. A final complicating event can arise in the farming RPG to which the character either overcomes or succumbs. Regardless, the falling action signals are the same with final unraveling elements and a final dialogue text.

By simulating the events and putting the players through trials and challenges, the students are tasked with developing an all-encompassing understanding of the issues pertaining to the historical record, which is matched with the learning objectives for a study abroad Humanities course. To develop a sympathy and appreciation for the historical and cultural legacies of a host country is the hallmark of most study abroad programs. Students are learning the material in an immersive experience matched by immersion felt on location during the course.

Critique

In order for the designer's RPG to truly be a success, other knowledgeable people must run through the stages and play the game to assess whether or not the game meets certain educational and gaming criteria. Considering this is a historical RPG, playtesters should be authorities on the subject matter, the educational material, the gaming mechanics or all of the above. An ever-present goal of History and Humanities classrooms is to put the material into the learner's perspective and invite the learner to consider alternative points of view as well. These outcomes can work in tandem with the goals of the player's avatar and thus the success of the player/learner in the game.

Considering both the educational and ludic (game-science and entertainment based) concerns brought about in the research, a questionnaire was developed to be administered to individuals participating in playtesting the educational RPG. The critical questions compiled for the playtesters were derived from multiple sources and are comprised of directed and open-ended style questions to ensure that the designer can get pointed feedback about significant parts of the game while leaving room for facets of the experience the designer had not anticipated. There are three sections to the questionnaire: educational, game mechanics, and entertainment. On the educational side, elements brought up in the literature review that directly impact the player's reception to game and the learning outcomes--flow, structure, player behavior, and historical neutrality--were considered most heavily in the questionnaire (See Table 10). Finally, when considering a historical RPG, historical neutrality

pertains to the attention devoted to keeping a proper temporal sequence of events, rendering of causality and multicausality (depending on the complexity of the historical events), and opportunities for the player to investigate multiple perspectives on the event. Multiple perspectives include providing information from various socioeconomic classes, races, belief systems, and genders.

Table 10

Educational Section of Playtest Questionnaire

The Historical	<u>4 =</u>	<u>3 =</u>	<u>2 =</u>	<u>1 =</u>	<u>0 = not at</u>
information provides an	<u>Very</u>	<u>Somewhat</u>	<u>unsure</u>	<u>somewhat</u>	<u>all</u>
accurate impression of the	<u>Familiar</u>	<u>familiar</u>		<u>unfamiliar</u>	<u>familiar/</u>
impact certain historical					<u>never</u>
events had on the study					<u>heard</u>
abroad location's					
culture?					

Explanation of your
answer. Is there an
example you can provide
for better clarity?

Players gather a sense of	<u>4 =</u>	<u>3 =</u>	<u>2 =</u>	<u>1 =</u>	<u>0 = not at</u>
temporality (time order) in	<u>Very</u>	<u>Somewhat</u>	<u>unsure</u>	<u>somewhat</u>	<u>all</u>
the historical sequence set	<u>Familiar</u>	<u>familiar</u>		<u>unfamiliar</u>	<u>familiar/</u>
forth by the game					<u>never</u>
					<u>heard</u>
Explanation of your					
answer. Is there an					
example you can provide					
for better clarity?					
Players gather a sense of	<u>4 =</u>	<u>3 =</u>	<u>2 =</u>	<u>1 =</u>	<u>0 = not at</u>
causality or multicausality	<u>Very</u>	<u>Somewhat</u>	<u>unsure</u>	<u>somewhat</u>	<u>all</u>
in the historical and	<u>Familiar</u>	<u>familiar</u>		<u>unfamiliar</u>	<u>familiar/</u>
narrative sequence set					<u>never</u>
forth by the game. (i.e.					<u>heard</u>
were there elements in the					
narrative that showed the					
root causes behind					
historical events?)					

Explanation of your
answer. Is there an
example you can provide
for better clarity?

Players gather a sense of	<u>4 =</u>	<u>3 =</u>	<u>2 =</u>	<u>1 =</u>	<u>0 = not at</u>
multiperspectivity in the	<u>Very</u>	<u>Somewhat</u>	<u>unsure</u>	<u>somewhat</u>	<u>all</u>
historical and narrative	<u>Familiar</u>	<u>familiar</u>		<u>unfamiliar</u>	<u>familiar/</u>
sequence set forth by the					<u>never</u>
game. (i.e. were there					<u>heard</u>
elements in the narrative					
of the game that promoted					
viewing the historical					
events from multiple					
perspectives such as class,					
race, gender, etc.)					

Explanation of your
answer. Is there an
example you can provide
for better clarity?

In terms of flow, the theorists relate this to gameplay as a natural progression from one game state to another without being too difficult or too easy on the player. This “flow state” is marked by high excitement and thus high investment and outcome progression. When structure is brought up in the literature, it focuses on the apparatus of the game from which players derive semiotic meanings. How easy are the images coded by the player to mean the intended meaning of the designer? (How easy are the players able to gather that an icon of a paper bag is meant to represent a bag of seeds the player must use to plant their crops? Is there a need for a tutorial level for the players to acquire these meanings?) Player behavior is described as the motivations and actions of the player and how much that corresponds to the motivations and actions anticipated by the designer. (Did they stay on task? Or did the player walk off on a side quest and get lost picking flowers which has nothing to do with the initial task?) Player motivation and investment were the inspiration for the Entertainment section of the questionnaire (see Table 11). Immersion and flow states are more difficult to quantifiably measure, so this portion of the questionnaire consists of open-ended questions.

Table 11*Entertainment Section of the Playtest Questionnaire*

What was the most frustrating moment or aspect of what you just played?

What was your favorite moment or aspect of what you just played?

If you had a magic wand to wave, and you could change, add, or remove anything from the experience, what would it be?

How would you describe this game to your friends and family?

Did the historical music in each area help with the enjoyment of or immersion in the game?

Can you elaborate on what you mean from your answer above? Any examples you can think of?

Did the historical documents in each area help with the enjoyment of or immersion in the game?

Can you elaborate on what you mean from your answer above? Any examples you can think of?

Outside of the academic framework or evaluation comes the ludic or playtest evaluative material. What concerns a game tester will not be found in the same journals and peer reviewed articles as the academic concerns are. The majority of material around evaluative questions for video games were on video game development websites. Schell games, the self-proposed “largest full-service education and entertainment game development company in the United States” touts an impressive collection of educational games found on the Oculus, PlayStation, and Steam stores (Schell Games, n.d.). The website’s blog from the principal designer, Shawn Patton, provided a master list of questions, how to word them to avoid appearing confrontational or patronizing, and provided handy guides on how to set up playtests and distribute questions (Patton, 2017). It provided examples of poor, better, and best written questions that allowed open-ended discussions which are necessary for an RPG blueprint whose product’s appearance could be infinite. Any specific examples or pointed questions to a specific narrative or game build could potentially

be inapplicable. Therefore, the “top down” questions where playtesters volunteer specific elaborative examples is the best practice for this project. The playtest questions contributed to the entertainment and structural portions of the game which overlapped with some academic concerns like flow, interactivity and structure (see Table 13). The playtest questions ventured into their own concerns that are just as viable such as strategy and description, and bugs or errors.

Table 12

Game Mechanics Section of the Playtest Questionnaire

Was there anything you wanted to do but couldn't?

<p>Were the gatekeeping elements (objects or non-playable characters [NPC's] designed to block progress until the player reaches a high enough level to continue) believable? Did they work well with the surrounding area to seem plausible?</p>	<p>Yes No Maybe</p>
---	-------------------------

Can you elaborate on your above answer? Maybe provide an example?

Is there enough time between battling or farming events so as to not seem annoying or monotonous?

Are there tasks set upon the character that make sense without seeming tedious? How much time did you feel like you were playing for?

Could you play the game again without following a tutorial? Yes No Maybe

Did the game invite you to build a strategy for winning? Yes No Maybe

Are there any assumptions the game makes about the game itself or the player?

To put the questions into perspective, Table 13 aligns the academic and ludic concerns from the research with the questions posed to playtesters and meant to incite the most feedback about how well the RPG did surrounding these concerns. It synthesizes educational, cognitive, and entertaining centric questions into a

questionnaire that balances gameplay with learning. The first column identifies the game element that has shown to be influential to player learning. The next column ranks the game element's overall level of influence from low to high and the third column identifies which questions from the critique questionnaire corresponds to which game elements. Some questions are more open-ended (short answer) which creates the possibility of an answer corresponding to a game element while other questions directly ask about the game element. The designer can draw conclusions on what game element needs most revision based on the amount of answers directly or indirectly identifying them. This will help expedite the revision process, determining to what stage of the blueprinting process to return and revise. The return to previous stages is an expected and welcome resolution to the blueprint stages as it corroborates the iterative design structure discussed by Salen and Zimmerman (2004) and ensures the inevitable final product has met with multiple interpretations of the product and will strike the most positive interpretation with the eventual students playing the game:

Table 13*Game Elements Aligned to Critique Question Relevance*

Game Element	Power/ Influence to Learning (high, medium, low)	Aligned Criteria from Questionnaire
Flow (Csikszentmihalyi, 1990; Gee & Shaffer, 2010)	high	1.1, 1.2, 2.2-2.4, 2.5, 3.1-3.3, 3.5, 3.6.
Interactivity and Player Behavior (Kaptelinin & Nardi, 2006; Leontiev, 1978; Norman 1988)	high	1.1-1.4, 2.1-2.7, 3.1-3.6.
Structure (Sharritt, 2010)	medium	2.1-2.7, 3.1-3.3.
Historical Temporality (Radetich & Jakubowicz, 2015)	high	1.2, 2.2, 2.3, 3.1, 3.5, 3.6.
Historical Causality (Radetich & Jakubowicz, 2015)	medium	1.3, 2.2, 2.4, 2.7, 3.1, 3.5, 3.6.

Historical Multiperspectivity	medium	2.7, 3.1, 3.4-3.6.
(Radetich & Jakubowicz, 2015)		
Strategy and Description	low, but high for immersion	2.2, 2.4, 2.6-2.7, 3.4

The questionnaire in the Appendix was constructed using Google Forms and follows the theme of the Irish Potato Famine for the example game titled *Blight*. While not required to be created in Google Forms, this questionnaire was written in the program to help with ease of customization and distribution. Playtesters may be administered the questionnaire via web link which ensures anonymity, if required, but also allows for the playtester to answer without the influence of the designer in the room. Without the designer's presence, the opportunity for open recall and candor from playtesters is increased. Also, by allowing playtesters to return to the questions at a later time, designers have a better chance of receiving more in-depth, less reactionary answers. The goal is to ascertain the lingering impressions that game provides to a player, which corresponds to the lingering knowledge the game can provide students long after the game has ended.

Next Steps

The designers are expected to run through these stages of development multiple times based on the feedback delivered by the critique stage. In most cases, the educator and designer are one in the same, but should there be this disconnect, the designer would need to work closely with the educator to meet their educational delivery needs in all stages of the blueprint. The RPG is such that it can complement a wide variety of course delivery styles, whether the educator wishes to hold a classroom seminar over the gameplay or uses class time to let the students play the game: both and more can be accommodated with game elements. The designer will know when they have a finished product by the limited amount of feedback that presents itself in the critique stage. There will be a point where student feedback will be the only thing left to compile. As Salen and Zimmerman (2004) stated, there is no real way of knowing how well a game will be received until after the intended audience has had the opportunity to view and participate in the product. It is then that the designers deliver the final game to the educator for implementation into their study abroad course.

The inevitable RPG that comes out of the blueprint will be implemented into the study abroad classroom by using student's smart devices or laptops (cell phone, tablet, or laptop). Students who do not have these devices can still participate by using the host university's facilities. RPG Maker MV has the ability to build games for Apple, PC, and mobile application products. Students may gain access to the game via link, download from a flash drive, or embed on the school's Learning

Management System (Blackboard, Canvas, D2L, etc.). A schedule of tasks based on the RPG along with due dates will need to be constructed so that students are able to properly pace themselves in the game in conjunction with the study abroad itinerary. This is entirely of the educator's invention and usually can be placed in the syllabus for the course being offered in the study abroad format.

The educator should expect some feedback by the students on the machinations of the game and the implementation into the course delivery as these are the two most variable and unpredictable aspects of most study abroad classrooms. It is unclear how the students will receive the game and the information therein, so the educator must take note of any areas of frustration or confusion during reflection in class. A good idea is to pull the critique questions from the blueprint and ask the students to answer them at the end. Whatever feedback students supply can be brought back to the designer to make edits and fixes based on their playtest. The designer will review the feedback from the students and address concerns based on what stage is most affected by the feedback. This revision process could potentially continue for years and through countless study abroad programs, all the while adding more detail to the finished game.

This project has many implications for future study including using this instructional tool as an alternative form of assessment outside of the traditional scope of assessment materials for study abroad. Developing new forms of assessment could help in further identifying intercultural competencies and the overall mastery of course information of students while abroad. It is relatively unknown how well

simulation assessment material would be received for the humanities and social science curriculum and completely unknown are the uses of simulation during study abroad.

Limitations of the study

Given the nature of the game, this study best serves a general education, study abroad classroom. Portions of the game could be tweaked to cover more intensive, upper-level coursework, but the primary goals of this capstone were addressed to the lower-level courses, where a great number of students attending study abroad are found. Not just general education, this capstone is intended for study abroad general education which gravitates around the social sciences, humanities, and English classes.

The amount of terminable time that can be reliably devoted to this process varies in multiple ways. For instance, this game is not intended to be used for a full 16-week class. The amount of content needed to fill a 16-week semester for a game is far too vast an enterprise to take on. By the same token, there should be enough time in the study abroad program for students to be able to commit time and energy for full player immersion. Anything shorter than two weeks might prove difficult to achieve the desired level of immersion in the student. the game does not work by itself as an assessment tool, but rather in conjunction with lectures, group work, and excursion tours. It is the responsibility of the designer and educator to make decisions that best implement the game into the study abroad course work. There are far too many options in course delivery style and program itinerary to be able to anticipate all the ways that the game may be implemented into a certain program. With implementation comes criticism from students and designers, but until there is enough data to gather trends on the possible implementation problems, a response cannot be formulated.

The revision process based on student feedback could be impeded by paused or canceled study abroad programs. There have been programs that do not repeat a study abroad excursion every year to the same location and this would, no doubt, affect the progress of feedback for a location specific RPG. So even the act of revision could extend far into the future.

Not only will the timeliness of the feedback vary, but also the type of feedback has yet to be seen. Because an RPG has yet to ever be implemented into an onsite study abroad program, the possible areas of feedback from students remains unknown which leaves further revision process beyond the scope of this study. There may one day be enough data compiled so as to make a statement as to the effectiveness of a digital RPG on intercultural competency and rote mastery of course objectives; however, there is not enough data to support this assertion. However, that does not mean this goal is not worthwhile as the need for more reliable assessment data is persists in the study abroad classroom.

References

- Aarseth, E. J. (1997). *Cybertext: Perspectives on ergodic literature*. Danvers, MA: Johns Hopkins University Press.
- Aguilar, A. L., & Gingerich, O. (2002). Experiential pedagogy for study abroad: Educating for global citizenship. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 8, 41-82.
- Amerson, R. & Livingston, W. G. (2014). Reflexive photography: An alternative method for documenting the learning process of cultural competence. *Journal of Transcultural Nursing* 25(2), 202-210, doi: 10.1177/1043659613515719
- Astington, J. W., Harris, P. L., & Olson, D. R. (1990). *Developing theories of mind*. Cambridge, UK: Cambridge University Press.
- Äyrämö, S. M. (2011). 'Narrative' in serious or learning game design research. *Working with Stories. Narrative as a Meeting Place for Theory, Analysis and Practice: Proceedings from the 2nd ENN Conference*. Kolding, Denmark: Semantic Scholar. Retrieved from <https://pdfs.semanticscholar.org/f941/fcdabb3e70d0c25e9327524f23d3104ed3de3.pdf>
- Azmi, M. (December, 2016). Developing game based on historical event with RPG Maker MV. *International Conference on Learning Innovation and Quality Education*. Surakarta, Indonesia: Researchgate. Retrieved from https://www.researchgate.net/publication/324908532_Developing_Game_Based_on_Historical_Event_with_RPG_Maker_MV
- Bakhtin, M., & Holquist, M. (1981). *The dialogic imagination: Four essays* (University of Texas Press Slavic series; no. 1). Austin: University of Texas Press.
- Barron, A. (2003). *Acquisition in interlanguage pragmatics: Learning how to do things with words in a study abroad context*. Amsterdam, The Netherlands: John Benjamins Publishing.
- Bell, S., Shallenberger, D., & Torres, M. (2018). *Assessment, Evaluation, and Case Studies: Can't Get No Satisfaction*. Presentation presented at the 2018 Forum on Education Abroad conference, Boston, MA.

- Bell, H., Gibson, H., Tarrant, M., Perry, L. & Stoner, L. (2014). Transformational learning through study abroad: US students' reflections on learning about sustainability in the South Pacific. *Leisure Studies*, doi: 10.1080/02614367.962585
- Berwick, R. F., & Whalley, T. R. (2000). The experiential bases of culture learning: A case study of Canadian high schoolers in Japan. *International Journal of Intercultural Relations* (24) 325-340.
- Blumberg, F. C. (2011). Ramifications of video game play for academic learning and cognitive skill acquisition: Introduction. *Child Development Perspectives*, 5, 73-74.
- Bok, D. (2006). *Our underachieving colleges: A candid look at how much students learn and why they should be learning more*. Princeton, NJ: Princeton University Press.
- Brecht, R. D., Davidson, D., & Ginsberg, R. (1993). Predictors of foreign language gain during study abroad. *NFLC Occasional Paper*. Washington, DC: National Foreign Language Center.
- Brown, L. (2009). The transformative power of the international sojourn. *Annals of Tourism Research*, 36(3), 502-521.
- Butteris, S.M., Gladding, S. P., Eppich, W., Hagen, S.A., & Pitt, M. B. (2014). Simulation Use for Global Away Rotations (SUGAR): Preparing Residents for Emotional Challenges Abroad—A Multicenter Study. *Academic Pediatrics*, 14(5), 533-541.
- Campbell, J. (1949). *The hero with a thousand faces*. Princeton, N.J.: Princeton University Press.
- Campbell, S. W. (2005). Perceptions of mobile phones in college classrooms: Ringing, cheating, and classroom policies. *Communication Education*, 55, 280-294.
- Cantwell, J. D. (2017). A great-grandfather's account of the Irish Potato Famine (1845-1850). *Baylor University Medical Center Proceedings*, 30(3), 382-383.
- Carnegie Mellon University. (2011). *Study abroad handbook* [PDF file]. Pittsburg, PA: Office of International Education. Retrieved from <https://www.cmu.edu/studyabroad/docs/Handbook.pdf>

- Chee, Y. S. (2016). *Games-to-teach or games-to-learn: Unlocking the power of digital game-based learning through performance*. Singapore: Springer.
- Cheng, D. (2018, June 14). Nine reasons why Chinese students choose to study abroad. *Times Higher Education (THE)*. Retrieved from <https://www.timeshighereducation.com/student/advice/nine-reasons-why-chinese-students-choose-study-abroad>
- Clark, D.R. (2004). Kolb's Learning Styles and Experiential Learning Model. Retrieved from <http://nwlink.com/~donclark/leader/leadcon.html>
- Cohen, A. D., Paige, R. M., Kappler, B., Chi, J.C., & Lassegard, J. P. (2005). *Maximizing Study Abroad Through Language and Culture Strategies: Research on Students, Study Abroad Program Professionals, and Language Instructors*. Center for Advanced Research on Language Acquisition. University of MN.
- Corder, D. & U-Mackey, A., (2018). Intercultural competence and virtual worlds. In D. Wood & Sue Gregory (Eds.), *Authentic Virtual World*. (pp. 25-44). Singapore: Springer. (Original work published 2018).
- Corrigan, F. (1976). Dublin Workhouses during the Great Famine. *Dublin Historical Record*, 29(2), 59-65. Retrieved from www.jstor.org/stable/30105475
- Corrozzino, M. (2010). Beyond virtual museums: Experiencing immersive virtual reality in real museums. *Journal of Cultural Heritage*, 11(4): 452-458. Retrieved from <https://www.sciencedirect.com/science/article/pii/S1296207410000543>
- Christie, M., Carey, M., Robertson, A., & Grainger, P. (2015). Putting transformative learning theory into practice. *Australian Journal of Adult Learning*, 55(1), 10-30.
- Craig, S. D., Graesser, A. C., Sullins, J., & Gholson, B. (2004). Affect and learning: An exploratory look into the role of affect in learning with AutoTutor. *Journal of Educational Media*, 29, 241–250. <http://dx.doi.org/10.1080/1358165042000283101>
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper and Row.

- Czerwionka, L., Artamonova, T., & Barbosa, M. (2015). Intercultural knowledge development: Evidence from student interviews during short-term study abroad. *International Journal of Intercultural Relations*, 49, 80-99.
- Deans, C. P. (2012). Integration of study abroad with social media technologies and decision-making applications. *Decision Sciences Journal of Innovative Education*, 10(3), 299–336. doi:10.1111/j.1540-4609.2012.00344.x.
- De Freitas, S., Rebolledo-Mendez, G., Liarokapis, F., Magoulas, G., & Poulovassilis, A. (2010). Learning as immersive experiences: Using the four-dimensional framework for designing and evaluating immersive learning experiences in a virtual world. *British Journal of Educational Technology*, 41, 69–85. <http://dx.doi.org/10.1111/j.1467-8535.2009.01024.x>
- DeJaeghere, J. & Cao, Y. (2009). U.S. Teachers' Intercultural Competence: Does professional development matter? *International Journal of Intercultural Relations*, 33, 437-447.
- De Ley, H. (1975). Organized programs of study in France: Some contributions of Stranger Theory. *The French Review*, 48(5), 836-847.
- Deutschmann, M., Steinvall, A., & Lagerström, A. (2011). Gender-Bending in Virtual Space: Using Voice-Morphing in Second Life to Raise Sociolinguistic Gender Awareness. In *Learning a Language in Virtual Worlds: A Review of Innovation and ICT in Language Teaching Methodology*, International Conference, Warsaw, 17th November 2011 (pp. 54–61). Warsaw: Warsaw Academy of Computer Science, Management and Administration. Retrieved from <http://urn.kb.se/resolve?urn=urn:nbn:se:oru:diva-56479>
- Dey, E., Burn, H., & Gerdes, D. (2009). Bringing the Classroom to the Web: Effects of Using New Technologies to Capture and Deliver Lectures. *Research in Higher Education*, 50(4), 377-393. Retrieved from <http://www.jstor.org/argo.library.okstate.edu/stable/29782929>
- Dewey, John (1997). *Experience and Education*. Touchstone Edition. New York: Simon and Schuster.
- D'Mello, S., & Graesser, A. (2014). Confusion and its dynamics during device comprehension with breakdown scenarios. *Acta Psychologica*, 151, 106–116. <http://dx.doi.org/10.1016/j.actpsy.2014.06.005>
- Doll, W. E. (1993). *A Post-Modern Perspective on Curriculum*. New York, NY: Teachers College Press.

- Don't Let These 10 Study Abroad Myths Hold You Back! (n.d.). Retrieved September 25, 2019, from Educations.com website:
<https://www.educations.com/articles-and-advice/dont-let-these-10-study-abroad-myths-hold-you-back-12720>
- Douthit, T., Schaake, S., McCammant, M., Grieger, D., & Bormann, J. (2015). Student blogs and journals as assessment tools for faculty-led study abroad trips 1. *NACTA Journal*, 59(3), 213-218.
- Engle, J. (1986, October 22). Study abroad: It's good for students if it's well-planned. *The Chronicle of Higher Education*, 33, 88.
- Engle, L., & Engle, J. (2003). Study abroad levels: Toward a classification of program types. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 9, 1-20.
- Engle, L. (2015). The rewards of qualitative assessment appropriate to study abroad. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 22, 111-126.
- Erikson, E. H., & Erikson, J. M. (1998). *The life cycle completed: Extended version*. New York: Norton.
- Europe. (2019). Retrieved from <http://suabroad.syr.edu/destinations/short-term-programs/europe/>
- Fairclough, N. (1989). *Language and power*. London: Longman.
- Fang, B. (2009, December 22). From distraction to engagement: Wireless devices in the classroom. *Why IT Matters in Higher Education*. Educause. Retrieved from <https://er.educause.edu/en/Articles/2009/12/From-Distraction-to-Engagement-Wireless-Devices-in-the-Classroom>
- Fischer, L. E. (2013). "RevQuest: The black chambers': Bringing together technology and gaming at a historical site, *Digital Heritage International Congress*, 551-558.
- Fletcher, J. D., & Tobias, S. (2005). The multimedia principle. In R. Mayer (Ed.), *The Cambridge handbook of multimedia learning* (pp. 117-133). New York, NY: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9780511816819.008>

- Freed, B. F. (1995). What makes us think that students who study abroad become fluent? In B. Freed (Ed.), *Second Language Acquisition in a Study Abroad Context*. (pp.123-149). Amsterdam, The Netherlands: John Benjamins Publishing.
- Freire, P. (2000). *Pedagogy of the Oppressed*. 30th Anniversary Edition. New York: Continuum.
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition & Emotion*, 19, 313–332. <http://dx.doi.org/10.1080/02699930441000238>
- Fusco, D. J. (2017, July 12). How much does it cost to study abroad? *GoAbroad.com*, Retrieved from <https://www.goabroad.com/articles/study-abroad/how-much-does-it-cost-to-study-abroad>
- Gambino, G., & Hashim, S. (2015). In their own words: Assessing global citizenship in a short-term study-abroad program in Bangladesh. *Journal of Political Science Education*, 12(1), 1-14.
- Gardner, P., Gross, L., & Stieglitz, I. (2008). Unpacking your study abroad experience: Critical reflection for workplace competencies (CERI research brief 1-2008). Michigan State University: Collegiate Employment Research Institute.
- Gee, J.P. (2003). *What Video Games Have to Teach Us about Learning and Literacy*. New York, NY: MacMillan.
- Gee, J.P. (2005). Semiotic social spaces and affinity spaces. *Beyond Communities of Practice*, 214-32, Ed. David Barton and Karin Tusting. Cambridge: Cambridge UP.
- Gee, J.P. and D.W. Shaffer. *Looking Where the Light Is Bad: Video Games and the Future of Assessment* (Epistemic Games Group Working Paper No. 2010-02). Madison: University of Wisconsin—Madison.
- Gibson, K. L., Rimmington, G. M., & Landwehr-Brown, M. (2007). Developing global awareness and responsible world citizenship with global learning. *Roeper Review*, 30(1), 11-23, doi: 10.1080/02783190701836270.
- Godwin-Jones, R. (2016). Integrating technology into study abroad. *Language Learning & Technology*, 20(1), 1-20. Retrieved from <http://llt.msu.edu/issues/february2016/emerging.pdf>

- Gochenour, T., and Janeway, T. (1993). Seven concepts in cross-cultural interaction: A training design. *Beyond Experience: An Experiential Approach to Cross-Cultural Education*. T. Gochenour (Ed.). 2nd ed. Yarmouth, ME: Intercultural Press, 1-9.
- Graesser, A. C., D'Mello, S. K., & Strain, A. C. (2014). Emotions in advanced learning technologies. In R. Pekrun, & L. Linnenbrink-Garcia (Eds.), *International Handbook of Emotions in Education* (pp. 473–493). New York, NY: Routledge
- Grant, S., Huang, H., & Pasfield-Neofitou, S. (2018). Engagement in Second Life: Language anxiety and motivation. In D. Wood & S. Gregory (Eds.), *Authentic Virtual World*. (pp. 95-116). Singapore: Springer. (Original work published 2018).
- Gregory, S. & Wood, D. (Eds.). (2018). *Authentic Virtual World Education: Facilitating Cultural Engagement and Creativity*. Singapore: Springer.
- Gros, B. (2007). Digital games in education. *Journal of Research on Technology in Education*, 40(1), 23-38. doi: 10.1080/15391523.2007.10782494.
- Hamir, H. B. (2011). Go abroad, and graduate on-time: Study abroad participation, degree completion, and time-to-degree. *Educational administration: Theses, dissertations, and student research*. 65. Retrieved from <http://digitalcommons.unl.edu/cehsedaddiss/65>
- Hammer, M. R. (2012). The intercultural development inventory: A new frontier in assessment and development of intercultural competence. *Student Learning Abroad: What Students Are Learning, What They Are Not, and What We Can Do about It*. M. Vande Berg, R.M. Paige, & K. Hemming Lou (Eds.). Sterling, VA: Stylus Publishing, 2012.
- Helyer, R. (2018). Editorial. *Higher Education, Skills and Work - Based Learning*, 8(2), 110-112.
doi:<http://dx.doi.org/argo.library.okstate.edu/10.1108/HESWBL-05-2018-101>
- Hinchey, P. H., (2010). *Finding Freedom in the Classroom: A Practical Introduction to critical Theory*, Rev. ed., Peter Lang, New York.
- History Place, The. (2000). Irish Potato Famine. Retrieved from <https://www.historyplace.com/worldhistory/famine/america.htm>

- Hoffa, W. (2007). *A History of U.S. Study Abroad: Beginnings to 1965*. *Frontiers: The Interdisciplinary Journal of Study Abroad*, Special Issue, Lancaster, PA: Whitmore Printing.
- Houghton, S. A. (2014). Exploring manifestations of curiosity in study abroad as part of intercultural communicative competence. *System*, 42, 368-382. doi: <https://doi.org/10.1016/j.system.2013.12.024>
- Howard, W., Perrotte, G., Lee, M., & Frisone, J. (2017). A formative case evaluation for the design of an online delivery model providing access to study abroad activities. *Online Learning*, 21(3), 115-134. Retrieved from <http://argo.library.okstate.edu/login?url=https://search.proquest.com/docview/1969018885?accountid=4117>
- Huesca, R. (2013, January 14). How Facebook can ruin study abroad. *Chronicle of Higher Education*, 59(19), Retrieved from <http://chronicle.com/article/How-Facebook-Can-Ruin-Study/136633/>
- Institute of International Education. (2019). Detailed duration of U.S. study abroad 2006/07-2016/17. *Open Doors Report on International Educational Exchange*. Retrieved from <https://www.iie.org/Research-and-Insights/Open-Doors/Data>.
- Isen, A. M. (2002). Missing in action in the AIM: Positive affect's facilitation of cognitive flexibility, innovation, and problem solving. *Psychological Inquiry*, 13(1), 57-65.
- Itin, C. M. (1999). Reasserting the philosophy of experiential education as a vehicle for change in the 21st century. *The Journal of Experiential Education*, 22(2), 91-98.
- Jackson, L. D. (2012). Is mobile technology in the classroom a helpful tool or a distraction?: A report of university students' attitudes, usage practices, and suggestions for policies. *International Journal of Technology, Knowledge & Society*, 8(5), 129-140.
- Järvinen, A. (2009). Understanding video games as emotional experiences. In Perron, B., & Wolf, M. J. P. (Eds.), *The video game theory reader 2* (pp. 85-108). New York: Routledge.
- Kaptelinin, V., & Nardi, B. (2006). *Acting with technology: Activity theory and interaction design*. Cambridge, MA: MIT Press.
- Kickmeier-Rust, M.D., Steiner, C. M., Mattheiss, E., & Albert, D. (2010). A Glissade on the Learning Curve: Multiadaptive Immersive Educational

- Games. *Edutainment 2010*, LNCS 6249/2010, 361–366. doi: 10.1007/978-3-642-14533-9_37
- Kinealy, C. (2015). Saving the Irish poor: Charity and the Great Famine. *Mémoire(s), Identité(s), Marginalité(s) Dans le Monde Occidental Contemporain*, 12. Retrieved from <https://doi.org/10.4000/mimmoc.1845>
- King, K. P. (1998). *A guide to perspective transformation and learning activities: The learning activities survey*. Philadelphia: Research for Better Schools.
- Kirshner, D., & Whitson, J. (Eds.). (1997). *Situated cognition: Social, semiotic, and psychological perspectives*. Mahwah, NJ: Lawrence Erlbaum.
- Kitsantas, A. (2004). Studying abroad: The role of college students' goals on the development of cross-cultural skills and global understanding. *College Student Journal*, 38(3), 441-452. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=14669496&site=ehost-live>
- Kline, R. R. (1993). The social practice of literacy in a program of study abroad. Ph.D. dissertation. The Pennsylvania State University, University Park.
- Kobayashi, M. (2016). L2 academic discourse socialization through oral presentations: An undergraduate student's learning trajectory in study abroad. *Canadian Modern Language Review*, 72(1), 95-121.
- Kolb, D. A., Boyatzis, R.E., & Mainemelis, C. (2001). Experiential learning theory: Previous research and new directions. *Perspectives on thinking, learning and cognitive styles*. R.J. Sternberg & L. Zhang (Eds.). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Kolb, D. A. and Fry, R. (1975) Toward an applied theory of experiential learning. In C. Cooper (ed.) *Theories of Group Process* (pp. 33-58). London: John Wiley.
- Kotluk, N. & Kocakaya, S. (2016). Researching and evaluating digital storytelling as a distance education tool in physics instruction: an application with pre-service physics teachers. *Turkish Online Journal of Distance Education*, 17(1), 87-99. doi: 10.17718 / tojde.59900.
- Kowarski, I. (2010, July 22). Colleges help students to translate the benefits of study abroad. *The Chronicle of Higher Education*. Retrieved from <https://www.chronicle.com/article/Colleges-Help-Students-to/123653>

- Kristof, K. (2018, January 26). What's behind the soaring cost of college textbooks. *CBS News*, Retrieved from <https://www.cbsnews.com/news/whats-behind-the-soaring-cost-of-college-textbooks/>
- Kurilovas, E. (2016). Evaluation of quality and personalisation of VR/AR/MR learning systems. *Behaviour & Information Technology*, 35(11), 998-1007.
- Lambert, J. (2010). *The digital storytelling cookbook*. Digital Diner Press. This work is licensed under the Creative Commons Attribution-NonCommercial-SharAlike 2.5 License. To view this license, visit: <http://creativecommons.org/licenses/by-nc-sa/2.5/>
- Lee, L. (2011). Blogging: Promoting learner autonomy and intercultural competence through study abroad. *Language Learning and Technology*, 15(3), 87-109. Retrieved from <http://llt.msu.edu/issues/october2011/lee.pdf>
- Lee, L. (2012). Engaging study abroad students in intercultural learning through blogging and ethnographic interviews. *Foreign Language Annals*, 45(1), 7-21.
- Lee, S. Y., Mott, B. W., & Lester, J. C. (2010). Optimizing Story-Based Learning: An Investigation of Student Narrative Profiles. *Intelligent Tutoring Systems Lecture Notes in Computer Science (2010)*, Vol. 6095/2010, 155-165. doi: 10.1007/978-3-642-13437-1_16
- Lefebvre, H. (1991). *The production of space*. Oxford, UK: Blackwell.
- Leontiev, A. N. (1978). *Activity, consciousness, and personality*. Englewood Cliffs, NJ: PrenticeHall.
- Lien, C. A., Warner, M. P., & Rathmell, J. (2017). Simulation for assessment of the practice of board-certified anesthesiologists. *Anesthesiology*, 127(3), 410-412.
- Loftus, G. R., & Loftus, E. F. (1983). *Mind at play: The psychology of video games* (Vol. 14). New York, NY: Basic Books.
- Logue, J. M., Lobscheid, A. B., Singer, B. C., & Klepeis, N. E. (2014). Pollutant exposures from natural gas cooking burners: A simulation-based assessment for Southern California. *Environmental Health Perspectives*, 122(1), 43-50.
- Machin, S., McNally, S., & Silva, O. (2007). New technology in schools: Is there a payoff? *The Economic Journal*, 117(522): 1145-1167. Retrieved from <https://doi.org/10.1111/j.1468-0297.2007.02070.x>

- Maslow, A. H. (1943). A theory of human motivation. *Psychological review*, 50(4), 370.
- Mayer, R. E. (2005). Cognitive theory of multimedia learning. In R. Mayer (Ed.), *The Cambridge handbook of multimedia learning* (pp. 31–48). Cambridge, MA: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9780511816819.004>
- McMahon, W. W. (2009). *Higher learning, greater good: The private and social benefits of higher education*. Baltimore, MD: The Johns Hopkins University Press.
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco: Jossey-Bass.
- Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education*, 74, 5-12.
- Mezirow, J. (2003). Transformative learning as discourse. *Journal of Transformative Education*, 1(1), 58-63.
- Mikal, J. P., & Grace, K. (2012). Against abstinence-only education abroad: Viewing internet use during study abroad as a possible experience enhancement. *Journal of Studies in International Education*, 16(3): 287–306. doi:10.1177/1028315311423108
- Miller, C.T. (2007). Enhancing web-based instruction using a person-centered model of instruction. *Quarterly Review of Distance Education*, 8(1).
- Mistretta, W. (2008). *Life-enhancing: An exploration of the long-term effects of study abroad*. ProQuest. Retrieved from <http://search.proquest.com/docview/304406369/13CB1AD923770281E36/3?accountid=10730>
- Nagengast, E. (Fall, 2017). An Assessment of Learning Outcomes in Short-Term Study Abroad and Human Rights Education. *International Research and Review: Journal of Phi Beta Delta Honor Society for International Scholars*, 7(1). Retrieved from <https://files.eric.ed.gov/fulltext/EJ1170663.pdf>.
- Neville, D. O., & Shelton, B. E. (2010). Literary and historical 3D digital game—based learning: Design guidelines. *Simulation & Gaming*, 41(4), 607–629. <https://doi.org/10.1177/1046878108330312>

- Norman, D. A. (1988). *The design of everyday things*. New York: Doubleday.
- Ohler, J. (2004). *Digital Storytelling in the classroom: New media pathways to literacy, learning, and creativity*. Thousand Oaks, CA: Corwin Press.
- Pagano, M., & Roselle, L. (2009). Beyond reflection through an academic lens: Refraction and international experiential education. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 18, 217-229.
- Paliokas, I & Sylaiou, S. (2016). The Use of Serious Games in Museum Visits and Exhibitions: A Systematic Mapping Study. *2016 8th International Conference on Games and Virtual Worlds for Serious Applications (VS-GAMES)*, 1-8.
- Palmer, N. (2015). Inverting the Object of Study: Recalibrating the Frame of Reference in Study Abroad Experiences. *Teaching Theology & Religion*, 18(1), 63-72.
- Passarelli, A.M., & Kolb, D.A. (2012). Using experiential learning theory to promote students learning and development in programs of education abroad. *Student Learning Abroad: What Students Are Learning, What They Are Not, and What We Can Do about It*. M. Vande Berg, R.M. Paige, & K. Hemming Lou (Eds.). Sterling, VA: Stylus Publishing, 2012.
- Patton, S. (2017, Apr. 27). The definitive guide to playtest questions. *Schell games*. Retrieved from <https://www.schellgames.com/blog/the-definitive-guide-to-playtest-questions>
- Pedersen, E. R., Skidmore, J. R., & Aresi, G. (2014). Demographic and Predeparture Factors Associated with Drinking and Alcohol-Related Consequences for College Students Completing Study Abroad Experiences. *Journal of American College Health*, 62(4), 244–254. Retrieved from <https://search-ebscohost-com.argo.library.okstate.edu/login.aspx?direct=true&db=s3h&AN=95961509&site=ehost-live&scope=site>
- Pellegrino, V. A. 1997. Speaking abroad: How interpersonal relations affect American students' use of Russian beyond the classroom. Paper presented at the annual meeting of the Modern Language Association, Toronto, Canada.
- Perry, L. G. (2011). A naturalistic inquiry of service-learning in New Zealand university classrooms: determining and illuminating the influence on student engagement: a thesis presented to the Faculty of the College of Education,

University of Canterbury, in partial fulfillment of the requirements for the degree of Doctor of Philosophy. University of Canterbury.

- Pew Research Center. (2010). Millennials: A portrait of generation next, <https://www.pewresearch.org/wp-content/uploads/sites/3/2010/10/millennials-confident-connected-open-to-change.pdf> (accessed September 16, 2019).
- Plass, J. L., Heidig, S., Hayward, E. O., Homer, B. D., & Um, E. (2014). Emotional design in multimedia learning: Effects of shape and color on affect and learning. *Learning and Instruction*, 29, 128–140. <http://dx.doi.org/10.1016/j.learninstruc.2013.02.006>
- Plass, J. L., Homer, B. D., & Kinzer, C. K. (2015). Foundations of game-based learning. *Educational Psychologist*, 50(4), 258-283. <https://doi.org/10.1080/00461520.2015.1122533>
- Plass, J. L., & Kaplan, U. (2015). Emotional design in digital media for learning. In S. Tettegah, & M. Gartmeier (Eds.), *Emotions, technology, design, and learning* (pp. 131–162). New York, NY: Elsevier
- Reiners, T., Wood, L.C., Teräs, M., Teräs, H., Gregory, S., Chang, V., Steurer, M., McDonald, T., & Fardinpour, A. (2018). Self-guided exploration of virtual learning spaces. In D. Wood & Sue Gregory (Eds.), *Authentic Virtual World*. (pp. 61-78). Singapore: Springer. (Original work published 2018).
- Reigeluth, C. M. (1999). The elaboration theory: Guidance for scope and sequence decisions. *Instructional design theories and models: A new paradigm of instructional theory*, 2, 425-453.
- Rhodes, G. (2019). Study abroad now more than ever. *Center for Global Education*, Retrieved from <http://globaled.us/now/globalawareness.html>
- Rieber, L., Barbour, M., Thomas, G., & Rauscher, D. (2009). Learning by designing homemade PowerPoint games. In C. T. Miller (Ed.), *Games: Purpose and Potential in Education* (pp. 23–42). https://doi.org/10.1007/978-0-387-09775-6_2
- Rogers, C. R. (1969). *Freedom to learn*. Columbus, OH: C. E. Merrill.
- Romano, A. (2018). *Transformative Learning: A Review of the Assessment Tools. 1*, 53–70.

- Salen, K., & Zimmerman, E. (2004). *Rules of play: Game design fundamentals*. Cambridge, MA: MIT Press.
- Sachau, D., Brasher, N., & Fee, S. (2010). Three models for short-term study abroad. *Journal of Management Education*, 34(5), 645-670. Retrieved from <https://doi-org.argo.library.okstate.edu/10.1177/1052562909340880>
- Schumann, P. L., Scott, T. W., & Anderson, P. H. (2006). Designing and introducing ethical dilemmas into computer-based business simulations. *Journal of Management Education*, 30(1), 195-219. Retrieved from <http://argo.library.okstate.edu/login?url=https://search-proquest-com.argo.library.okstate.edu/docview/195719373?accountid=4117>
- Schell Games. (n.d.). Retrieved January 2, 2020, from <https://www.schellgames.com>
- Shaffer, D. W. (2006). Epistemic frames for epistemic games. *Computers & Education*, 46, 223–234. <http://dx.doi.org/10.1016/j.compedu.2005.11.003>
- Sharpe, J. (2015 a). *Evolving disaster resilience through transformational learning. Presentation to the Interagency*. London: Resilience Learning Group. DOI: 0.13140/RG.2.1.4104.2402
- Sharritt, M. J. (2010). Evaluating video game design and interactivity. In R. Van Eck (Ed.), *Interdisciplinary models and tools for serious games*. (pp. 117-205). Hershey, NY: Information Science Reference.
- Sharritt, M. J., & Suthers, D. D. (2009). Video game representations as cues for collaboration and learning. *International Journal of Gaming and Computer-Mediated Simulations*, 1(3), 28–52.
- Shih, J.L., Jheng, S.C. & Tseng, J.J. (2015). A simulated learning environment of history games for enhancing players' cultural awareness. *Interactive Learning Environments*, 23(2), 191-211. Retrieved from <http://www.tandfonline.com/doi/full/10.1080/10494820.2014.997249?scroll=top&needAccess=true>
- Shively, R. L. (2010). From the virtual world to the real world: A model of pragmatics instruction for study abroad. *Foreign Language Annals*, 43(1), 105-137.
- Shute, V., Ventura, M., & Ke, F. (2014). The power of play: The effects of *Portal 2* and *Lumosity* on cognitive and noncognitive skills. *Computers & Education*, 80, 58–67.

- Siciliano, P., Jenks, M., Dana, M., & Talbert, B. (2011). The impact of audio technology on undergraduate instruction in a study abroad course on English gardens. *NACTA Journal*, 55(2), 46-53. Retrieved from <http://www.jstor.org/stable/nactajournal.55.2.46>
- Siegal, M. (1995). Individual differences and study abroad: Women learning Japanese in Japan. *Second Language Acquisition in a Study Abroad Context*, B. F. Freed (ed.), 225-244. Amsterdam and Philadelphia: John Benjamins.
- Spence, I., & Feng, J. (2010). Video games and spatial cognition. *Review of General Psychology*, 14, 92–104.
- Squire, K. D., Barnett, M., Grant, J. M., & Higginbotham, T. (2004, June). Electromagnetism supercharged! Learning physics with digital simulation games. Paper presented at the International Conference on the Learning Sciences (ICLS), Santa Monica, CA.
- Squire, K. D. (2008). Video games and education: Designing learning systems for an interactive age. *Educational Technology*, 48(2), 17–26.
- Squire, K. (2011). *Video games and learning: Teaching and participatory culture in the digital age. technology, education—Connections (The TEC series)*. New York, NY: Teachers College Press.
- Standards Development Organization. (2019). Standards of Good Practice for Education Abroad. (5th ed., 2015), *The Forum on Education Abroad*. United States Department of Justice and Federal Trade Commission. Retrieved from <https://forumea.org/resources/standards-of-good-practice/>
- Steinkuehler, C., Squire, K., & Barab, S. (Eds.). (2012). *Games, learning, and society: Learning and meaning in the digital age*. Cambridge, MA: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9781139031127>
- Strauss, W., & Howe, N. (2000). *Millennials rising: The next great generation*. New York: Random House Digital, Inc.
- Szczuka, J. M., Biles, M., Plass, J. L., & Krämer, N. C. (2013, September). “I wish it was real, so I could squeeze it” *The emotional response of children towards videogame-characters: A Cross-Cultural comparison of Germany and the USA*. Paper presented at the 8th Conference of the Media Psychology Division of the German Psychological Society, Würzburg, Germany.

- Taguchi, N., Xiao, F., & Li, S. (2016) Assessment of study abroad outcomes in Chinese as a second language: gains in cross-cultural adaptability, language contact and proficiency, *Intercultural Education*, 27:6, 600-614, doi: 10.1080/14675986.2016.1217126
- Titarenko, L. & Little, C. B. (2017). International cross-cultural online learning and teaching: Effective tools and approaches. *American Journal of Distance Education*, 31(2), 112-127, doi: 10.1080/08923647.2017.1306767
- Trueit, D. (Ed.). (2012). *Pragmatism, post-modernism, and complexity theory: The "fascinating imaginative realm" of William E. Doll, Jr.* New York, NY: Routledge.
- Um, E., Plass, J. L., Hayward, E. O., & Homer, B. D. (2012). Emotional design in multimedia learning. *Journal of Educational Psychology*, 104, 485–498. <http://dx.doi.org/10.1037/a0026609>
- University System of Georgia. (2020). Study abroad handbook [PDF file]. Academic Affairs Division: International Education. Retrieved from https://www.usg.edu/international_education/study_abroad/study_abroad_handbook
- Vande Berg, M. (2003). The case for assessing educational outcomes in study abroad. In G.T. Hult & E.C. Lashbrooke (Eds.), *Study abroad: Perspectives and experiences from business schools* (pp. 23-36). Oxford: Elsevier.
- Vande Berg, M. (2009). Intervening in students learning abroad: A research-based inquiry. *Intercultural Education*, 20 (supplement 1-2), 15-28.
- Vande Berg, M., Paige, R. M., & Hemming Lou, K. (2012). *Student learning abroad: What our students are learning, what they're not, and what we can do about it*. Sterling, VA: Stylus Publishing, 2012.
- Van Eck, R. N. (2010). Interdisciplinary models and tools for serious games; emerging concepts and future directions. *Scitech Book News*, 34(2), Retrieved from <https://archive.org/details/InterdisciplinaryModelsAndToolsForSeriousGamesEmergingConceptsAndFutureDirections>
- Vosinakis, S. (2017). Digital Characters in Cultural Heritage Applications. *International Journal of Computational Methods in Heritage Science (IJCMHS)*, 1(2), 1-20. doi:10.4018/IJCMHS.2017070101

- Wallace, J. A. (1993). Educational values of experiential education. *Beyond Experience: An Experiential Approach to Cross-Cultural Education*. T. Gochenour (Ed.). 2nd ed. Yarmouth, ME: Intercultural Press, 11-16.
- Walther, B. K. (2003). Playing and gaming: Reflections and classifications. *The International Journal of Computer Game Research*, 3(1). Retrieved from <http://gamestudies.org/0301/walther/>
- Wansink, B., Akkerman, S., Zuiker, I., & Wubbels, T. (2018). Where does teaching multiperspectivity in history education begin and end? An analysis of the uses of temporality. *Theory & Research in Social Education*, 46(4), 495-527, doi: 10.1080/00933104.2018.1480439
- Watson, J., & Wolfel, R. (2015). The intersection of language and culture in study abroad: Assessment and Analysis of Study Abroad Outcomes. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 25, 57.
- Whalen, B. (2008). The management and funding of US study abroad. *International Higher Education*, 50. Retrieved August 1, 2008, from http://www.bc.edu/bc_org/avp/soe/cihe/newsletter/Number50/p15_Whalen.htm
- What is GBL (Game-Based Learning)? (2013, April 23). *EdTechReview*. Retrieved from <https://edtechreview.in/dictionary/298-what-is-game-based-learning>
- Wilkinson, S. (1998). Study abroad from the participants' perspective: A challenge to common beliefs. *Foreign Language Annals*, 31(1), 23-39.
- Williams, T. R. (2005). Exploring the impact of study abroad on students' intercultural communication skills: Adaptability and sensitivity. *Journal of Studies in International Education*, 9(4), 356-371.
- Williams, T. R. (2009). The reflective model of intercultural competency: A multidimensional, qualitative approach to study abroad assessment. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 18, 289-306. Retrieved from <https://eric.ed.gov/id?=EJ883704>
- Wong, E. D. (2015). Beyond "It was great"? Not so fast! A response to the argument that study abroad results are disappointing and that intervention is necessary to promote students' intercultural competence. *Frontiers: The Interdisciplinary Journal of Study Abroad*. 26, 121-135.
- Woolf, M., Battenburg, J., & Pagano, M. (2009). Study abroad changed my life and other problems. A presentation at the annual conference of the Forum on

Education Abroad, Portland, OR. Retrieved from
<https://www.insidehighered.com/news/2009/02/20/study-abroad-changed-my-life-and-other-problems>

Writers, S. (2018, July 2). The Best Study Abroad Programs of 2019. Retrieved September 30, 2019, from BestColleges.com website:
<https://www.bestcolleges.com/features/best-study-abroad-programs/>

Zarulli, V., Barthold-Jones, J., Oksuzyan, A., Lindahl-Jacobsen, R., & Vaupel, J. W. (2017). *Women survive severe famines and epidemics better than men*. Abstract from 28th International Population Conference of the International Union for the Scientific Study of Population, Cape Town, South Africa.

Zhu, E. (2010). Lecture capture: A guide for effective use. *Center for Research on Learning and Teaching*, (27). doi:10.1.1.388.6801

Appendix A: Project Blueprint

Build Your Own Study Abroad Educational RPG

A How-To Guide

by

Stephanie L. Bundy

Introduction

This blueprint is designed to help you, the educator or facilitator/designer, build a historically based digital Role-Playing Game (RPG) to be played by students attending a general education, short-term study abroad program. Most commonly in a study abroad program, the designer and educator are one in the same; however, should these be two separate individuals, the designer and educator must work closely together to figure out a common vision for the game in areas such as course delivery style, learning objectives, and game pacing. The blueprint is not intended to produce a completely perfect product upon a single walkthrough of the blueprint, but to supply the skeleton of a game. It will rely on you, the designer, to return to the game and continuously perfect the product. This role-playing game will be played in tandem with excursion itinerary and can be paced alongside the tour schedules and activities the program may have already planned for students. It can be built as an assessment tool or operate as an icebreaker to acclimatize students to the culture of the host country. Essentially, this blueprint can be stylized to fit the needs of the program and host culture chosen for the study abroad.

There are five stages to the blueprint, all of which are interdependent. They must be developed in this order, but the design process can be iterative with multiple returns to previous stages when new feedback gives rise to editing. These stages include administering a survey to students, developing a historical timeline, developing a fictional narrative, building the digital architecture of the game, and playtesting for critique. The main object of the Role-playing game, no matter the host country or

study abroad program, is simple: to maintain the survival of the main character by what historical and cultural means are available to the main character (played by the student).

The student will potentially undergo most of the same historical and cultural challenges that individuals from the host country would have experienced during the predetermined time period for which the game is set. While accuracy of the game to the historical time period cannot be fully guaranteed, students can participate in an experience as close to authentic as any digital RPG can be with your help! Due to this, the students will hopefully develop a deeper understanding of the host country's culture, people, and rich history. So, let's get started!

Stage 1: Needs Assessment and Analysis

Step 1: Administer the Survey

This survey should be administered either at the beginning of the mandatory pre-departure meeting or via the Learning Management System for the courses. Making this survey available digitally may reduce the steps involved in analysis but may be perceived as more formal than intended to the students. This is up to the discretion of the designer who will have a better impression of the student demographic. The individual historical or cultural events placed into the instrument are at the educator's discretion, but there should be enough of these from all periods of the host country's history to be able to comprehensively address the socio-historical identity of the host country.

Table 1*Blueprint of Needs Analysis Survey – Demographic Data*

Age	Birthday: Day, Month, Year
Place of Birth	City, State
Gender	Male, Female, Other, Prefer not to say
Countries visited in the Americas: If so, which ones?	#,
Countries visited overseas: If so, which ones?	#,
Have you ever traveled without your family?	Yes/No
Have your parents traveled out of the country?	Yes/No

Table 2*Blueprint of Needs Analysis Survey – Cultural/Historical Familiarity*

How familiar are you with the following historical or cultural concepts about <u>host culture?</u>	<u>4 = Very Familiar</u>	<u>3 = Somewhat familiar</u>	<u>2 = unsure</u>	<u>1 = somewhat unfamiliar</u>	<u>0 = not at all familiar/ never heard</u>
<u>Cultural Event A</u>	4	3	2	1	0
<u>Cultural Event B</u>	4	3	2	1	0
<u>Cultural Event C</u>	4	3	2	1	0
<u>Cultural Event D</u>	4	3	2	1	0
<u>Cultural Event E</u>	4	3	2	1	0
<u>Historical Event A</u>	4	3	2	1	0
<u>Historical Event B</u>	4	3	2	1	0
<u>Historical Event C</u>	4	3	2	1	0

<u>Historical Event D</u>	4	3	2	1	0
<u>Historical Event E</u>	4	3	2	1	0

Table 3

Blueprint of Needs Analysis Survey –Learner Interest

<u>About which of</u> <u>these events would</u> <u>you be most</u> <u>interested in</u> <u>learning?</u>	<u>4 = Very</u> <u>Interested</u>	<u>3=</u> <u>Somewhat</u> <u>interested</u>	<u>2=</u> <u>unsure</u>	<u>1= somewhat</u> <u>disinterested</u>	<u>0= not at</u> <u>all</u> <u>interested</u>
<u>Cultural Event A</u>	4	3	2	1	0
<u>Cultural Event B</u>	4	3	2	1	0
<u>Cultural Event C</u>	4	3	2	1	0
<u>Cultural Event D</u>	4	3	2	1	0
<u>Historical Event A</u>	4	3	2	1	0

<u>Historical Event B</u>	4	3	2	1	0
<u>Historical Event C</u>	4	3	2	1	0
<u>Historical Event D</u>	4	3	2	1	0

What are your
impressions of host
culture's people
and history, if any?

What are your
impressions of host
culture's people
and history, if any?

Based on popular
portrayals in media
and in conversation,
what do you think
the host culture's
people are like?

Step 2: Compiling/ Coding the Data

Once results are in, calculate the average and standard deviation of materials.

Table 4

Compiling: Calculation of the Survey Results for Host Culture Event

Familiarity/Interest

Student Familiarity/Interest	Average	Standard Deviation
Cultural Event A		
Cultural Event B		
Cultural Event C		
Cultural Event D		
Historical Event A		
Historical Event B		
Historical Event C		
Historical Event D		

Next, code the qualitative data from your surveys into Table 5. It might help to create a wordcloud to quickly view what words were most readily used and in repetition by

your students. In the wordcloud, exclude any non-principal words like articles, conjunctions, and interjections. The principle words that are most helpful include nouns, adjectives, adverbs, and verbs. Designers may enter the most common words or terms used by the students and based on the context around which the word has been used, indicate the accuracy of student views of the host country. A + indicates accuracy; the student has used the term or concept accurately. A - indicates inaccuracy; the student has used the term or concept inaccurately. A = indicates that the student view is unclear given the context and could indicate passing familiarity with a possibility of ignorance. See Table 6 for an example of this process.

Table 5

Coding: Open-Ended Survey Results Attributed to Particular Cultural/Historical Events

Cultural Event A	Cultural Event B	Cultural Event C	Cultural Event D
“Keywords/phrases used by students”			
(-, +, or =)			
Historical Event A	Historical Event B	Historical Event C	Historical Event D

“Keywords/phrases used by
students” (-, +, or =)

Table 6

Coding: Example of Coded Open-Ended Survey Results for Ireland Study Abroad

Mythology/Folklore (Cultural Event A)	Irish Potato Famine (Historical Event A)	Poetry/Music/Singing (Cultural Event B)	Easter 1916 Uprising (Historical Event B)
“Leprechaun” -	“Poverty” =	“Ed Sheeran” =	“Terrorism” -
“Fairies” +	“Immigration to America” +	“Busking” -	“Neutrality in WWII”-
“Rainbows” +	“Came from England”-	“happy people” =	“Nazis” -

The results of the coding that will assist in the game are areas of ignorance (=) and areas of negative understanding (-). The more of these in a particular category, the

more influence this cultural event or historical event should have in the eventual game.

Step 3 of Stage 1: Processing into Game Elements

Areas of low comprehension are given more attention in the game design and their appropriate placement depends on whether it is a textual or critical thinking knowledge gap. Develop a hierarchy from high to low importance based on the information in the student responses. This can be brainstormed out by answering the following questions (see Table 7):

Table 7

Brainstorming Questions and Final Conclusions for Educator Based on Survey

Results

-
- What is the area of most knowledge?
 - What is the area of least knowledge?
 - Where does the majority of knowledge about the country come from? Is this an accurate source for information about the country?
 - How will student learning unfold if these knowledge gaps are not intervened upon?
-

-
- How would you prioritize the choices in events based on the student responses?
 - Based on your answers to the previous questions along with the results of the surveys, what is the time period in which your historical RPG should take place? why?
-

From here, narrow down the exact time frame in the host country's history in which the simulation will be set. This time frame should be an area of significant historical and cultural identity for the host country, a time that still is relevant to the contemporary time and culture exhibited while students are studying abroad so as to be covered by any tour guides or activities in the country. Once justification for a particular historical time period is established, begin the process of developing a historical timeline.

Stage 2: Develop Historical Timeline

To properly develop the historical timeline, identify significant events from the overall time period that would most strongly answer to the student gaps in knowledge or emphasize a certain thematic message the students should pick up. Filling out the table below in conjunction with the host country you are visiting can benefit the historical timeline and help brainstorm plot points for the narrative of the RPG (see Table 8).

Table 8

Historical Timeline Aligned with Student Knowledge Gaps

	Theme/Gap	Theme/Gap	Theme/Gap
Event	x	x	
Event		x	
Event	x		x
Event	x		

You may also find the filled-out example of the table (see Table 9) for the Irish Potato Famine below.

Table 9*Example Ireland Historical Timeline Aligned with Student Knowledge Gaps*

	Laissez Faire Economic Philosophy (Theme/Gap #1)	Proliferation of the Potato Blight (Theme/Gap #2)	English/American Racism/Bias against Irish (Theme/Gap #3)
Crops begin to fail (Historical Event #1)	X	X	

Parliamentary	X	
Response		
(Historical Event #2)		
Prices Go up for	X	X
Sustainable Goods		
(Historical Event #3)		
Mass emigration	X	X
(Historical Event #4)		

To ensure that the material is backed up with textual evidence, the following table can help unite the timeline to the historical context students should be able to acquire from the RPG (see Table 10). This should be filled out for the majority of events the designer wishes to incorporate into the RPG so as to already have collected the source material to be implemented later during the architectural stage.

Table 10

Broken Down Historical Data to be Incorporated in the RPG

Historical Event:	Data	Primary/Secondary Sources Used
Who was involved?		

What happened?

When did it happen?

Where did it happen?

Why did it happen the way it
did?

What is the contemporary
significance of this event?

Stage 3: Fictional Narrative

The fictional narrative you construct should be set in the chosen study abroad location, but during a time period that is of great significance to the modern era. Students should come out of the story being able to see the repercussions in the current era's culture and landscape. Your characters should be the ones most affected by the time period's events or ones who are major actors in the historical time period. Developing a fictional storyline is relatively easy when you have a historical timeline from which to work. You can pull from primary sources to help. Using narrative from individual people's lives can also lend credence to the believability of your fiction. The basic structure of a narrative should follow the Freytag pyramid below:

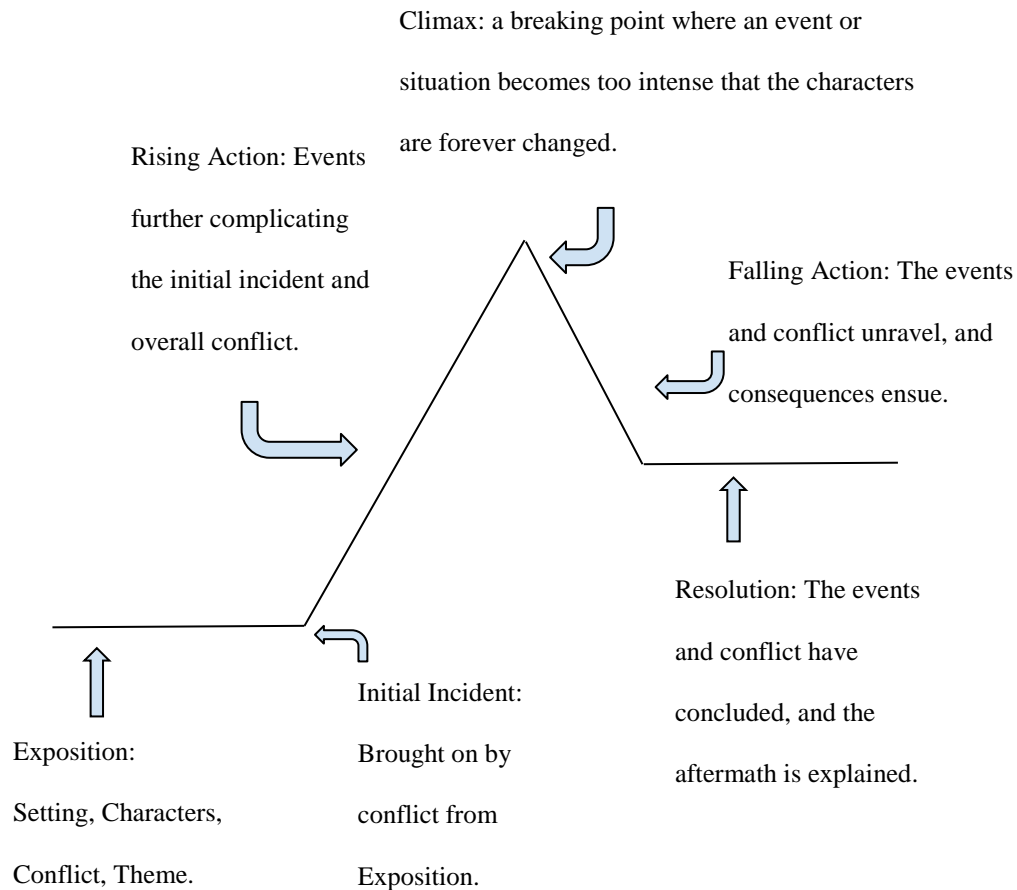


Figure 1. Freytag's Pyramid explained.

So, you will need to construct all of the areas based on what you have decided from previous steps. Don't worry about the fine details as these can be ironed out later or during revisions. Take a look at the following brainstorm for the Irish Potato Famine RPG.

Exposition.*Setting*

Killarney, Ireland. 1840-1852

Characters

Connor* - The protagonist. Early 30's. Farmer who has taken over the plot of land once tended by his father and forefathers. Catholic with some literacy, but not efficient.

Shannon - Connor's wife. Early 30's. Homemaker and mother of two. One child is newborn son, named Angus, and the other is a two-year-old, daughter named Rachel. Catholic and illiterate.

Landowner - British nobleman who was given this land by the King to drive out the Irish. Protestant and mostly absent from the manor.

Various supporting characters - Newspaper editor, Banker, tax collector, Parliament members, and the gentleman of the manor (proxy between landowner and the workers).

Motivations

To make an honest livelihood for Shannon and the children that they may all do whatever they want with their lives, free of most societal restrictions and debt.

Theme/Tasks

Theme: The difficulty or discontinuity of farming and its impact on survival.

Primary Task: Keep a safe and comfortable home for Connor's family.

Secondary Task: Grow enough potato crop yield to satisfy the landowner with Connor's tenancy of the farmland.

Tertiary Task: Maintain ethical farming techniques that have been passed down for generations.

Tertiary Task: Keep enough of the crop yield to help sustain the family.

Tertiary Task: Put a little of the profit away to maintain expenses during troubled times.

Conflict

Man versus Society - Taxes, resources, and rent needed to maintain the family.

Man versus Nature - The potato blight, seasons, rainfall, fertilizer.

Rising Action.

Scenario 1 - Connor has lost more than 50% of his crop yield leading to an inability to make enough money to pay the landowner. He will have to make a choice:

- a) Tell the gentleman of the house the truth and hope he has mercy.
- b) Attempt to raise the funds by raising the cost of the yield at market.
- c) Cut rations from the family just until the debt is made up.

Results

- a) Connor tells the gentleman of the house the truth and begs him to reason with him. Since this is the first offence and the family has been well credited for generations, he is willing to extend the time needed to make up the missing crop yield. He warns, however, that the yield must be double in the next harvest.
- b) Connor raises the crop yields at market by a few increments hoping it will be barely noticeable. The people accuse him of trying to steal from the poor, honest people of Ireland, his neighbors. He was able to make up 25% of the deficit but is assured that many people refuse to do business with him again.
- c) Connor cuts the rations for his family. While everyone was able to eat, the eldest continues to make complaints that she is still hungry every night.

Scenario 2 - Connor's eldest has grown ill due to lack of healthy food. Crop yield 1/4 less than usual and Connor's monthly rations are already cut in half. Money is needed for rent, taxes, and food. Currently the household can maintain for seven more days, but you need to come up with the money to pay the doctor, supplement the rations, and pay the taxes.

- a) Make the woman work! Bring Shannon with you to the field and attempt to harvest double the amount of potatoes to make up for the gap.
- b) Eat underdeveloped potatoes and grain to make up the difference in nourishment.
- c) Go to a British owned soup kitchen for nourishment.

- d) Join a public works labor force (work a second job) to make up the deficit.

Results

- a) The extra traffic in the fields causes the blight to spread to previously healthy portions of the crop, causing further damage and lower yields than before. Additionally, lack of supervision for the newborn and three-year-old has caused the sickness to spread to the newborn. The likelihood of a newborn surviving during time was only 25%.
- b) The underdeveloped potatoes and grain are coarse and cause intestinal problems further inhibiting farm work and nourishment for the family. Your current conditions are now only sustainable for three days.

Britain has just passed the Extended Poor Law, “shifting the cost of feeding the starving masses and the maintenance of poorhouses to the Irish landowner. This, in effect, made eviction of tenant farmers... an efficient way for the landowner to lower his tax (poor rate). Between 1847 and 1851, the eviction rate rose nearly 1000%” (Cantwell, 2017, p. 382). Because you cannot work, your family is evicted, malnourished, and without money.
- c) “Britain did open up soup kitchens, but of 2000 planned, only half were in operation in 1847” (Cantwell, 2017, p. 382). The soup kitchen in Cork is open and was able to sustain you for two more days.
- d) “In an effort to earn some money, I joined a public works labor force, sponsored by the British, building roads and digging ditches that

seemed to have little purpose. It did pay 10 pence per day (12 pence equal 1 shilling), almost double my salary as a potato farmer. By August 1846, many of my countrymen had joined me in this endeavor, as the labor force increased fivefold to 560,000” (Cantwell, 2017, p. 382). You were able to more than make up the deficit and have an extra 2 shillings’ profit, but you must use this for food.

More scenarios like this would be needed that directly address workhouses, weight loss and malnutrition, parliamentary action and taxes, racism, etc.

Climax.

After surviving all of the misfortune brought on by the Famine and the representatives’ reactions to it, in 1847, the “Extended Poor Law” was enacted which shifted “the cost of feeding the starving masses and the maintenance of poorhouses to the Irish landowner.” In response and to avoid paying the extra tax, Connor’s landowner hired a crew of men to come in and destroy all the tenant houses on the property including Connor’s. Connor’s family and all the neighbors who might assist are homeless. What should he do?

- a) Use the small amount of money Connor has saved to gamble and try to grow the money into enough for the family to sail to America.
- b) Speak with the landowner and beg for assistance.

- c) Employ Connor in the workhouses which requires a move to the city and a few days of begging on the streets of Dublin.

Falling Action or Results of the Climax.

- a) Connor is not literate enough to read the rules of the gambling hall and gets taken advantage of. He loses his savings. All the family can do now is beg on the streets.
- b) Connor, frustrated with his position in life, confronts the landowner and this grows into an argument. Inevitably, Connor was able to convince the landowner to pay for his family's passage to America, first to Liverpool and eventually to New York (Cantwell, 2017).
- c) The workhouses are already overfilled. There is not enough work to go around. Connor is immediately separated from Shannon, Angus, and Rachel. He is assured that he will see them again if he continues to work hard.

Resolution.

- a. Historically backed information about poverty/begging.

“In general, the poor were deemed to be masters of their own destiny, with poverty regarded as being a self-induced condition caused by laziness, improvidence and excessive reproduction” (Kinealy, 2015).

- b. Historically backed information about the great migration to America.

“Throughout the Famine years, nearly a million Irish arrived in the United States. Famine immigrants were the first big wave of poor refugees ever to arrive in the U.S. and Americans were simply overwhelmed. Upon arrival in America, the Irish found the going to be quite tough. With no one to help them, they immediately settled into the lowest rung of society and waged a daily battle for survival” (History Place, 2000).

c. Historically backed information about the Irish workhouses.

“The inmates’ day started at 6.00 am each morning. After prayers, roll calls, cleanliness inspection, they were given their breakfast of stirabout and milk in tin mugs and plates. They were not permitted to talk at table. Afterwards they were set to work, men and boys breaking stones, which were sold to road-making contractors 1s.4d. per ton. Women and girls worked in Laundrys [sic] and sewing rooms” (Corrigan, 1976, p. 64).

In general, you will want to have at least one scenario in which your main character survives or otherwise succeeds against all odds and then you need one worst-case scenario. It would benefit the game to have a middle ground scenario in which the character is neither considered a success or a failure. Also, the more resolution possibilities you develop, the more narrative threads that must be developed, so it might be good to start off with simple three possible outcomes of the story. You can back track later and add more should you feel like it. More depth provides more opportunities for the students to get immersed and invested but can

create more opportunities for bugs or errors in the game. Therefore, start small and add more narrative threads to the final product one at a time. Once you feel that you have enough supportive detail to constitute a complete narrative, you are ready to move forward to the Architecture stage.

Stage 4: Architecture - RPG Maker MV Tutorial

Now it is time to start implementing your historical material along with your narrative thread. You may download a trial version of RPG Maker MV or pay for the full version in order to follow this tutorial. The download can be found online at the website www.rpgmakerweb.com. Anything herein written inside quotation marks should be understood to be the text entered. The quotation marks should not be included when typing into the game.

Step 1: Making the Map

- Launch RPG Maker MV.
- Click File> New Project
- Name the File “Study Abroad RPG”
- Name the Game whatever specific title your RPG game will be called (The Irish Potato Famine RPG will be titled *Blight*).

From here, the program will take a moment to load materials needed. Then you will see a green plane with a faded character avatar in the middle like so:

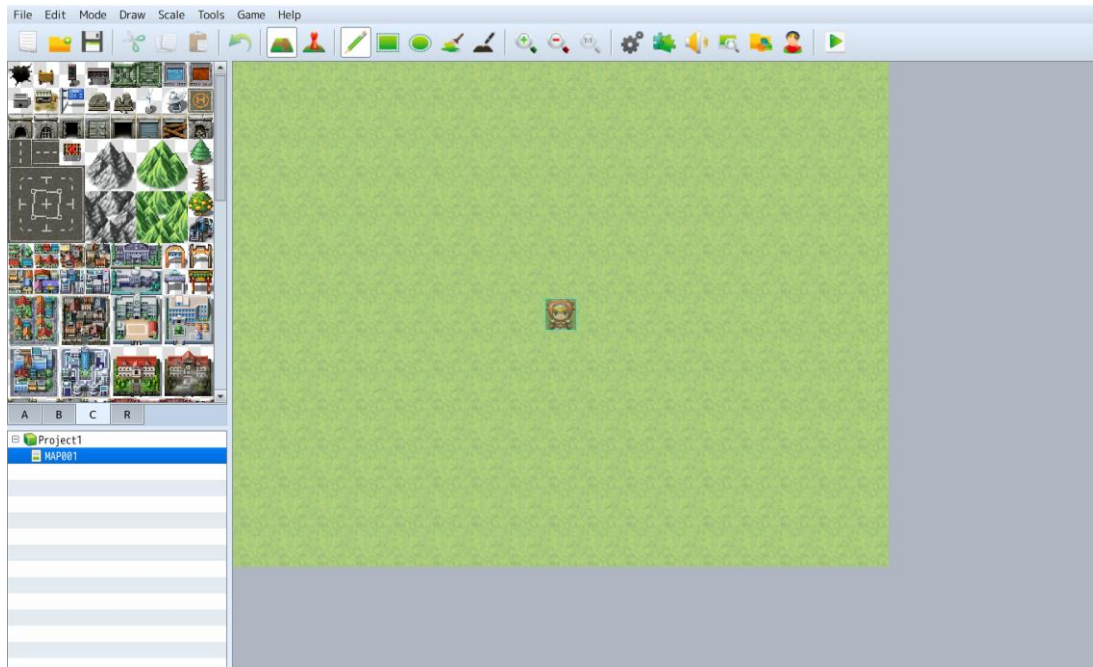




Figure 2. Screenshot of starting screen for RPGMaker MV.




On the left-hand navigation pane, you will find trays A, B, C, and R with pre-loaded images meant to be used to decorate this green plane. Tray R is for uploaded images you have created that you would like implemented into the game. You will need to decorate this plane with the environment that most closely resembles your study abroad location and the setting brainstormed in the previous stages.

This plane also serves as an overview (“overworld”) of any other smaller maps you might like to use. For instance, if you place a building into the plane somewhere, you have the option to open a new map that magnifies the castle into the entire scope of the plane which simulates perhaps your character entering the castle.

The character would have to walk up to it, and you would need to trigger an event which is explained in Step 2 of this tutorial.


In order to begin decorating your plane, take a look at the top toolbar and

make sure the landscaping icon  and the pencil  are selected. From this point, you may click on any of the images that you wish to incorporate into your plane from the left hand navigation pane and trays A-C. Once you have selected an image you would like to see represented in your grassy plane, hover the mouse over the plane and click on the desired areas to populate the images onto the plane.

If you select the rectangle  or circle  instead of the pencil icon and if you click on an image from the tray, what will begin to appear on the plane when you click on it will be representations of that image in either rectangular or circular form. The paintbrush  to the right of the circular icon will perform the functions of a bucket fill, which means that the program will fill up any designated space on the plane with the chosen image.

You may want to create other maps that can expand areas found in small form on the overview map.



At any point, you can test out the gameplay of your work so far by clicking

the play  icon on the far-right side of the toolbar. The game will load, and you

can use the directional buttons on the keyboard to manipulate the movement of the avatar character. When you are satisfied with the placement of the scenery on the plane, and you run a playtest, you can see the plane has now formed one map for the game. The RPG can have multiple maps comprising the game. At this stage, however, all the game has is an avatar and a single map with scenery. This forms the base layer to begin the game building process.

Step 2: Creating an NPC or Event

For every RPG, there must be areas in which the avatar can wander and discover. When an avatar comes across a person or item that contributes to the story progression, this is known as an event. Events are not necessarily negative. Some events can be used to create dialogue between your character and other non-playable characters (NPC's) in the game. Other times, an event can help fill in the holes of the narrative. An event can also trigger your character to move to a different map such as going inside of a building or moving to a different town. These events could be most of the forms of conflict derived from the narrative stage of the game design. To create an event, you will need to hover the mouse over the top toolbar and instead of

clicking on the landscaping icon , click on the event icon  which will change the plane into a grid. Along the lines of the grid, you may choose any tile that you would like to set up your event. When you find the tile in which you'd like to place an event, double-click it with your mouse and an Event Creator window will appear.

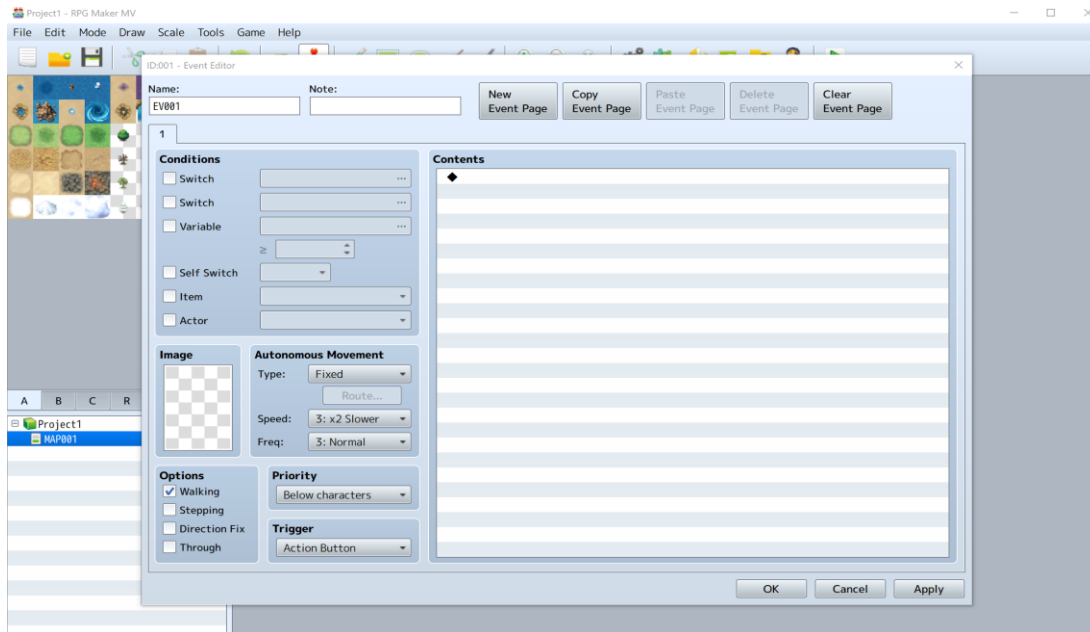


Figure 3. Screenshot of the Event Creator window in RPGMaker MV.

In the Event Creator window, rename the event to something that resembles the initial RPG conflict from your storyline. Change “EV001” under “Name” to the desired label and to differentiate it from other events that will inevitably be created for the game.

Conditions: This section of the Event Creator window articulates the certain conditions in the game required for the event to be triggered.

Autonomous Movement: This allows the event trigger to either be fixed or to roam in a designated pattern so that your avatar must chase it to trigger said event. (For instance, a player chases and captures an animal to start farming with them.)


Priority: This sets the orientation of the triggered event in the game plane relative to the player. More often than not, the priority should be set to “Same as characters.” “Below characters” means that the player avatar must be standing on top of the section to activate the trigger.

Trigger: This sets the action needed from the player/avatar in order to trigger the event. The “Action Button” selection will trigger the event when the player/avatar presses an action button such as pressing enter or keystroke-Z on the keyboard. The “Player Touch” option triggers the event the instant a character avatar touches the section.

Contents: This is the actual text or kind of triggered event that can happen and how it will present itself on the plane. double-click on the black diamond to open up the options.

To Create an NPC Event:

- Make sure the event icon is selected.
- Double-click on the desired position in which you would like an NPC to be situated on the desired map. This will open up the Event Creator window.
- Rename the event to an NPC’s name from your storyline.
- Select the Trigger preference. (“Player Touch,” “Action Button,” etc.)
- For Priority, choose “Same as Characters” so that the character avatar remains on the same plane with the NPC rather than on top or below the person in order to trigger the event.

- Double-click the grey and white checkered space below “Image” and choose what you want the NPC to look like from a set of options.
- Once you have chosen your desired image to represent the NPC, click “OK.”
- Click on the black diamond below “Contents” on the Event Creator window.
This will open an “Event Commands” window with a list of all the choices that can be added to the NPC. Example choices include “Show text” or “Show Choices.” There are three trays of options to choose from for NPC commands. For the purposes of tutorial, choose “Show Text.” This command will open a “Show Text” window which builds a dialogue between the NPC and the character avatar.
- Enter the desired text you wish the NPC to say to the character avatar in the “Text” field.
- Customize the look of the NPC’s zoomed in face by double-clicking on the grey and white checkered box below “Face.”
- Customize the orientation appearance of the dialogue box in your game by selecting preferences in “Background” and “Window Position.”
- Click the “Preview” button to view what it will look like in the game.
- Press “OK.”
- The Event should be displayed on the map. Click on the play icon  to preview the NPC encounter in game mode.

★ Another event option used in most RPG's is creating an event requiring characters to make choices. To do this, follow the same steps as above. If the choice is presented from a person, choose a person from the image database. However, you may also choose inanimate objects or animals to initiate the choice as well. Follow all the steps above.

- The text added to the "Show Text" window should be written to initiate a choice. For example: "Do you like pizza or pasta?"
- Click "OK" to go back to the Event Creator window.
- Click the black diamond under "Contents" again.
- Instead of "Show Text", choose "Show Choices." This will open the "Show Choices" window.
- Enter in six possible choices that are relevant to your storyline.
- Click "OK" to return to the Event Creator window. You should now see your choices populating the "Contents" section of the window.
- There will appear a black diamond under every choice entered under "Contents." Double-click on the first black diamond. This will open the event command window. You may now choose what happens to the character if this initial choice is selected by the character.

Depending on the storyline, this could be more dialogue (click "Show Text" under Message) or raising skill level (click "Change Skill" under Actor) or even to lose the game (click "Game Over" under Scene Control)

Multiple Maps. The first map that appears in RPGMaker is what is known as an overview map. You can create more “zoomed in” maps for specific places in the overview map.

- When viewing the overview map. On the lower left pane of the program, there is a green cube with the title of the game created at the beginning of the tutorial. Right click this and click “New.”
- Enter in identifying information in the Map Properties window that pops up.
- Under Tileset, select the type of map you would like.
- You may even specify how large or small this map should be.
- When you are finished, click “OK.”
- Now you have two maps!
- Make sure to decorate the new map in images befitting its environment (i.e. house would have walls and floor and ceiling with furniture while caves would have rocks and pools.)
- You can even organize the maps as folders with smaller maps contained by larger maps as illustrated by the following screenshot:

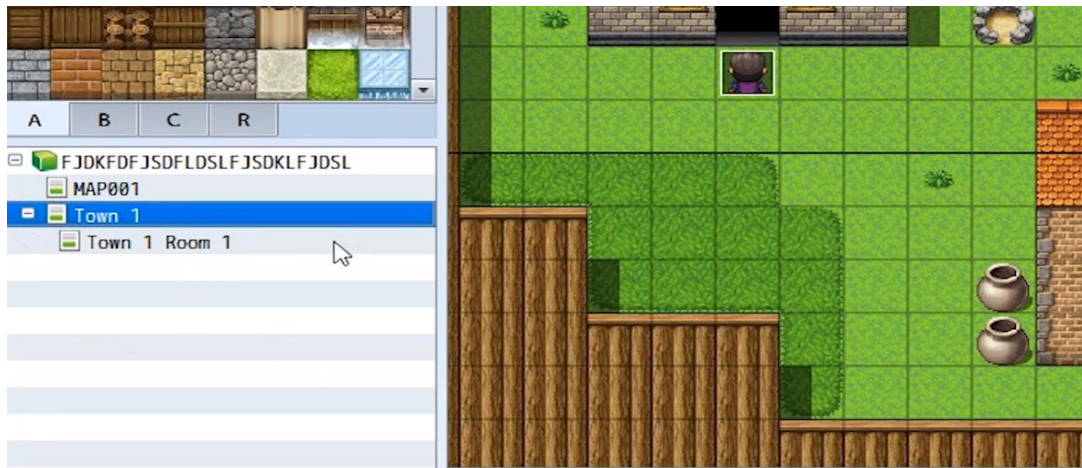



Figure 4. Zoomed-in screenshot of the map layers in RPGMaker MV.

★ If you are moving your character avatar from the overview map to a more specific map you have created (or if you simply want the character to enter a building or cave already created), you will need to perform the following functions:

- Select the overview map first.
- Make sure that you have the event icon  selected from the top toolbar.
- Move your mouse to the point on the overview map that you would like to see the movement trigger from.
- Double-click that section. This will open the Event Creator window.
Rename this event to something recognizable to the game layout.

- Set the Priority to “Below Characters” which will require the avatar to move on top of the location in order to trigger the event.
- Set the Trigger to “Player Touch” which will trigger the map movement the moment the avatar touches the point chosen for the event trigger. “Action Button” may also be used. If this is selected, the avatar must be placed on top of the location AND press the action button to move maps.
- double-click on the black diamond below “Contents.”
- Click to tray 2 and choose “Transfer Player” under the “Movement” category. This tells the program that you want this event to move the player to a new map. A “Transfer Player” window will open.
- Click on the drop-down under “Direct Designation” and choose the map to which the avatar should be moved.


To make the NPC’s move:



Perhaps an NPC with which you wish your character avatar to interact is a villager, worker, or otherwise a moveable human being or animal. If that is the case, you can provide a closed circuit of movement the NPC can follow until such time as the avatar interaction occurs.

- Follow the previous steps to create an NPC and to set up event details of interaction with that NPC (dialogue, choice options, etc.)
- From the map where the NPC is present, double-click on the NPC. This will launch an Event Creator window.

- In the Event Creator window, locate the “Autonomous Movement” section.
- The drop-down list next to “Type” is pre-set to “Fixed” which means that the NPC will not move and will remain in a fixed unit of space on the map.
- You may choose the following based on the needs of the storyline:
 - Random: The NPC will move in a randomized pattern across the map.
 - Approach: The NPC will approach the character avatar.
 - Custom: The NPC will move in a pattern predetermined by the designer.
- Then locate the Speed feature and select at what speed you would like the NPC to move.
- Next, locate “Freq” which controls the frequency at which the NPC will take steps around the map. The speed control in the previous step, however, dictates the speed at which the NPC moves from one tile to another. The lowest frequency will make it, so the NPC moves from one tile to another on the map at the lowest rate possible. For instance, the NPC could move from one tile to another very quickly (speed) but setting it to the lowest frequency will have the NPC stay on the current tile longer between speedy movements.
- You may preview this by selecting “OK” on the Event Creator window and clicking on the play icon at the top right-hand side of the program. This will launch the game as is.

Step 3: Customizing Your Character Avatar

- While in the event editing mode, click on the character icon on the top right-hand side of the program window. 
- Here you can customize the look of a new character from top to bottom.
- Choose male, female, or kid trays.
- Here you can customize the colors, shapes, and styles of the character's clothing, hair, and face. You can add accessories and choose what the character looks like in certain scenarios (winning a battle or getting defeated). You can also Randomize these features by clicking "Randomize."
- When finished, click "Save Settings."
- Click "Face Image"
 - Click "Export"
 - Save this as a recognizable name. ("Bob Face")
- Click "Walk Character"
 - Click "Export"
 - Save this as a recognizable name. ("Bob Walk")
- Click "Damage Character"
 - Click "Export"
 - Save this as a recognizable name. ("Bob Damage")
- Click "Battler"
 - Click "Export"



- Save this as a recognizable name. (“Bob Battler”)
- Click “Close.”
- While the event editing mode is selected , click on the database icon  on the top right of the program window.
- Select the “Actors” tab in the database window.
- Right click on “Harold” under Actors.
- Select “Clear.”
- Enter your customizations for the main character avatar’s name, nickname, class, initial and max levels. There is room for a background on the character as well under Profile.
- Under images, there are three customizable images of the avatar, a Face image for when dialogue or battle scenes occur, a Character for when the avatar is walking along the maps, and an [SV] Battler for battle scenes using the Side View rather than front view (this is a preference only and does not affect gameplay. Changing the battle sequences from front view to side view is not covered in this tutorial).
- double-click on the image below Face.
- Choose the name of the character saved in the above steps (“Bob Face”).
- Click “OK.”
- Repeat the same process for Character and [SV] Battler Images.

- If there is only one playable character to the fictional game you are creating, click “Change Maximum” and select “1.” If there are more characters, follow the above steps for the remaining character in the story.

Step 4: Initiating Conflict

The question needing to be asked and which might be answered in part by the storyline created in Stage 3 of the game design is: How will the conflict be triggered? In what form does the initial conflict of the story reside? Perhaps the character is initially introduced to the conflict via a person, maybe the conflict arises in keeping your character alive against the elements, or perhaps the character stumbled upon a door or secret cave. It is all dependent upon the storyline arc that was developed in previous stages and one that works realistically with the study abroad location in which the excursion is set.

Making a Battle Build System. For a “random encounter” battle system, follow these instructions. First, enemies must be created to battle.

- In the event mode  on the main screen of the game you are building, click on the database icon .
- Select the “Enemies” tab.
- There are premade antagonists already on this screen that can be used; however, most of them are fantasy creatures which do not correspond to historical timelines. You will need to create one that might correspond to the

enemies in your historical timeline or fictional narrative (i.e. Nazi soldiers, French Revolutionaries, Samurai warriors, etc.). There are a number of add-on packages available at the RPGMaker website (<http://www.rpgmakerweb.com>) that provide more historical enemy artwork images, but for the purposes of this project, it is best to work with the basic program resources.

- Click “Change Maximum.” Select a desired higher number of enemy slots that can be used (around 10 could be good).
- This is what should appear as the main screen of the Enemies tab:

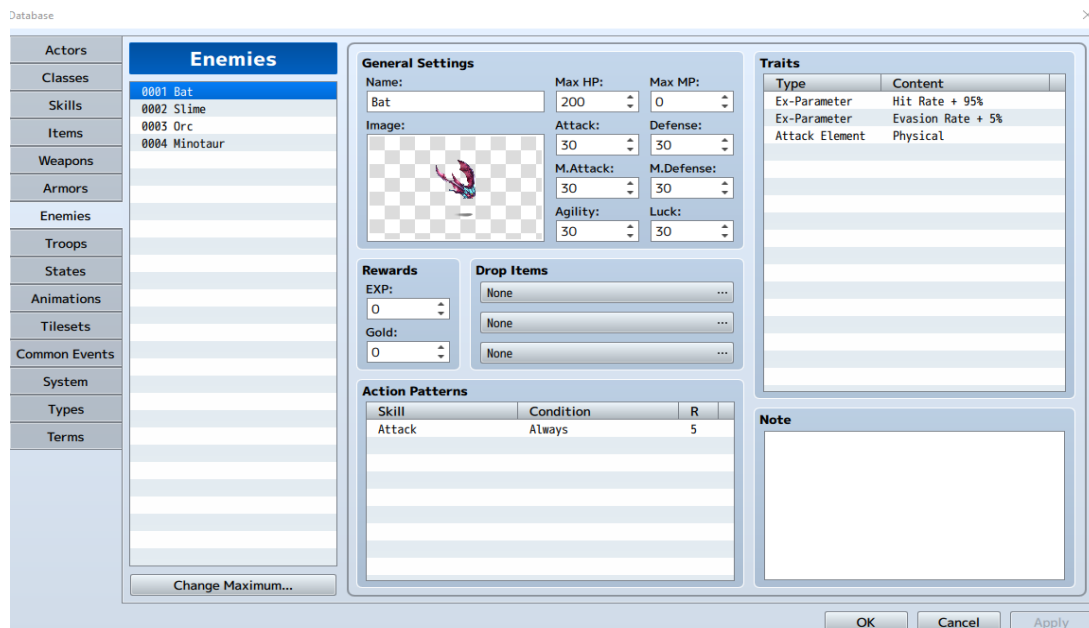


Figure 5. Screenshot of the Enemies tab from the Database window of RPGMaker MV.

- The first example of an enemy is a bat. If you double-click on the Image box, you can customize the image from subject matter to color scheme.

- The group of number windows to the right of the image box will be the amount of power this enemy has at his or her disposal:
 - Max HP: Maximum Health Points. How much overall health your character avatar must deplete before the enemy is defeated.
 - M. Attack: Magic Attack power. The power of magic the enemy uses. Seeing RPG's for this project revolve around historical events, this should be set to zero.
 - Agility: Determines the attack order. RPG battles are turn-based.
 - Max MP: Maximum Magic Points. This is the highest amount of damage that can be inflicted by the enemy using magic. Seeing as RPG's for this project revolve around historical events, this should be set to zero.
 - Defense: The amount of damage taken by opponents.
 - M. Defense: The power of magic against the enemy from opponents. Again, this should be set to zero.
 - Luck: The amount of chance either in or out of favor that an enemy might be inflicted with further damage or deal more damage than originally intended.
- Under "Drop Items" you may choose what objects can be dropped by this enemy upon its defeat. These items must be already built into the game from another step to show up in the drop-down menus.


- Under “Rewards,” you may choose how much gold or experience points the character avatar will receive upon successfully defeating the enemy.
- In the “Traits” box, you may choose what particular fighting style the enemy has and statistics that work in the enemy’s favor such as a 5% likelihood to evade an attack (Evasion Rate + 5%).
 - double-click on the text in the trait box.
 - There are a lot of traits that can be manipulated. Some are fantasy related (i.e. inflicting elemental damage). Hovering the mouse over the words in the Traits window provides a description of what each choice will do for the enemy. This can also be applied to the character avatar by choosing “Actors” in the main Database window.

The biggest traits to consider for enemies and characters alike are the traits outlined above along with healing and escape options.

- To allow enemies to heal during a battle, select “Skill” in the Traits window, click “Add Skill” and choose “Heal” from the drop-down list.
- To allow enemies to run/escape a battle, double-click the text box under Action Patterns.
- Under Skill, select “0006 Escape” from the drop-down list.
 - Under Conditions, select when the enemy should escape: at a specific turn, HP, State, Party Level, or when a Switch has been hit.
 - Click “OK.”

- Enter the Name of the Enemy to your desired preference. (Remember this name for future steps)
- Click “Apply.”
- Click on the “Troops” tab
 - This is the grouping the enemies which will ambush the character avatar. You can choose one enemy to be in a group or multiple enemies all at once. The template has a troop starting with “Bat, Slime, Orc, and Minotaur.”
 - Highlight the desired enemy’s name from the right-hand side list and click “Add.” If you accidentally add an enemy, simply highlight the enemy’s name and click “Remove.”
 - Click “Change BG” to change the background of the battle scene to something appropriate with the story.
 - Name the Troop as a whole something recognizable.
 - Customize the dialogue options and choices by double-clicking the black diamond under Conditions in the “Troops” tab. You will open up the Event Command window. (Remember this name for future steps)
- Click “Apply.”
- Click “OK.”

Next, you will need to edit the map where the random encounter will take place.

- Go to the map in which you want a specific battle sequence to take place. Do this by highlighting the map from the list on the lower left-hand side of the program. (See the screenshot in the section titled “Multiple Maps.”)
- Right click on the map title in that section of the program and select “Edit.”
- In the section of the edit window labeled “Enc Step:” enter the number of steps a character will need to take before triggering the battle. (A quick amount would be anywhere between 15 and 30 steps, for instance. A good amount for gameplay would be more along the lines of 70) Choose a higher number for a larger map.
- Double-click on the box underneath Encounters.
- Select the Troop created in the above section of instructions.
- The “Weight” is the likelihood that this Troop over other Troops will be encountered.
- Under Range, choose either the entire map or the measured coordinates within the map for the encounter to take place (i.e. the character avatar’s steps only count within those coordinates and the character must be within that range to trigger the battle).
- Click “OK.”
- Run a playtest by selecting the play icon  on the top right-hand side of the program screen.

If your conflict is physical or between two people, the program is now set up with this conflict. If you are choosing to follow a survival/farming conflict for a story like the Irish Potato Famine example, you will need to follow the “Farming Build” tutorial below.

Making a Farming Build System. Perhaps you might want to structure your RPG around farming like the Irish Potato Famine example throughout this project. If the conflict in the storyline revolves around natural processes, this can be established in one form or another by building in a Farming System to the RPG.


- From the beginning, decorate your overview map and mini maps as described above. Make sure there is an area devoted to a plot of farmland for the character avatar to work in.
- Fill out the following table:

Table 11.

Database Identification of the Items that Can Be Discovered/Used by Player in RPGMaker MV

Items ID	Name	Consumable?
0005	Shovel	No
0006	Water	No

0007	Fertilizer	No
0008	seed potato	No
0009	Potato Spud	Yes
0010	Cheap Seed	No
0011	Cheap Crop	Yes
0012	Example	Example
0013	Example	Example
0014	Example	Example
0015	Example	Example

- When you are satisfied with the aesthetic appeal of the maps and you have filled out the table, click on the database  icon on the editing window of RPGmaker MV. This will open a database window.
- Click on the “Items” tab from the database window.
 - Click “Change Maximum” and enter the desired number of items planned.
 - Enter in the information from the table above under the Items tab starting with “0005.”

- Provide a name for the item. (“Shovel”)
- Provide a description for the item. (“Just an ordinary shovel”)
- Double-click on the grey and white checkered box to the right of “Icon” and choose the appropriate image that corresponds with the description. (Choose the image of a shovel). Click “OK.”
- Identify whether or not this item can be consumed (eaten or drunk) by the character avatar by choosing “Yes” or “No” from the dropdown list under “Consumable.”
- Choose the next number and begin the sequence again. (“0006”)
- When you have completed this sequence and all of the items are added, click “Apply” on the bottom right of the database window.

Once you have entered all items needed for the farming system (you can return later and add more if you forget some), you will need a repository for your character to collect the needed materials (a place for your character to collect shovels and other farming equipment).

- Place an item (chest or other receptacle) in a designated area for your character avatar to be able to find it (in their home or near the plot of land). To do so:

- Right-click on a desired tile where the receptacle should appear and select “Quick Event Creation.”
- Select Item.
- In the drop-down menu, select “Shovel.”
- Press “OK.”
- Double-click on the now visible image of a treasure chest that appears on your map in the chosen tile. This will open the Event Creator window.
- In the “Contents” section, locate “Change Items: Shovel + 1.”
- Right-click this section and select copy.
- Paste this same text directly under the initial line stating, “Change Items: Shovel + 1.” You will need to paste this line as many times as necessary to supply however much material should be found in the chest. (As an example, paste it three more times)
- Right-click the second line that repeats “Change Items: Shovel + 1.”
- Select Edit. This will open a “Change Items” window.
- Under “Item”, click the drop-down and select the next item to be collected in the receptacle by the character avatar. (Water, seed potato, potato crop, etc.)
- Select “OK.”
- Repeat this process for all the pasted lines in excess of the original.

- Next, add the dialogue text that will appear when the character opens the receptacle.
 - Select “Text: None, Window, Bottom.”
 - Right-click and select “Edit.”
 - Enter in what materials were collected from the receptacle.
 (“Shovel was found! Seed Potato was found! Water was found!”)
 - Select “Apply” and “OK.”

Next, you will need to develop the farming events.

- Select a tile that is decorated like a plot of tilled soil from the map. (The section of the map that will be used by the character for farming)
- Under “Trigger,” select “Action Button.”
- Under “Priority,” select “Same as characters.”
- Double-click on the black diamond under Contents which will open an “Event Commands” window.
- Under “Flow Control,” select “Conditional Branch.” This will open a “Conditional Branch” window.
- To the right of “Switch” in this window, click the “0001” drop down and label “0001 Hole).
- Next, click over to tray four.
- Make sure “Item” is selected.
- Select “Shovel” from the drop-down list to the right of “Item.”

- Select “OK.”
- Back at the Event Editor window, double-click on the area under Contents stating “If: Party has Shovel”. This will open the Event Commands window.
- Under “Messages”, select “Show Text...” This will open a “Show Text” window.
- In this window, write the following text: “Dig a hole?”
- Press “OK.”
- Back at the Event Editor window, again double-click on the area under Contents that states: “If: Party has Shovel”. This will open the Event Commands window.
- This time, select “Show Choices.” This will open a Show Choices window.
- The choices “Yes” and “No” should already appear under Choice #1 and #2.
- Select “OK.”
- Back at the Event Editor window, select the three lines of text stating “If: Party has Shovel” to “: End”.
- Right-click and select cut.
- Paste this material a few lines above this by right-clicking on the black diamond directly under “: When Yes”. Then select “Paste.”
- Right-click on the recently pasted text. Select “Edit.” This will open the Conditional Branch window.
- Under tray four, make sure the “Create Else Branch” box is checked.
- Select “OK.”

- Back at the Event Editor window, double-click on the black diamond underneath “Else” This will open an Event Commands window.
- Under Message, select “Show Text.”
- Enter the following text: “You don’t have a Shovel...”
- Select “OK.”
- Back at the Event Editor window, double-click on the black diamond underneath “If: Party has Shovel.” This will open the Event Commands window again.
- Under Message, click “Show Text.”
- Enter the following text: “Complete.”
- Select “OK.”
- double-click on the black diamond below “Complete.”
- Under Game Progression, select “Control Self Switch...” This will open a Self-Switch window.
- Make sure A is selected to the right of Self Switch and that the mode is on.
- Select “OK.”

To Create the Dialogue for Your Character to Farm:

- At the Event Editor window, move above Contents and click the “New Event Page” button. This will create a new page for events.
- Under Priority on the new page, select “Same as characters” from the drop-down list.
- Under Conditions, check mark the box next to “Self-Switch.”

- Under Image, double-click the grey and white checkered space. This will open up an image gallery to choose an image.
- Under the group “[Tileset B]” select the image that appears to be a hole.
- Select “OK.”
- Back at the Event Editor, click apply.
- Double-click the black diamond underneath Contents in the Event Editor window.
- In the Event Commands window, select “Show Text...”
- Enter the following text: “Would you like to plant a seed?”
- Select “OK.”
- At the Event Editor window, select the lowest black diamond under the Contents list.
- Select “Show Choices...”
- The Yes and No options should already be entered. Press “OK.”
- At the Event Editor window, double-click on the black diamond under “Yes.”
- Click “Conditional Branch.”
- Go to Tray four and select “Item.”
- From the dropdown, select seed potato.
- Press “OK.”
- Highlight the following three lines:

If: Party has seed potato


: End

- Right-click and select “Edit...”
- Under tray four, make sure the “Create Else Branch” is checked.
- Click “OK.”
- double-click the black diamond under “Else”.
- Click “Show Text...”
- Enter the following text or something similar: “You don’t have any seeds.”

This will ensure that there is an explanation text in case the player works out of order.
- Click “OK.”
- Back at the Event Editor, double-click on the black diamond below “If: Party has potato seed.”
- In the Event Commands window, click “Control Self Switch.”
- Select “B” from the drop-down list and click “ON” under Operation.
- Click “OK.”
- double-click on the black diamond underneath “Control Self Switch: B = ON.”
- Click “Change Items.”
- Select “potato seed” in the drop-down list.
- Select “Decrease.”

- Click “OK.”
- double-click on the black diamond under “Change Items: potato seed - 1”
- Click “Show Text.”
- Enter the following text or something similar: Seeds have been planted.
- Click “OK.”

To Create the Next Phase of Watering and Sprouting Plants:

- In the Event Editor window, click on “New Event Page.”
- Under Conditions, check mark “Self-Switch” and select “B” from the drop-down list.
- Under Priority, select “Same as characters.”
- double-click on the grey and white checkered box below Image.
- In the “Select an Image” window, scroll down the list to [Tileset B] and select it with your mouse.
- Navigate through the images until you find an image of a sprouting plant from the ground.  Select this and click “OK.”
- In the Event Editor window, click “Apply.”
- double-click on the black diamond under Contents.
- In the Event Commands window, select “Show Text.”
- Type in the following text or something similar: Water the plant?
- Click “OK.”
- Double-click on the second black diamond under Contents.

- Click “Show Choices.”
- Click “OK.”
- double-click on the black diamond underneath “Yes.”
- Select “Conditional Branch.”
- Under tray four, select item and select “Water” from the drop-down list.
- Click “OK.”
- Highlight the following three lines:

“If: Party has Water

: End”



- Right-click and select “Edit.”
- Check mark “Create Else Branch” from tray four.
- Click “OK.”
- double-click the black diamond under “Else”
- Click “Show Text.”
- Type in the following text or something similar: You don’t have water.
- Click “OK.”
- double-click the black diamond above “Else.”
- Click “Show Text.”
- Type in the following text or something similar: Complete.
- Click “OK.”
- double-click on the black diamond underneath “Complete.”

- Click “Control Variables.”
- Rename all the variables in the right-hand column to their corresponding number to 15: “var 1,” “var 2,” “var 3,” etc.)
- Select “var 4” and click “OK.”
- Click “OK.”
- Right-click “Control Variables: #0004 var 4 = 0.”
- Select “Copy.”
- Select the line below “Control Variables: #0004 var 4 = 0.”
- Right-click and select “Paste.”
- Right-click on the second line consisting of “Control Variables: #0004 var 4 = 0”
- Select “Edit.”
- Select “0003 var 3” from the drop-down list. Make sure that the Constant under Operand is at 0.
- Select “OK.”
- Back at the Event Editor window, double-click on the black diamond directly below “Control Variables: #0003 var 3 = 0.”
- Select “Control Self Switch.”
- Select “C” from the drop-down list.
- Click “OK.”
- double-click on the black diamond just below “Control Self Switch: C = ON.”
- Click “Change Items.”

- Select “Water.”
- Select “Decrease” under Operation in the Change Items window.
- Click “OK.”
- Click “Apply” on the Event Editor window.

To Create the Simulation of Time Passing/Growth of the Plant:

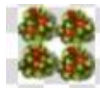
- Click on the “New Event Page” button on the top of the Event Editor window.
- Under Priority, select “Same as Characters”
- Under Trigger, select “Parallel.”
- double-click on the black diamond below Contents in tray four of the Event Editor window.
- Click on “Control Variables.”
- Under Operand, select “Variable.”
- Under Variable, Next to Single select “0004 var 4” from the dropdown list.
Click “OK.”
- Under Operand, select “0003 var 3.” Click “OK”
- Click “OK.”
- On the Event Editor window, select “Apply.”
- double-click the black diamond below “Control Variables: 0004 var 4 = var 3.”
- Click on “Conditional Branch.”
- Select Variable from tray one.
- Select “0004 var 4” from the drop-down list. Click OK.

- To the right of that drop-down list, select “ \geq ” from the dropdown list.
- Select “Constant” underneath the above-mentioned dropdown list.
- Enter the number “5” after “Constant.”
- Check mark “Create Else Branch.”
- Click “OK.”
- double-click on the grey and white checkered box under Image.
- Scroll down to “[Tileset B].”
- Select an image similar to a growing plants/shrub. (for example: )
- Select “OK.”
- double-click on the black diamond underneath “If: var 4 \geq 5.”
- Click “Control Self Switch.”
- Select “D” from the drop-down menu.
- Select “OK.”
- Select “Apply.”
- Highlight the black diamond underneath “End.”
- Select the grey and white checkered box under Image in the Event Editor window.
- Scroll down the list and select “[Tileset D].”
- Select an image of a plant sprouting leaves. (for example: )
- Select “OK.”

- Back at the Event Editor window, click “Apply.”

Create Harvest Options:

- Click “New Event Page” from the top of the Event Editor window.
- In this new event page, check mark “Self-Switch” under Conditions.
- Select “D” from the drop-down list next to “Self-Switch.”
- Select “Same as characters” under Priority.
- Select “Action Button” under Trigger.
- double-click on the grey and white checkered box under Image.
- Scroll down to and select “[Tileset D].”
- Select an image of a plant growing further from sprouting leaves. (for



example:)

- Select “OK.”
- double-click on the black diamond under Contents in the Event Editor window.
- Click “Show Text.”
- Type the following text under “Text”: Harvest the potato?
- Click “OK.”
- double-click the black diamond under Harvest the potato?
- Click “Show Choices.”
- Click “OK.”
- double-click the black diamond under “Yes.”

- Click “Conditional Branch.”
- Select “Variable.”
- Select “0004 var 4” from the drop-down list.
- Select “ \geq ” from the second drop-down list to the right.
- Select “Constant” underneath the drop-downs.
- Type in “5” in the box to the right.
- Click “OK.”
- double-click on the black diamond under “If: var 4 \geq 5.”
- Click “Show Text.”
- Type in the following text or something similar: “You got a potato.”
- Click “OK.”
- double-click the next black diamond below “You got a potato.”
- Click “Change Items.”
- Select “Potato.” from the drop-down list.
- Under Operand, select “Constant.” and type in “4.”
- Click “OK.”
- double-click the black diamond under “Change Items: Potato +4.”
- Click “Control Variables.”
- Under Variable, select “Single” and select “0004 var 4” from the dropdown list.
- Click “OK.”


- Copy and paste the line “Control Variable: #0004 var 4 = 0” into the next line below the original.
- Right click the pasted line and select “Edit.”
- Change the variable to “0003 var 3.”
- Click “OK.”
- double-click on the black diamond below “Control Variable: #0003 var 3 = 0.”
- Click “Control Self Switch.”
- Select “A” from the drop-down list.
- Under Operation, select “OFF.”
- Click “OK.”
- Copy and paste the line “Control Self Switch: A = OFF” below the original until there are four lines of the same text.
- double-click on the second line of repeated text.
- Select “B” from the drop-down list.
- Click “OK.”
- double-click on the third line of repeated text.
- Select “C” from the drop-down list.
- Click “OK.”
- double-click on the fourth line of repeated text.
- Select “D” from the drop-down list.
- Click “OK.”

- Click “Apply.”
- Click “OK.”
- Select the save icon on the top left of the program.

Add the time progression:


- Double-click on an unused tile near the farming land you created.
- Under Priority in the Event Editor window, select “Below characters” from the drop-down list.
- Under Trigger, select “Parallel.”
- double-click the black diamond under Contents.
- Click to the second tray in the Event Commands.
- Click “Wait...”
- Select the desired number of frames you would like to see the plants move in stages through their growth. (for example: 60 frames.)
- Click “OK.”
- double-click on the black diamond below “Wait: 60 frames.”
- Click “Control Variables.”
- Select “Range.”
- Enter “1” and “15” to the text boxes to the right of “Range.”
- Under Operation, select “Add.”
- Select “Constant” and add “1” in the text box to the right.
- Click “OK.”
- Click “Apply.”

- Click “OK.”

- Preview the results by loading the game with the play icon .

Step 5: Time System.

Many of these elements in the game run on a sense of time (counting the days for harvest or progression of historical record to signal a common historical event affecting the world), so it is crucial to implement a time system.

- While in editing mode on the overview map, click the database icon .
- Click on the “Common Events” tab.
- Select “0001”
- Enter “Time System” as the name.
- Develop three variables: one for hours, minutes, and days. (These can be whatever units you desire depending on the scope of the RPG. It might be better to set it for days, months, and years).
 - double-click on the black diamond under Contents.
 - Click “Control Variables...”
 - Click “Variable Selector.”
 - In the free slots, label minutes, hours, and days in individual variable slots.
 - Click “Apply”
 - Click “OK.”

- Exit back to the Common Events screen.
- double-click on the first black diamond under Contents.
- Click over to tray 2 and under Timing, click “Wait...”
- You may add your own sped up ratio of real time to game time if you’d like; however, a good amount would be around 60 frames.
- Click “OK.”
- double-click the second black diamond.
- Click over to tray 1 and under Game Progression, click “Control Variables...”
- Select Single under “Variable.”
- Select “Minutes” from the drop-down list.
- Under Operation, select “Add.”
- Under Operand, select “Constant” and enter the number “1”.
- Click “OK.” (This will tell your game to add a minute to the timer for every 60 frames.)
- double-click the third black diamond.
- Under Flow Control, click “Conditional Branch.”
- Select Variable, select “Minutes” under the drop-down list, and select \geq from the second drop-down list.
- Select Constant and type in the number “60.”
- Click “OK.”
- double-click the black diamond under “If: Minutes \geq 60.”

- Click “Control Variables.”
- Change from “Minutes” to “Hours” in the dropdown list.
- Click “OK.”
- Under Operation, select “Add.”
- Under Operand, select “Constant.” Type the number “1” in the text box to the right of “Constant.”
- Click “OK.”
- double-click on the next open black diamond.
- Click “Control Variables.”
- Under Variable, select Single and select “Minutes” from the dropdown list.
- Under Operation, choose “Set.”
- Under Constant, leave the number at “0”. (This tells the computer that after 60 minutes, to reset the minutes to zero and add an hour). Click “OK.”
- double-click the black diamond underneath “End.”
- Click “Conditional Branch.”
- Select Variable and choose “Hours” from the dropdown list.
- Click “OK.”
- Choose “=” from the second dropdown list.
- Set the Constant underneath this to “24.”
- Click “OK.”

- double-click on the black diamond above the last “End” and below “If:
Hours = 24”
- Click “Control Variables.”
- Select Single, choose “Days” from the dropdown list.
- Under Operation, select “Add.”
- Under Operand, select “Constant.”
- Type in “1” in the text box to the right of Constant.
- Click “OK.”
- double-click on the black diamond below “Control Variable: “Days +=
1”
- Click “Control Variables.”
- Select Single and select “Hours” from the dropdown list.
- Select Set.
- Under Operand, select Constant and enter in “0” in the text box.
- Click “OK.”
- On the main screen of Common Events. Set your Trigger under
General Settings to “Parallel.”
- Click the drop-down under Switch and name the next open variable to
“time on.” (If you have already made switches for the harvest build,
you can keep them in their place and choose the next open/unused
switch to label “time on.” Just remember this number for the following
steps.)

- Click “Apply. Click “OK.”
 - Click “Apply and Click “OK” on the Common Events window.
- To implement the time to your game:
 - Click any event tile on the map while in event mode. This will open the Event Editor window.
 - Under Trigger, select “Autorun.”
 - double-click the black diamond under Contents.
 - Click “Control Switches.”
 - Select “Single.”
 - Select “time on.”
 - Select “ON” under Operation.
 - Click “OK.”
- To set the time for when it will be at the start of the game:
 - In the same Event Editor window as above, double-click the second black diamond.
 - Click “Control Variables.”
 - Under Single, make sure “Minutes” (or hour or day. Whatever unit of time is preferred) is selected from the drop-down list.
 - Under operation, click “Set.”
 - Under Operand, click “Constant” and set it to “0” in the text box.
 - Click “OK.”
 - double-click the next black diamond.

- Click “Control Variables.”
- Under Single, make sure “Hours” is selected from the drop-down list.
- Under Operand, select “Constant” and set it to “6” in the text box.
- Click “OK.”
- double-click on the next black diamond.
- Click “Control Variables.”
- Select “Single” and set it to “Days.”
- Under Operand, choose “Constant” and set it to “1” in the text box.
- Click “OK.” (This means that when the game starts, it will be six hours into day one. Please change it to whatever you desire. You may change the variables to be day, month, and year and set it to start in the 1800’s for the Irish Potato Famine historical RPG or whenever your historical RPG is set.)
- To make sure this affects any of the characters:
 - In the same Event Editor window as above, double-click on the fifth black diamond, or the black diamond that does not have any writing after it.
 - Click “Control Self Switch.”
 - Choose Self Switch “A”
 - Under Operation, select “ON.”
 - Click “OK”
 - Click “New Event Page.”

- On this new event page, check mark “Self-Switch” and select “A” from the dropdown list.
 - Click “Apply” and “OK.”
- To make characters able to view the time:
 - Click on the database icon from the map view.
 - Click on the “Common Events” tab.
 - Make a new Common Event. Highlight the next open/unused number. Name it “Tell Time.” There will not be a Trigger and no Switch.
 - double-click the first black diamond.
 - Click “Show Text.”
 - Type in the following text: “Day \v[3]” (This is code to tell the computer to follow the variable numbers representative of the day. If your variable number was different to represent day, enter your variable where “3” appears above.)
 - Click “OK.”
 - double-click the next black diamond.
 - Click “Show Text.”
 - Type in the following text: “Hour \v[2]”.
 - Click “OK.”
 - double-click the next black diamond.
 - Click “Show Text.”
 - Type in the following text: “Minutes \v[1]”.

- Click “OK.”
 - Click “Apply” and Click “OK.”
- To create an item in the game which the character may view the time:
 - After following the above two instructional sections, on the Database window, click the “Items” tab.
 - Click “Change Maximum” to make new numbers available.
 - Click on the first unused number (0005).
 - Name it “Clock.”
 - double-click the box next to Icon to select an image to be representative of this in the game.
 - Enter a description for the player under Description: “Click to tell time.”
 - Under Consumable, select “No.”
 - Under Scope, select “None.”
 - Under Effect, double-click the text box to open the Effects window.
 - Click the “Other” tray.
 - Select “Common Event.”
 - Choose “Tell Time” from the dropdown next to “Common Event.”
 - Click “OK.”
 - Click “Apply” and click “OK.”

- Right click an area where you would like to place a chest or box from which the character may acquire the timepiece. Select “Quick Event Creation.”
- Select “Treasure.”
- Select “Item.”
- Choose “Clock” from the dropdown list.
- double-click the image to customize the appearance of the chest.
- Click “OK.”
- To create a spot in the game which the character may view the time:
 - Select an area of the map where you would like to place the time telling (Maybe a clock tower or person).
 - double-click this spot to open up the event editor window.
 - double-click the first black diamond under Contents.
 - Under Flow Control, click “Common Event.”
 - Select “Tell Time” from the dropdown list.
 - Click “OK.”
 - double-click on the grey and white checkered box under Image. Select an image of a clocktower or person or some other image to represent tell time to your character.
 - Click “Apply” and click “OK.”
 - Remember to save changes, then run a playtest by selecting the play icon on the top right-hand corner of the program window.

Step 6: Winning/Losing the Game.

Depending on the conflict build will depend on how the game will resolve itself. Both builds however rely on the survival of the main character while there are objects, people, and items standing in the way of survival. For common events like battles or farming time, the chances of success are predetermined by the data entered into the battle or farming event. This can all revolve around reaching a certain experience level with the character that can be set in the character creation area. If the player cannot solve a problem or defeat an enemy, they will automatically get a generated game over screen and be directed back to the main menu to start over.

Usually in RPG's, to win the game, the character must overcome one final obstacle (i.e. fighting a boss or ending a famine). The designer can build a culminating event to occur after a character has reached a certain level. Building the event will follow the same instructions as above depending on the type of conflict/build of the game. The character may not be able to access the map where the culminating event occurs until he or she reaches a certain level, or the battle will be programmed to only occur at a certain character experience level.

To trigger the battle/final farming event (make sure the enemy has already been created in the database!):

- Create the final event in the Event Editor paying specific attention to:
 - Image
 - Autonomous Movement
 - Priority (more than likely: Same as characters)

- Trigger (more than likely Player Touch)
 - Name (Enter “Final Boss” or “Final Event”)
- Double-click on the black diamond under Contents.
 - Click “Show Text.”
 - Select an appropriate Image and enter a text prompting the player to fight or perform a final function (an enemy saying, “Fight Me!” or an NPC ally asking the character to “Save our Crop!”)
 - Click “OK.”
 - Double-click on the second black diamond and click “Battle Processing.”
 - Make sure “Can Lose” is checked and “Can Escape” is NOT checked.
 - Select a pre-developed enemy or crop event from the drop-down list (this needs to be created in the database prior to building the final event).
 - Click “OK.”
 - Double-click on the black diamond under “If Win.”
 - Click “Show Text.”
 - Enter in congratulatory text with an Image of an ally: “You have defeated the great evil. You may live happily ever after!

Congratulations on winning the game!”
 - Click “OK.”

- Click on the black diamond under the text you just entered. Click “Game Over.”
- Click on the black diamond under “If Lose.”
- Click “Game Over.”
- Click “Apply” and click “OK.”

This concludes the tutorial on the game architecture. Please feel free to customize your text, battle events, or crop events however might be most appropriate to your design. You might need to repeat certain sections of this tutorial multiple times in order to create your desired number of events, interactions, or conflict opportunities that you deem necessary. Just as in the narrative stage, the more events, interactions, or conflict opportunities that appear in your game, the more investment and immersion students might encounter. However, every event creates an opportunity for a lose thread, bug, or error. The next step attempts to identify such errors in the form of playtest and critique.

Stage 5: Playtest and Critique

The RPG's first, second and possibly third runthrough should be administered by the designer of the RPG. In order for your RPG to truly be a success, you will need to have other knowledgeable people run through the stages and play the game to assess whether or not the game meets certain educational and gaming criteria. These knowledgeable people could be fellow teachers in the department, scholars from other schools, and either leaders or veterans from study abroad excursions to your chosen location. It is best to provide the playtester with enough time to play the game at their leisure but that can still hold them to a punctual time frame for feedback. Considering your own schedule in preparation for the study abroad excursion, one to two weeks might be agreeable. You can make different arrangements for longer or shorter; however, leave enough time for you to be able to make edits and fixes. The questionnaire should be filled out by the playtester any time from directly after the playthrough to a day after playthrough. Some might wish to think on the experience and return later to the questions. This time frame is appropriate for getting valuable insight from a different perspective with the most recall.

The questionnaire is dissected into three sections: Educational Criteria, Game Mechanics Criteria, and Entertainment Value Criteria. These sections ask pointed questions around the three most common impediments to an educational game and at times employs Likert scales, multiple choice, short answer, and long answers. There are areas left open for elaboration should the playtester choose. While not required to be created in Google Forms, this questionnaire was written in the program to help

with ease of customization and distribution. Playtesters may be administered the questionnaire via web link which ensures anonymity, if required, but also allows for the playtester to answer without the influence of the designer in the room. Without the playtester's presence, the opportunity for open recall and candor is increased. The questionnaire should resemble the following:

Explanation of your answer. Is there an example you can provide for better clarity?

Your answer _____

Players gather a sense of temporality (time order) in the historical sequence set forth by the game. *

1 2 3 4 5

Completely disagree ☐ ☐ ☐ ☐ ☐ Completely Agree

Explanation of your answer. Is there an example you can provide for better clarity?

Your answer _____

Players gather a sense of causality or multicausality in the historical and narrative sequence set forth by the game. (i.e. were there elements in the narrative that showed the root causes behind historical events?) *

1 2 3 4 5

Completely disagree ☐ ☐ ☐ ☐ ☐ Completely Agree

Explanation of your answer. Is there an example you can provide for better clarity?

Your answer _____

Players gather a sense of multiperspectivity in the historical and narrative sequence set forth by the game. (i.e. were there elements in the narrative of the game that promoted viewing the historical events from multiple perspectives such as class, race, gender, etc.) *

1

☐

2

☐

3

☐

4

☐

5

☐

Explanation of your answer. Is there an example you can provide for better clarity?

Your answer _____

Game Mechanics Criteria

The following questions focus on the playability of the game, if there were bugs or errors that could impact the ability of the player to smoothly follow a flow of the game.

Was there anything that you wanted to do but you couldn't? *

Your answer _____

Were the gatekeeping elements (objects or non-playable characters [NPC's] designed to block progress until the player reaches a high enough level to continue) believable? Did they work well with the surrounding area to seem plausible? *

- ☐ Yes
- ☐ No
- ☐ Maybe

Can you elaborate on your above answer? Maybe provide an example?

Your answer _____

Is there enough time between battle or farming events so as to not seem annoying or monotonous? *

Your answer _____

Are there tasks set upon the character that make sense without seeming tedious? How much time did you feel like you were playing for? *

Your answer _____

Could you play the game again without following a tutorial? *

☐ Yes

☐ No

Did the game invite you to build a strategy for winning? *

☐ Yes

☐ No

Are there any assumptions the game makes about the game itself or the player? *

Your answer _____

Entertainment Value Criteria

These questions focus specifically on the enjoyability of the game from the player's perspective.

What was the most frustrating moment or aspect of what you just played? *

Your answer _____

What was your favorite moment or aspect of what you just played? *

Your answer _____

If you had a magic wand to wave, and you could change, add, or remove anything from the experience, what would it be? *

Your answer _____

How would you describe this game to your friends and family? *

Your answer _____

Did the historical music in each area help with the enjoyment of or immersion in the game? *

☐ Yes

☐ No

☐ Maybe

Can you elaborate on what you mean from your answer above? Any examples you can think of?

Your answer _____

Did the historical documents in each area help with the enjoyment of or immersion in the game? *

☐ Yes

☐ No

☐ Maybe

Can you elaborate on what you mean from your answer above? Any examples you can think of? *

Your answer _____

Figure 6. Template image of survey layout for example RPG *Blight* using Google Forms.

Conclusions

Once you have received evaluation guidance from your playtesters, take a moment to review and ask clarifying questions of them in case their responses are unclear. There are multiple aspects of the game that could be points of commentary by the playtester, so it is a good idea to start organizing the feedback into categories that are manageable. Possible broad categories like “what the game did well” and “what the game didn’t do well” are good as a starting point, but they will need to be delved into more deeply in order to ascertain the real areas that need most work. You can organize the concerns based on the stages of the blueprint if this is what the feedback resembles. The game design process is iterative, so you are expected to run through the stages multiple times before implementing this into a study abroad program. More specific categories could be classified by the sections of the questionnaire which have already dissected the feedback into education, entertainment, and game mechanics. It is a good idea to assign a hierarchy of sorts to the areas of improvement: what areas seem to need the most immediate fix? What areas are quick fixes versus areas requiring a lot of time to fix? From this standpoint of classifying the feedback, you will be able to approach the revisions in smaller, more manageable steps that will ensure a stronger product by the end.

You will know when you are ready to implement when all of the concerns cannot be addressed by the designer or educator but rather by the student. For instance, the concern about an error where the player cannot progress to the next part of the story can be addressed by the designer with a bug fix or by the educator with a

pace-making barrier. On the other hand, a concern on whether or not the students will be invested in the game's story will be entirely dependent on the educated guesswork of the designer and educator and a real answer will not be found until students play the game.

The goal of this blueprint is to provide set of starting skills in which educators and game designers alike could build a game that could reach students on a study abroad and help them develop a stronger appreciation for their host country. It is not intended to produce a perfect product through a single run through of these stages, but rather to set up an apparatus to which you, the designer may return and continue to flesh out over time. As with most games, it requires attention to detail and a passion for the subject matter in order to build. With patience, passion, and a strong foundation in the stages of the blueprint, you can build a successful RPG for students on any short-term excursion.

Appendix B: Tutorial Playlist

In order to better serve educators and designers with this blueprint, the researcher has compiled a set of YouTube tutorial videos that were most helpful and made the blueprint easier to build. This is not a complete list, but the playlist includes the video walkthroughs that best served in preparing a demonstration game to supplement the blueprint. These walkthroughs were constructed by and YouTube content creator who goes by the handle SRDude. His YouTube channel contains many more walkthroughs on RPGMaker MV and he also builds plugins for the program in order to create more advanced RPG options.

It also includes a video of the demonstration game so as to put this project in visual context. The demonstration game video is set in Ireland in 1845 during the Irish Potato Famine and introduces the main character, Connor, which the students play as while in the game. The demo underscores areas of game discussion from the project such as mechanics (time system appearance and a farm build) while highlighting ways to implement primary sources from history into the videogame architecture for student players to access. The final piece of the demo runs through a scenario in which the main character, Connor, confronts his landlord Lord Duncan about the Irish potato blight in order to show how the game can bring about choices that drive the narrative forward. This was all created to better visualize what was described in the project.

The YouTube playlist can be found here:

<https://www.youtube.com/playlist?list=PLdPJtrrLSiK--2qKSYGQ764A3nFsI9PNQ>

VITA

Stephanie L. Bundy

EDUCATION

May, 2007	Bachelor of Arts Northeastern State University Tahlequah, Oklahoma
May, 2009	Master of Arts University of Arkansas Fayetteville, Arkansas
Pending	Doctor of Education Morehead State University Morehead, Kentucky

PROFESSIONAL EXPERIENCES

2009-present	Instructor Northern Oklahoma College Stillwater, Oklahoma
--------------	---

HONORS

Spring, 2013	Outstanding Professor Educator's Leadership Academy Edmond, Oklahoma
--------------	--

PUBLICATIONS

Scott, S. (2015). Teaching multicultural composition through graphic novels." *Learning across Borders: Perspectives on International and Transnational Higher Education*. Eds. Leslie Seawright and Amy Hodges. Newcastle upon Tyne, UK: Cambridge Scholars Publishing.

Scott, S. (2013). Seeking the exotic: Methods of Orientalist agency in today's videogame narratives." *Terms of Play: Essays on Words that Matter in Video Game Theory*. Ed. Zach Waggoner. Jefferson, NC: McFarland Press.