The Life of a Game in The Game of Life: Exploring Engagement, Motivation and Understanding in a Gamified Foreign Language Classroom.

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I and my team at The Game Academy, a non-profit dedicated to the development and support of game-based educational curriculum, undertook the development and execution of a year-long curriculum for a third-year Spanish class which focused on the teaching of contextualized Spanish for use in the workplace and the education of the participating students on issues of career development and workplace interactions and settings. The class, called “Spanish in the Workplace”, taught at Casa Grande High School in Petaluma, is led by an enterprising educator, Pam McNees, who we met during a staff development day in the Spring of 2016. Pam is a teacher that holds similar philosophical views on constructivist, student-focused and project-based education as we do at The Game Academy, and we decided to work together to create a game-based curriculum to work alongside her standard curriculum, in which we would develop a role-playing game that her students would participate in for the class year.

 The game we developed we named “El Juego de la Vida” (translated as “The Game of Life”). We took the basic theme of contextualized Spanish and created a role-playing game in which all students would create a ‘persona’ or ‘character’ that began from the perspective of an individual freshly graduated from high school and launching into their lives in pursuit of a career. With a goal of increasing awareness of issues of discrimination and privilege, we helped each player create a character for our role-playing game possessed of specific background demographic traits such as gender, religious affiliation, ethnicity, etc., and starting with a specific socio-economic status. Each character, formed from this set of background traits, and with a chosen career goal, were used by students to explore the real-life situations necessary to navigate a pathway through the world of the workplace and education. The players would navigate their character from their starting place to their end career and economic goals. Through the course of the game, each student was responsible for doing research into their desired careers, discovering the educational/training pathway(s) necessary to enter that career, and were tasked with creating and maintaining a life schedule that included participation in a part/full-time job, classes in an educational institution (or time spent in a mentorship), maintaining a monthly budget (including managing student loans), and keep a healthy social life as to not make life a drudgery in their pursuit of success.

 While there exists literature on the benefits of motivation and its effect on learning (Robinson et al, 2012) and the use of games and game-related curriculum as a positive tool for increasing engagement and motivation, as well as advancing functional literacies ((Gee, 2003) and (McGonigal, 2011) to name a few), I anticipated potential problems in creating a game in which participation would be mandatory; in the endeavor to define ‘games’ and ‘play’, many philosophers, anthropologist and sociologists have included the quality of *voluntary participation* as being a crucial factor (Salen & Zimmerman, 2004). I felt it imperative that we keep an eye on how the game was functioning as both a learning curriculum and as a motivational activity. Knowing that this first prototype implementation we were creating for the class would hopefully be the basis for a future product we would sell to institutions, and because we knew we had a direct personal responsibility to the students in the classrooms in which we would be piloting our game, I felt it important to gather information from the students during the run of the curriculum to better understand their experience of playing the game, and their understanding of the game and its purposes. During the run of the game, I was careful to keep a conscious eye on the words used by and the body language of the students. Additionally, I created two different questionnaires during different stages of the curriculum delivery. The questionnaires were designed with the purpose of exposing the students’ understanding of the game, as well as allowing the students to speak to their own experience of motivation, engagement and enjoyment during the different phases of the game. Additionally, I solicited criticism and suggestions from the students as to what they thought would be desired additions, subtractions, or modifications to the game.

Phase I of the game constituted a paper-and-pencil version of the game with no digital technology used in the delivery other than providing scenario preparation materials for in-class role-plays in Google Docs, and periodic emails sent to the entire class to remind them of upcoming assignments due in support of the game activities. Phase I was conducted from September 2016 through December 2016, with adjustments to the game rules being made at several points during the game period, accounting for observations made about how the class was interacting with the materials, and how well the materials served to properly simulate the circumstances they were created to model. At the end of December, we gave questionnaire 1 to the class to answer regarding their experiences playing the game, as well as their opinions on changes that had been made to the game since inception.

After gathering and inspecting the results of questionnaire 1, we took note of many of the comments and made a radical shift in the structure of the game. We greatly reduced the complexity of the game, moved all our distribution of assignments and data collection to an instance of Moodle LMS, and focused on in-class role-play scenarios. We conducted Phase II from January 2017 through end of April 2017, at which time we administered questionnaire 2.

After Phase II, we then moved to an online storytelling model through StoriumEDU.com, an educational branding of Storium.com. Phase III is still being conducted and will complete at the end of May 2017. While we were unable to collect a third questionnaire before the writing of this paper, it is my intention to reach out to the students one final time for a conclusive questionnaire of their experience of StoriumEDU, and recap their experience of the full spectrum of the game-based curriculum involved in *El Juego de la Vida*. After collecting and analyzing the student responses, and speaking with Pam McNees again from the educator’s perspective, I hope to apply what I have learned to a second revision of the game that will be the basis of my thesis project for my Masters of Education degree.

LITERATURE REVIEW

*Dewey, Practical Knowledge, and Role-Playing Games*

The relative success or failure in engaging in a learning process can be measured in many ways, but I think John Dewey (1933) puts it extremely well when he marks learning as being effective if it helps learners develop knowledge and understanding of the subject matter and use it in practice. In other words, it isn’t enough to just know something in an academic, abstract sense, but to fully understand something, you need to be able to use that knowledge in a practical way. While this might be less obvious with some subjects such as philosophy or theoretical science, it is more directly true in cases of practical knowledge, such as contextually-based language acquisition. How better to judge if a person can use a language learned in a specific context than using the language in said context? And, taking a constructivist point of view, how better to learn such skills than to practice them directly, or if not directly, indirectly through simulation and role-play? Sarah Bowman reminds us in *The Functions of Role-Playing Games* that “employers and educators alike regularly use role-playing scenarios to enhance performance in job-related skills”, and that games can “provide the opportunity for players to experience hypothetical realities and step into the shoes of historical figures or professional roles…facing the complex challenges involved with each job” (Bowman, 2010).

*Role-playing, Language Acquisition, and Communicative Competence*

Teaching contextualized language is a complex business; the performance of a successful speech act in the context of real-life communication is more than just grammatical correctness. Canale & Swain (1980) reference a concept of *communicative competence* attributed to Hymes (1972) and Campbell and Wales (1970), which includes “not only grammatical competence (or implicit and explicit knowledge of the rules of grammar) but also contextual or sociolinguistic competence (knowledge of the rules of language use)”. This contextual & sociolinguistic competence would include an appropriateness to the context in which they are made – does the speech act performance match the expectations of the others involved, does it successfully communicate the entire meaning held by the utterer, does it conform to expected rules of appropriateness and social context? It is indeed important to account for the unspoken contextual rules that the native culture holds for the speech acts, as to avoid issues of *cultural imperialism* (Paulston, 1984), much less to increase the accuracy of meaning. Canale & Swain promote a curriculum that focuses on a functionally organized communicative approach to second language learning, citing an increase in learner motivation. They site a study by Tucker (1974) who suggests that students who are “uninterested in, frustrated by, and perform poorly in a grammatically organized second language programme may be encouraged and more motivated in a programme where emphasis is put on use of language in meaningful communication.” Further, they site Segalowitz (1976) who reports that ‘second language learners of French who have achieved a fairly high level of grammatical competence in this language through (grammatically organized) classroom training but lack training in sociolinguistic (or communication) skills, tend to have a negative attitude toward French and toward native French speakers when required to interact with them in this language.” Moving the educational focus away from grammatical correctness, and towards situational/communicative correctness serves to increase motivation, reduce frustration, and improve general attitudes towards those with which the student may find themselves in communication. Given that “Spanish in the Workplace” as a class is targeted to students not in the AP (advanced placement) track, they may also fall into the classification of those that are ill-suited to a grammatically-focused curriculum. Canale and Swain continue in the same paper to suggest that classroom activities should focus on “those communication activities that the learner is most likely to engage in”, and in a class whose purpose is to teach conversational Spanish in a workplace-related context, creating a game which features a large percentage of contextualized role-play scenarios revolving around workplace situations seems to be right on target.

*Role-Playing, Confidence and Motivation*

One study (McPhilomy, 2014) explored the use of role-plays and simulations to teach language, and found the interactive techniques “increased learners’ motivation, confidence, and use of language structures in meaningful contexts.” She reported students’ increased comfort in the target language environment, a lack of fear around grammar, and increased student achievement. Instead of “mechanical drills or boring instruction”, the role-plays and simulations “gave students the opportunity to experiment with grammar and improvise their knowledge in a friendly and safe environment, gradually promoting meaningful communication without prior preparation” and “sustained learners’ interest and motivation.” Paulson (1984) indicates even over 30 years ago that researchers have “emphasized students’ performance when using communicative language teaching (CLT) techniques as a motivating factor in improving speaking, reading, and writing skills. CLT techniques are at base, role-playing scenarios. Further, there is evidence that using a storytelling / role-playing methodology of language education may increase recall over more traditional methods. According to a study done by Osman Ozdemir (2015), students in their experimental group who learned language through storytelling and role-playing techniques “scored significantly higher in the immediate recall, recognition tests and delayed-recall, recognition tests than the students in the control group who learned the same words through present implemented English curriculum.” It may be that we not only see an increase in motivation but also an increase in retention through employing methods of role-play.

*Learning Spanish AND the Workplace*

 Language acquisition, while the primary concern of *Spanish in the Workplace*, it is not the only concern; in teaching language through the contextual lens of workplace situations, not only is language acquired, but so are the skills necessary to navigate the real-life contextualized workplace situations. What is desired is the creation of a dual set of competencies and fluencies; one is in Spanish, the other is in issues and situations of the workplace. Many students in the class do not have a real-world context of the workplace, and will be encountering these concepts for the first time in the class. Role-playing games are a good fit to solve this educational challenge, allowing students to experience a variety of workplace-related issues in a first-person fashion, relying on their creative, improvisational minds to imagine themselves in an interview, dealing with workplace discrimination, or filing a worker’s compensation request with a supervisor, all while communicating in Spanish. Hunt and Wiseman (2009) indicate a set of effective instructional techniques for encouraging student engagement and active collaboration in class, including interactive role-plays, simulations as well as teacher-led discussions. Our game would make use of all of these modalities.

E*fficient Learning and the ZPD*

As Luis C. Moll explains Vygotsky’s formulation of the idea of the Zone of Proximal Development (ZPD), there is a social context and dynamic between the teacher and learner that can vary between what he would call “scientific”, or “schooled” (what we might refer to as “academic”) educational transactions, and “every-day” or contextualized practices through activity. Vygotsky emphasized that the “everyday” and scientific concepts are interconnected and interdependent; It is through using every-day concepts that learners make sense of academic concepts, and “every-day” concepts provide the contextualized and grounded knowledge for the development of scientific concepts. (Moll, 2005). In creating a simulation role-playing game, we have created a socially-based activity that is devised to make use of the academic concepts learned through formalized education and grounds them in real-world practice. In the case of *El Juego de la Vida,* learners are given a chance to practice not only their formally-introduced Spanish in contextualized situations, but learners are simultaneously practicing real-world situations and tying the experience of those practices to Spanish words and concepts. I can think of no better way to cement the recall and use of Spanish when the learner finds his or herself in those very same real-world situations. And, if the educators and curriculum are doing their jobs correctly, they are keeping the students’ learning edge within the ZPD, creating an experience of “flow” or perhaps even *fun* in the learner, which lends to greater engagement and future motivation for participation.

Part of the work of keeping the experience of the game in the ZPD is allowing the student to find their own way through the curricular materials related to the dual immersion themes of “Spanish” and “The Workplace”, so that the student or player (these may be used interchangeably for our situation) is directing their own inquiry through said materials based on the goals set forth both by the premise of the game (*succeed in reaching your career*), and hopefully in the process, they are creating the everyday experience of pursing and completing career goals. I assume that the motivational effect is amplified if the character played is following a career goal shared by the student, at least in interest if not in full earnest, as the player shares a personal stake with their character in learning about and acquiring the necessary precedents towards the achievement of said career. However, the student player may be motivated to create a character that is pursuing a career goal completely disparate from their own. Our decision was to give the player their own choice in creating their character; either make the character like themselves and parallel their own desires and dispositions, or conversely create a character that is very different from themselves. In character creation, we provided some randomized demographic factors to promote growth in empathy (putting themselves in others’ shoes), but there is some indication in the data that perhaps this did not work well for everyone, as the distance between the context of the player and the character proved too great for the student to bridge. I can only hope that some small amount of the experience of playing a character from a dramatically different background was able to provide a breadth of context that to which many privileged white middle-class students do not readily have access in their everyday lives.

*Aligning the Curriculum With The Students*

According to Short and Burke (1991), for a curriculum to be truly learning-centered, the curriculum must be based on the search for questions that matter to the learner, and without which both the “sense of purpose and meaning in learning is lost and our natural inquisitiveness as learners is deadened.” And so, it appears, if we truly wished to create a learning-centered curriculum that taps into the intrinsic motivations of every student in the classroom, we as game designers needed to ensure that our game-based curriculum encompasses and addresses the interests and desires for knowledge of every player in the game. This is an easier task in a standard role-playing game configuration of 4-6 students per educator, but becomes a non-trivial complication in a classroom of 24-36 students. It is far easier to adjust and track a narrative for a small group of players than for a large group; the divergence of perspectives over a large population provides a special challenge for a storytelling curriculum, but we tried some novel techniques to adjust the narrative to smaller groups within the context of the larger class. I cannot say it was always successful. However, I am committed to the process of trying to make the experience feel as real as it can, while still serving the overall educational goals of the class within the context of the school system in which it is situated. I view the problem as an issue of complicatedness versus complexity – Instead of viewing the minds as complicated and predictable, structuring both curriculum and class management in a one-size-fits all methodology, I prefer to view the minds of our students as complex, and adopting a complex learning theory which views the learner, the educator, the environment and the context as part of a whole. This is the model behind constructivism and more closely aligns with my own understandings of learning systems. (Davis, Sumara, & Luce-Kapler, 2000). I agree with the notion that “complex theories of learning suggest that learning is not about acquiring or accumulating information. Rather, learning is principally a matter of keeping pace with one’s evolving circumstances.” Our game is a specially designed set of evolving circumstances, as is life in general; in playing the game, we practice life. We seek to emulate life in the context of our classroom, and this is a dialog between learner, educator, and narrative.

How do we continually adjust and create new curriculum to meet the desires and interests of our students, especially as their experiences while engaged drive new questions, and may even serve to modify and redirect the students’ interests? In following the narrative structure provided by the role-playing game curriculum, the goal is to channel the creativity and interests of each student both as an individual player and as a peer of other players, and as they engage with the situational prompts both proposed by the game facilitators, and derived from the previous actions of players. Each movement through the narrative creates new situations, with their own problems and solutions, and each dependent on their antecedent, and the antecedent events in the lives of the other characters in those situations.

According to Short and Burke (1991), “the purpose of engaging in inquiry is exploration” and “progress is measured by having new questions that we are ready to ask rather than answers we can pass on to others.” In other words, from an inquiry-based perspective, we are achieving our goals if the students are staying authentically engaged, and continuing to ask questions in the context of the game as well as outside of the game. But can we know that the actions performed by the players through their characters and any subsequent connected lines of inquiry are connected to the interests of the players themselves, or merely a calculated interaction serving the meta-needs of the player, such as receiving acknowledgement from the instructors, or praise from their peers? Sometimes it may be difficult to differentiate between the two, especially when the curriculum does not follow a pure inquiry model.

*Evaluation as Curriculum*

Naturally, we must rely on evaluation practices to help us take a better read on the level of alignment between the actions of the players in the game through their characters, and the inquiry-based interests of the players themselves. I agree with Short & Burke (1991) in their postulation that evaluation is part of the curriculum, allowing the learner participants a systematic way to gather, record and analyze what is occurring during learning, so that they may reflect on their process individually and with others, and in doing so allow for a change in perspective and furthering inquiry. I find their 3x3 matrix of evaluation perspectives vs. processes compelling, and I have created *El Juego de la Vida* to include multiple spots on the evaluation matrix beyond just traditional summative testing. Through in-character journals based on the role-play scenarios, players may measure their engagement in the game, as well as creating artifacts that help them and others measure their learning of Spanish and about issues of the workplace. Activities such as scheduling and planning one’s educational pathway allows players to measure their intent towards completion of their goals. And the introduction of multiple questionnaires along the way give some indication of the student’s understanding of the material and of the intent behind the inclusion of the material, as well as giving them a voice to their own likes, dislikes, and discomforts during the progression of the curriculum.

The questionnaires are transformative and transactional, as they help us as educators to assess the learning of the students, to stimulate introspection in the students, and to allow our students to give constructive feedback to us game designers in how we can improve the experience of play both as a game and as an educational intervention.

*Research Questions*

While I’ve taken an exploratory approach to the data collected, my research into the literature as well as my own experiences teaching the curriculum left me with a few assumptions that I will either validate or contradict in the analysis of the data. It is evident to me that while part of the students in the classes had an enjoyable time with the game-based curriculum, many had frustrations with the form of the curriculum in one way or another, and not all had issues with the same parts. As some delighted in the mechanical nature of character advancement and resource management, others found it tedious and confusing. As some enjoyed engaging in role-play scenarios with their fellow students, it drove at least one student to extreme anxiety and discomfort. Part of the motivation behind our radical redesign of the course mid-year was to support the learning of the students in face of their evident pains with the game as designed, and I’m certain that our changes worked for some and made the game less fun for others. While this implementation of *El Juego de la Vida* was a collection of learning experiences for the students, it was also a crash course in classroom game design for myself. I look forward to integrating the thoughtful information given by the students into the next iteration of the curriculum design that can be tested once again with a fresh group of students sometime in the future.

RESEARCH METHODS

*Participants*

The participants in the study were the third and fifth period classes for Pam McNees’s Spanish in the Workplace 3 course, during the period of 2016-2017 school year. The students were all registered sophomores through seniors at Casa Grande High School, in Petaluma, CA. The class was composed of both male and female students, and ages ranged between 15 and 18 years old. Ethnically, the classroom was composed primarily of white students, with a small representation of students from Latino, Black, and Asian backgrounds.

In the two classrooms, there were a total of 54 students: in period 3 there were 29 students and in period 5 there were 25. In both questionnaires for both classes, 100% of the students were invited to voluntarily answer the questionnaires, either in full or in part, with the understanding that a) they would not be graded on their participation, b) that the purpose of the questionnaires were to improve the game for their class as well as for future classrooms, c) that the results would not be accessible by other students in the class without first making the identity of the student anonymous, and d) that they would receive “extra credit” *Vida Points* (the currency used in the game to improve one’s character) for their participation. Both questionnaires were conducted online outside of class on the student’s own time. Questionnaire 1 was created as a Google form that could be answered only once by each student, and which stored the results of the questionnaire into a Google spreadsheet accessible by the teacher and by our team alone. Questionnaire 2 was created as a questionnaire component inside of the Moodle LMS used to implement the second phase of the game, and students answered questions directly from within Moodle. The results for questionnaire 2 were stored in the Moodle instance for each participant, accessible only by administrators and teachers of the class.

While the sample size for the class was 100%, the response rate was lower: for questionnaire 1 there were 19 total respondents (period 3 had 14 respondents, and period 5 had 5 respondents) and for questionnaire 2 there were 14 total respondents (9 respondents for period 3, and 5 respondents for period 5). From the total sample, 8 students took both questionnaires, and there were 25 unique participants across both questionnaires.

While some small percentage of the answers given by respondents were incomplete, terse or did not directly answer the question asked, I included all responses in my data analysis; I have assumed that because participation in the questionnaires was voluntary, all answers were given in good faith and to the best ability of the participant. I also felt that an incorrect answer could potentially tell us something about the level of understanding of the participant in question, either to the question itself, or to the element of which we were inquiring.

*Apparatus or Instruments:*

My study is a qualitative analysis of the phenomenology of what it is like to be a student in one of the two classes participating in our gamified classroom, and the questions asked in both questionnaires reflect this perspective from a narrow set of perspectives.

Questionnaire 1 consisted of 117 questions, and were subdivided into several sections and sub-sections. The first three questions asked for personal identifying information (email, name, class period). The second set of questions were general in nature, were nine in number, and covered questions regarding the students favorite and least favorite part of the game, motivation as to why the student was playing the game, what might increase that motivation, their connection to their character they were playing, their understanding of the narrative presented by the game, and whether they felt that the use of technology would improve the game. The next sections asked questions specific to different parts of the game, such as: character creation, character advancement, resource management, scheduling, chance and circumstance, job performance, and role-play scenarios. In each of these sections, we asked questions regarding the students’ understanding of how that aspect of the game functions, what the purpose of that section would be regarding the game play as well as to their learning objectives, how well they felt the section worked, what might be improved about that section, what might be missing from that section, and how well they felt these aspects served to help the students learn Spanish and issues of the workplace. The complete list of questions for questionnaire 1 can be found in *Appendix A*.

Questionnaire 2 was far shorter in length, consisting of only 36 questions, divided into two main sections. The first section consisted of 16 questions of a personal/demographic nature regarding their family’s educational history, employment history, and their family’s educational and employment goals for the student. The second set of questions, 20 in number, were focused on player feedback on the educational goals of learning Spanish and learning about the Workplace. For each sub-section, we asked how they felt the game was helping them or not helping them meet their educational goals, if they had suggestions to address any concerns they had, what specific things they might be able to point at in the game that helped them in towards their educational goals, and any specific elements of the game that helped them in their goals. The complete list of questions for questionnaire 2 can be found in *Appendix B*.

 These questionnaires were developed with the primary goal of eliciting helpful responses that could help our team develop a more satisfying game to the students and to improve on our overall game model. Questions were open-ended whenever possible, and were designed to prompt the participant to contemplate their understanding, enjoyment, and opinion of the efficacy of the game as a learning tool. I did not craft the questions with a specific set of hypotheses that I wished to answer, but I did create the questions based on some of my own intuitions as to what might be effective and/or problematic in the different phases of the game.

Procedure:

While my principle form of data collection was in the form of the two questionnaires, since this is a qualitative study at base, I may count also among my data my observations while acting as game administrator and facilitator on a weekly basis in each class group. During these weekly sessions, I (and my collaborator, Bert Holcomb) would come into the class on a pre-scheduled day for the express purpose of administering the next period in the game. During Phase I, this entailed going through a set of routine game activities with the students, including: a) character improvement, where each player spent accumulated Vida Points on improving their character’s skills, and acquiring advantages that would help them in the game; b) Resource Management, including getting paid for the work period (each week was equivalent to one month in game time), paying out bills and paying off loans, and managing investments; c) Keeping their schedules up-to-date, including any interruptions in their normal schedules caused by other events in the game; d) Pulling Chance cards and reacting to their contents; e) preparing for and performing in-class role-play scenarios based on weekly workplace themes; f) scoring one another for their performance on the role-play scenarios, awarding one another Vida Points, and tallying up total Vida Points for the day, and; g) making performance rolls to assess how well they performed in their jobs for the period. During Phase II, the daily agenda was streamlined to include only the following: a) making performance rolls for the period (in Phase II, each week was equivalent to 3 months); b) preparing and performing role-play scenarios, and; c) peer evaluation and awarding of Vida Points. During both Phase I and Phase II there were assignments required on the part of each student to complete between game days, mostly consisting of doing any preparatory reading necessary for the role-play scenarios for the next week, and recording in the first person their experiences as their character in journal entries.

During these game days, I spent special attention in observing the mood, attitude, engagement and level of participation of each student. Unfortunately, I did not keep a time-coded set of notes for my observations and am relying on my memory of those events to reinforce any insights that I had while coding and interpreting the questionnaire data. Because of this, I will offer my personal reflections along with the data, but they should be marked as being somewhat less reliable than the solid data given by the students.

For each questionnaire, we gave the students several weeks to participate and answer as many or as few questions as they desired. Some students reported an inability to complete the questionnaires due to losing their data through internet connectivity and time-out issues, and were reticent to re-take the questionnaires, which is unfortunate, but should not affect the overall validity of the responses collected. Once collected, I informally read through the results of each questionnaire, and made summary decisions on redesigns of the game between phases I and II, as well as between phases II and III. For the purposes of this study, however, I took an exploratory approach and went back over each questionnaire, open coding the data for significant statements, recurring keywords, phrases and themes. I took a mixed approach between a classic phenomenological and interpretive phenomenological analysis, looking for essences, or commonalities of experience for an imagined high school student taking the class and playing the game, and thinking from the context of the individual students in the specific classrooms in which we implemented our intervention to interpret their experiences. In that the original purpose of our questionnaires in the context of our implementation was to improve the experience of the students, and to improve our understanding as a *learning organization* (Johnson & Christensen, 2014), I included aspects of an *Action Research* methodology, attempting to identify any *driving and restraining forces* implicated in the implementation of our intervention in the pre-existing public school classroom that might have contributed to the experiences had by the students, the teacher, and ourselves.

RESULTS

When answering questionnaire 1 (Q1), the students had been playing the game for three months already, and had a pretty good sense of how the game play proceeded. By that point, we had come to follow a similar set agenda every week; we had pulled away most of the scaffolding from our game play, and most intended features had been developed and put into play. Several times, however, we had made modifications to the system, in our attempt to make the game more representative of the pedagogical goals we were trying to support. One large change we made was to the skills system; we made skills reliant on time spent in an educational relationship (either in school or a mentorship) and players needed to allocate Vida Points earned from role-plays, plus spend the appropriate amount of time in their schedule. This was to slow skills acquisition down, and make it more meaningful to advance skills. It also was to standardize the costs involved in skills advancement and make ideas such as ‘grades’ work in the system with consequences related to one’s character’s future access to opportunities (such as advanced degrees). By the time we invited students to answer questions from the first questionnaire, they had lived through several rules changes, and some were showing indications of being confused and frustrated.

*General Questions*

In the beginning of the first questionnaire, and at the end of the second, I asked several questions designed to elicit a sense of whether the students felt the game was ‘fun’, and if so, what parts did they enjoy. I also asked what they did not enjoy, knowing through class observations that some students were having some hard times with specific aspects of the game as it had been implemented. At the beginning of the year, the class was generally enthusiastic about participating in the game, but some harbored skepticism about the modality of teaching through games, and I anticipated some students complaining in the questionnaires. In coding the data, I found the students’ answers to yield more than one aspect in their responses, so I allowed for each to be declared individually, and so the number of ‘favorite’ or ‘least favorite’ aspects do not correspond one-to-one per student reply.

*What was your favorite part of playing this game, and why?*

According to the questionnaire 1 (Q1), there were 5 votes for *Chance Cards* as their favorite, followed by 4 votes indicating the *unpredictable* nature of the game, adding up to about half the class indicating a preference for the exciting, higher-drama aspects of the game, that involved a randomized element. Some individual supporting answers to this view are “I like chance cards because of the high risk high reward”, or “my favorite part would be pulling chance cards because it brings a certain excitement”. Some understood the purpose of the chance cards was also to add the realism of unexpected things happening: “I enjoy chance cards because in real life you never know what’s going to happen.” These students had accepted this game mechanic both as fun, but also having a deeper implication to life simulation.

Others indicate a preference for the aspects of the game that allow for players to make plans and assert a certain amount of control over the fate of their character’s life. They also indicated an alignment with the transferrable aspects of what they were learning into their own lives. Q1 showed 4 votes given for *working with the economics* of the game (buying things, investments, tracking bills, etc.), 3 votes for the *realism and learning about real-life tasks*, and 2 votes each for *improving one’s character*, *learning about future careers*, and *preparing for the future*. Some supporting answers to this view are “I enjoyed ranking up in skills and saving money in my bank account in the earlier version of the game”, “My favorite part is improving my character’s life and getting more details.”, and “I really like how this game prepares us for life and what to expect once we leave high school.” Some of these students that show frustration in later questions around items they feel are not in alignment with what they envision to be realistic, and they also show frustration around too much random chance in the fates of their character’s life.

By the time of questionnaire 2 (Q2), we could tell through observation that the game mechanics were losing many students, and we had a primary obligation to the educational well-being of the students above whatever game design concerns we had around modeling the simulation aspects of the game. We had removed most of the mechanics around character improvement, and economics, leaving the exploration of class themes, weekly role-play scenarios based on those themes, performance rolls, personal journaling, and group discussion as the main activities in the game. We had also changed the modality of the game away from a paper-and-pencil role-playing game model (which was adding frustration to those who didn’t quite get the idea of updating character sheets) to an online delivery model of assignments and information through an instance of Moodle LMS. Ideally, we would have developed software to function as the character sheets, but with limited time and resources, the best we could do is create an online profile of the character with additional variables that the students or game administrators could update manually.

With the context of the modifications made, the elements most liked by the students in questionnaire 2 (Q2) were more focused, as there were less moving parts in the game from which to choose. Students showed preference for *career exploration* (4 votes), *interacting with classmates* (3 votes), *learning about workplace situations* and *performance rolls* (2 votes each), and 1 vote each for the other categories, totaling six distinct items in all, including *using Spanish professionally/conversationally*, *budgeting*, *learning about loans and what things cost*, *role-plays*, *researching topics*, and *exploring opportunities* *not available in real life.* What is interesting is that two items (*budgeting* and *loans*) were not a part of the Phase II game, but were still marked as favorite parts of the game. This is likely because they were missed and the respondents wished to see them return to the game. With the change in focus from character advancement as a game-like rewards system to a more narratively-based game, the comments by the students reflected some had definitely followed the change in their own motivations: “I enjoy the performance rolls because I like giving creative reasons for my scores. I also like the role plays with my group because it’s interesting to learn about other characters.”

*What was your least favorite part of playing this game, and why?*In asking the students to indicate their least favorite parts of the game, I was giving them explicit permission to complain about what was causing them stress and anxiety. I could tell from body language and class participation that some aspects of the game were causing certain students discomfort, and that they were no longer in alignment with aspects of game play. To reference Vygotsky and the ZPD, some students were clearly outside of their comfort zone and were feeling lost and anxious.

 In the beginning of our game development and delivery, we had been under the assumption that the work we were doing once a week was to be supplemental; we were administering a game to increase awareness of work-related issues and to provide a framework of interest that the teacher could then use in her Spanish instruction. Neither myself nor my partner on the team spoke Spanish, and therefore the game was implemented and presented to the students in English. It was our intent that the writing assignment portions of the game (character backgrounds and journals) as well as the in-class role-plays would all be performed in Spanish, but the related Spanish would be taught in the intervening week between our presence in the classroom. It became evident over time, however, that the students were not receiving as much ‘traditional’ instruction as they would have desired, and instead the teacher was using a constructivist ideology and expected the students to do their own research and to use her as a resource for their own learning. While this is an approach I understand and with which I have alignment, it was obviously quite different from the expectations of a transmissive teaching environment that many students had come to expect, and which caused them distress. As asserted by Friedman et al (2006), ensuring students are prepared for both the activities and materials is extremely important to the success of the instructional strategy; some of our students clearly were outside of their comfort zone between what they felt they knew and with what they were being asked to engage, leaving them feeling frustrated. Multiple answers to later questions expose the students’ distress and frustration with comments that they were not ‘learning any Spanish’ to support the game activities.

Given this background set of experiences it was no surprise to me that in Q1 there were 5 votes against *role-play scenarios* with 3 comments on a *lack of* *vocabulary* being taught to handle the role-plays, and 4 comments indicating a *lack of help*, *nervousness*, *a lack of fun*, and *just not understanding the point of it*. One supporting comment to this point of view states “My least favorite part of the game are the difficult scenarios. They would not be difficult in English but we are not given any vocabulary and are often left in a haze of confusion because we have not been taught any vocabulary.”

Another artifact of our game design methodology was our lack of fully developed documentation for the game mechanics. While I had written and developed a document over 100 pages long, and eight pages detailing a player’s character and their defining traits, changes made to the game were shifting the rules, and the documentation was not always kept up-to-date. We provided ample instruction in class on the subject, and supported the students in the weekly operations, but many were not tracking well, causing more frustration and anxiety. Several students were showing signs of disengagement from certain activities, and this was evidenced in the responses to the questions further in Q1 and Q2. For the *Least Favorite* aspect question, after role-plays, many complained the game was *too confusing* (4 votes), due to the *complicated mechanics* (3 votes). Supporting individual entries are “My least favorite part of the game is the newer version of ranking up skills with grades and numbers. I’m not very clear on how to do that”, “Skill improvement, it’s confusing”, and “trying to upgrade my character because there are too many components to it.”

A few additional aspects of the game that understandably caused some consternation with certain students was the mechanical, tedious nature of updating character sheets each week, and the unequal application of dealing with chance cards or other variable events in characters’ lives, creating time in the game session where many players were left waiting for other players to complete work before they could move on to the next phase of the agenda. We saw this effect grow as the weeks progressed, and was a motivating factor for our re-design of aspects of the game, such as removing many mechanics and focusing in on group role-plays as the main activity of the game session. The remainder of the *least favorite* aspects votes were around *too much writing/re-writing*, *too many delays*, *character improvement*, *repetitive/tedious*, *not enough knowledge to play game well*, *not learning Spanish*, *learning things already familiar*, *too unrealistic*, *too much freedom*, and *too easy to cheat*.

*Motivation to Play*

In Q1 I posed two questions about player motivation; one asking what reasons the student has for playing the game other than its being required, and one asking if anything would give them a greater motivation to play. This is a related question to enjoyment, but focuses more broadly on reasons for participation other than just personal enjoyment.

*Why do you play this game? Other than that you are required, do you have any other reasons for participating in this game?*

Five students indicated that they were playing the game only because it is required. Aggregating over similar responses, 7 votes were related to *educational* reasons, 6 votes were for reasons involving *interest*, 6 votes for reasons involving *engagement*, 2 votes for *learning about the future*, 1 vote stated it was *fun*, 1 also voted it was *no longer fun*, and 1 vote for *grades.* While it was disheartening to read replies such as “I can’t think of any other reasons to play this because it isn’t fun anymore”, there were an equal or greater number that indicated positive reasons that students were engaged in the game, such as “I play this game because it can be really fun watching people’s fortune with chance cards and everything else.”, I find the game very interesting and I want to see what happens to my character”, and “I play this game because I honestly can and its cool to be a part of it.”

*What, if anything, would give you a greater motivation to play the game?*

For this question in Q1, there were 5 votes indicating reasons related to *grades*; 4 did not think that the game contributed to their grades and wanted the game to count, and the other wanted the game to have a *greater* effect on their grades. Of the remaining answers, 9 were related to desiring some sort of adjustment to the game mechanics, 2 votes were desiring *less work* related to the game, 2 votes for *greater clarity* in the rules, and 1 vote asked for the game to be moved *online.*

*Opinions on Changes in the Game*

While there was no analog of motivation to play in Q2, I did ask the students how they felt about the modifications we had made between Phase I and Phase II of the game. [this section is incomplete]

*Issues of Game Understanding*

The bulk of Q1 and Q2 relate to ascertaining the understanding by the students of differing components of the game, both in function and in purpose. The results of these questions are voluminous, and truly too much to report on in any level of detail here. However, it is important to comment that there was a great deal of insightful understanding on the parts of the students as to the purpose of the parts of the game included, though some indicated a lack of understanding of specific components, either due to a lack of proper documentation, or related to a dislike of the game component. It is hard for me to disambiguate whether the dislike created the lack of alignment and understanding as to *why* the components were included in the game, or if conversely, the lack of understanding created the dislike. All in all, however, the students had a more sophisticated and nuanced understanding of the point of a simulated game in the practice of language and workplace issues than I would have imagined at first. Mostly, the students reported pains around lacking a traditional instructional component that would reinforce their activities in the game, and I conclude that a future revision of the game needs to have a strong alignment with a comprehensive overall language instruction approach, instead of our current version that assumes said instruction is taking place independently.

*Final Comments from Students*

In the beginning of the class year I let the students know that they were all active participants in playtesting our game, and were in a sense co-developing it with us. I reminded the students of this on multiple occasions throughout the year, especially regarding filling out the questionnaires, and I think many took this to heart. Responses throughout the questionnaires shows a level of thoughtfulness towards improving the game that go beyond just complaints, and while some students were showing clear signs of distress and anxiety around aspects of the game that made them uncomfortable, for the most part they stayed very professional in their responses.

At the end of Q2 I asked *“Are there any other comments and/or suggestions you’d like to make about the game?”* and many indicated a gratitude for our efforts – “Thanks for teaching us so much!!!!”, “I’m very thankful that you guys take your time and come into our class. Our class is very loud and irritating and I’m sorry for the disrespect. Thank you so much.”, and “Thank you for taking your time to try and enhance our educational experience.”

CONCLUSION

*Data Design Limitations*

Although I made use of the two questionnaires I developed for soliciting input from the students, I did not design the instruments with a formal analysis in mind. Resultantly, there were ambiguities in the questions that may have caused some confusion on the part of the students, or may have asked for too many details in the same question, causing fatigue and resulting in only partial answers for some questions. There is also some indication that a few questions may have been repeated, which has been commented on by more than one student in their responses. I feel that the responses given are valid, honest and thoughtful, even if they indicate dissatisfaction with aspects of their experiences. When I presented the questionnaires to the students, I asked them to be completely honest, and not to say what they felt that we might like to hear, but how they truly experienced the game, and I feel that they have held true to that request.

Due to time constraints, I was unable to individually interview any of the respondents to either questionnaire, which would have been most helpful in clarifying some of my own confusion around ambiguous statements given by students. It is my intention to take a sampling of the students who successfully gave us a response to one or both questionnaires, and ask additional questions to clarify their experience and provide another forum for their input towards the game design and implementation.

*Game Design Limitations*

I discovered during the run of our game that our partner teacher was relying more heavily on our game to drive her curriculum than I had expected, and because our poor timing of our delivery of class materials to her due to our just-in-time creation of content for the game, I discovered that she was not completely successful in creating highly supportive materials for the days in the classroom that we were not present that would serve to reinforce the learning we were promoting through our game activities. While some researchers have posed the concern that some teacher might conclude that they may “rely on the game and use it as a teaching replacement and not a supplement” (Kebritchi, 2010), I conclude that our failure was a miscommunication as to the level of integration the game would play within her standard curriculum model. As none of our team on the design and implementation of *El Juego de la Vida* spoke Spanish, we had assumed we were a supplemental intervention meant to increase interest in the materials already being taught in the classroom, with Ms. McNees integrating the Spanish education in the sessions when we were not present. It appeared, however, that Ms. McNees’s assumption was that we were re-designing the class curriculum around our game, and that our topics and exercises would be the primary focus of the Spanish instruction. This left some major gaps in the instructional portion of the class, and our assumption created a gap that caused confusion in some of the students. It is imperative that any future iterations of our game curriculum must create a tighter integration between classroom instruction and game activities – without which, we are dooming our students to confusion, frustration, and disengagement.

*Game Focus Limitations*

It was a challenge to adapt our standard approach of using role-playing games to the classroom, as the needs of a group larger than 4-6 per instructor create management difficulties both in the design and implementation of narrative materials that match the interests and concerns of the individual students. Further, in our attempts to make the game work for a large population and limited instructional staff, we were forced to focus on individual progress instead of group-created collaborative storytelling, which is the core strength of our approach. Future iterations should focus more on collaboration between team members, and projects at work. This game was very individually focused, and did not build on the concept of work relationships and mutual collaboration, which are simultaneously the strengths of role-playing games in education, and the very same skills we wish students to practice and in which to build competence.

References

Bowman, S.L. (2010). *The functions of role-playing games: How participants create community, solve problems and explore identity.* Jefferson, NC: McFarland & Company, Inc.

Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics*, 1 pp.1-47.

Davis, B., Sumara, D. J., & Luce-Kapler, R. (2000). Engaging Minds. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process.* New York: D.C. Heath and Company.

Hunt, G. H., & Wiseman, D. (2009). *Effective teaching: Preparation and implementation* (4th ed.). Springfield, IL: Charles C. Thomas.

Friedman, M.I., Hardwell, D.H., & Schnepel, K.C. (2006). *Effective instruction: A handbook of evidence-based strategies.* Columbia, SC: Institute for Evidence-Based Decision-Making in Education.

Gee, J.P. (2003). *What video games have to teach us about learning and literacy*. New York, NY: St Martin’s Press.

Johnson, R. B., & Christensen, L. (2014). *Educational research: Quantitative, qualitative, and mixed approaches. 5th ed.* Thousand Oaks, CA: SAGE Publications.

Kebritchi, M (2010). Factors affecting teachers’ adoption of educational computer games: A case study. British Journal of Educational Technology, 41, 256-270.

McPhilomy, S.S. (2014). Using role-plays and simulations to motivate esl students in a grammer class: A caste study (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3583312)

Moll, L. C. (2005). *Vygotsky and Education: Instructional implications and applications of sociohistorical psychology.* Cambridge, MA: Cambridge University Press.

OZDEMIR, O. (2015). The effects of story telling and role playing on young learners' vocabulary learning and retention. *The Journal of International Education Science*, *2*(4), pp. 530-548.

Paulston, C.B. (1984). Communicative competence and language teaching: Second thoughts. Das, B.K. Ed. *Communicative language teaching: Selected papers from the RELC seminar* *(Singapore, April 23-27, 1984)* Anthology series 14. Southeast Asian Ministers of Education Organization (Singapore). Regional Language Centre. Pp. 14-31

Robinson, L.J., Stevens, L.H., Threapleton, C.J.D., Vainiute, J., McAllister-Williams, R. H., & Gallagher, P. (2012). Effects of intrinsic and extrinsic motivation on attention and memory. *Actpsy*, *141*(2), 243–249. http://doi.org/10.1016/j.actpsy.2012.05.012

Salen, K., & Zimmerman, E. (2004). *Rules of play: Game design fundamentals.* Cambridge, MA: The MIT Press.

Short, K. & Burke, C. (1991). Learning-centered curriculum*.* In *Creating Curriculum: Teachers and students as a community of learners* (pp. 55-69). Portsmouth, NH: Heinemann Educational Books, Inc.

Appendix A: Questionnaire 1

1. Name
2. Email Address
3. Class Period

**General Questions: Enjoyment**

4. What is your favorite part of playing this game, and why?

5. What is your least favorite part of playing this game, and why?

**General Questions: Motivation**

6. Why do you play this game? Other than that you are required, do you have any other reasons for participating in this game?

7. What, if anything, would give you a greater motivation to play the game?

**General Questions: Connection with Characters**

8. Do you feel connected with your character in this game? If so, describe what connections you have, and how strongly you feel those connections. If not, what keeps you from feeling a connection with your character?

9. Do you feel invested in the fate of your character? Do you care how things turn out for your hero? In what ways? What do you care the most about in regards to your character’s fate, and what do you care about the least?

**General Questions: Understanding of and connection with overall purpose and narrative**

10. Do you have an understanding of what is the purpose of playing this game? If so, please describe. If not, please tell us what confuses you about why we are playing this game?

11. Do you feel connected to the narrative in this game? Do you have a sense of what is happening in your character’s life, in other characters’ lives, and in your character’s workplace?

**General Questions: Technology Integration**

12. How might the use of technology improve the game? What sorts of suggestions might you have to improve the experience of playing the game through the use of technology?

**Character Creation: Character Traits**

13. How well do you understand everything that describes your character on your character sheet (look at the first page of your character sheet: Socio-economic background, ethnicity, nationality, gender, disability, etc.)?

14. How do any of these traits help you connect with your character and understand what it might be like to actually be your character?

1. Are there any traits of your character to which you do not feel a connection? If so, why?
2. Are there any traits that you feel should be included that aren’t? If so, what are they, and why should they be included?

**Character Creation: Personality and Background**

1. Have you fully developed the background of your character? Do you have a good sense of your character’s family? Do you know where your character was born, currently lives, where they have traveled, etc.? Please describe.
2. Have you fully developed the personality of your character? Do you have a strong sense of who they are as a person? Do you know what they like, dislike, hope for, or fear? Please describe.
3. Do you think that having a fully-defined personality and background for your character makes the game easier or more enjoyable to play? Why or why not?

**Character Creation: Advantages, Assets, Disadvantages**

1. How do your character’s Advantages, Disadvantages and Assets help you understand your character?
2. Do you understand how Advantages/Disadvantages affect the rules of the game?
3. Do you understand the differences between advantages and assets? What is the major difference between these two items?
4. Do you think that advantages, disadvantages and assets matter to the game play? If so, why? If not, how might we make these aspects of the game more meaningful?

**Character Advancement: General Questions**

1. How well do you understand character advancement as part of the game? Is there anything confusing, or unclear? If so, what?
2. What do you think is the purpose of this part of the game? Why do you think we’ve included this part in the game?
3. What do you think works about this part of the game? Please give details.
4. What do you think needs improvement in this part of the game? Please give details.
5. Do you have any ideas about what might be missing from this part of the game?
6. How do you think this part of the game helps you learn Spanish?
7. How do you think this part of the game helps you learn about issues in the workplace?

**Character Advancement: Learning and Advancing Skills**

1. How do you feel about the mechanics for learning and advancing skills? Do you feel that the rules as given create a sense of getting better at skills, or do they get in the way of the experience of learning?
2. How do Vida Points play into the advancement of skills?
3. Do you have a sense of what skills are useful for in the game, or do skills seem too abstract to hold meaning for you? Please give details.
4. Do you anticipate and enjoy advancing skills? If so, why? If not, why not?

**Character Advancement: Advantages and Assets**

1. Do you have an understanding of what advantages and assets are in the game? Please give details.
2. How do Vida Points play into the purchase of advantages and assets?
3. Do you understand the differences between advantages and assets? What is the major difference between these two items?
4. Do you think that advantages and assets matter to the game play? If so, why? If not, how might we make these aspects of the game more meaningful?

**Character Advancement: Careers**

1. Do you have an understanding of Careers in the game, and how they work? What function do Careers play in the game?
2. How do Careers and skills rely upon one another?
3. Do you feel like your character is effectively pursuing their career goals? Why or why not?

**Resource Management: General**

1. How well do you understand resource management as part of the game? Is there anything confusing, or unclear? If so, what?
2. What do you think is the purpose of this part of the game? Why do you think we’ve included this part in the game? (15 responses)
3. What do you think works about this part of the game? Please provide details.
4. What do you think needs improvement in this part of the game? Please provide details.
5. Do you have any ideas about what might be missing from this part of the game? Please provide details.
6. How do you think this part of the game helps you learn Spanish? Please provide details.
7. How do you think this part of the game helps you learn about issues in the workplace? Please provide details.

**Resource Management: Economics**

1. How well do you think the economic model in the game reflects real life economics? Please provide details.
2. What, if anything, is confusing about the economic model in the game?
3. Do you have any suggestions for improving this part of the game?

**Resource Management: Bills and Budget**

1. Has managing bills and budgeting for your character taught you anything valuable? Please provide details.
2. Do you think managing bills and budgeting in the game helps you understand these aspects of real life? If so, please describe how. If not, please tell us what you feel doesn’t work about this part of the game and offer any suggestions you have to improve it.

**Resource Management: Loans and Debt**

1. Has managing loans and debt in the game taught you anything valuable? Please describe.
2. Do you understand the concept of compound interest? Did playing this game help you with that understanding? Please provide details.
3. Do you think managing loans and debt in the game helps you understand these aspects of real life? If so, please describe how. If not, please tell us what you feel doesn’t work about this part of the game and offer any suggestions you have to improve it.
4. How do you think that Spanish might play into issues of loans and debt?

**Resource Management: Investments**

1. Has managing investments in the game taught you anything valuable? Please describe.
2. Do you think managing investments in the game helps you understand this aspect of real life? If so, please describe how. If not, please tell us what you feel doesn’t work about this part of the game and offer any suggestions you have to improve it.

**Scheduling: General**

1. How well do you understand scheduling as part of the game? Is there anything confusing, or unclear? If so, what?
2. What do you think is the purpose of this part of the game? Why do you think we’ve included this part in the game?
3. What do you think works about this part of the game? Please provide details.
4. What do you think needs improvement in this part of the game? Please provide details.
5. Do you have any ideas about what might be missing from this part of the game?
6. How do you think this part of the game helps you learn Spanish?
7. How do you think this part of the game helps you learn about issues in the workplace?

**Scheduling: Calendar**

1. Do you understand why you are being asked to manage your character’s calendar? Does this part of the game make sense to you? If not, please describe your issues with this part of the game.
2. Has managing a calendar in the game taught you anything valuable? Please describe.
3. Do you think managing a calendar in the game helps you understand this aspect of real life? If so, please describe how. If not, please tell us what you feel doesn’t work about this part of the game and offer any suggestions you have to improve it.

**Scheduling: Disruptions in Schedule**

1. Have you experienced disruptions in your character’s schedule? Please describe an example.
2. If yes, has managing these disruptions taught you anything valuable? Please describe.

**Chance and Circumstance: General**

1. How well do you understand Chance and Circumstance as parts of the game? Are there any aspects of these that are confusing, or unclear? If so, what?
2. What do you think is the purpose of this part of the game? Why do you think we’ve included this part in the game?
3. What do you think works about this part of the game? Please provide details.
4. What do you think needs improvement in this part of the game?
5. Do you have any ideas about what might be missing from this part of the game?
6. How do you think this part of the game helps you learn Spanish? Please provide details.
7. How do you think this part of the game helps you learn about issues in the workplace? Please provide details.

**Chance and Circumstance: Chance Cards**

1. What is your understanding of why Chance cards are included in the game? Is there anything confusing or unclear about Chance in the game? If so, please describe.
2. What, if anything, have you learned from working with Chance cards in the game? Please describe.
3. Are there particular Chance cards that seem realistic to you? Please describe.
4. Are there particular Chance cards that seem unrealistic to you? Please describe.
5. Do you have any suggestions for Chance cards to include in future iterations of the game? Please describe.
6. Do you understand the relationship between Chance cards and Vida points in the game? If not, please describe your confusion.
7. Please describe what you feels works or doesn’t work about Chance cards in the game.

**Chance and Circumstance: Chance Cards**

1. What is your understanding of Circumstances in the game? Is there anything confusing or unclear about Circumstances in the game? If so, please describe.
2. Why are circumstances a part of the game, and how do they differ from Chance?
3. What, if anything, have you learned from working with Circumstances in the game? Please describe.
4. Are there particular Circumstances that seem realistic to you? Please describe.
5. Are the particular Circumstances that seem unrealistic to you? Please describe.
6. Do you have any suggestions for Circumstances to include in future iterations of the game? Please describe.
7. Please describe what you feels works or doesn’t work about this part of the game.

**Performance: General**

1. How well do you understand this part of the game? Is there anything confusing, or unclear? If so, please describe.
2. What do you think is the purpose of this part of the game? Why do you think we’ve included this part in the game?
3. What do you think works about this part of the game? Please give details.
4. What do you think needs improvement in this part of the game? Please provide details.
5. Do you have any ideas about what might be missing from this part of the game?
6. How do you think this part of the game helps you learn Spanish? Please provide details.
7. How do you think this part of the game helps you learn about issues in the workplace? Please provide details.

**Performance: Performance Rolls**

1. Do you understand the function of Performance Rolls in the game? If not, please describe your confusion.
2. Do you understand the relationship between Performance Rolls and Skill or Career ranks in the game? If not, please describe your confusion.
3. Do you understand why you are being asked to make Performance Rolls in the game? If yes, please describe your understanding. If not, please describe your confusion.
4. Do you think making Performance Rolls is an accurate way to represent a person’s actual attempts to perform in their job? If yes or no, please describe why.

**Performance: Performance Score**

1. Do you understand the function of your Performance Score in the game? If not, please describe your confusion.
2. Do you understand the relationship between your Performance Score (overall, running total) and you weekly Performance Rolls in the game? If not, please describe your confusion.
3. Do you think your Performance Score in the game is an accurate representation of your character’s Job Performance? If not, please describe why.

**Role-Play Scenarios**

1. How well do you understand this part of the game? Is there anything confusing, or unclear? If so, what?
2. What do you think is the purpose of this part of the game? Why do you think we’ve included this part in the game?
3. What do you think works about this part of the game? Please provide details.
4. What do you think needs improvement in this part of the game
5. Do you have any ideas about what might be missing from this part of the game?
6. How do you think this part of the game helps you learn Spanish? Please provide details.
7. How do you think this part of the game helps you learn about issues in the workplace? Please provide details.
8. Do you understand the relationship between Role-Play Scenarios and Vida Points in the game? If yes, please describe that relationship. If not, please describe your confusion.
9. Do you have an example of a Role-Play Scenario that seemed particularly useful or realistic to you? Please describe it and tell why it was useful or realistic.
10. Do you have an example of a Role-Play Scenario that didn’t seem useful or seemed unrealistic to you? Please describe it and tell why it was not useful or realistic.
11. Do you have any suggestions of Role-Play Scenarios that you would like to see included in the game?

Appendix B: Questionnaire 2

**Section 1: Player Background**

**Your Family’s Educational History:**

1. Have either/both of your parents completed high school?
2. Have either/both of your parents attended any college classes?
3. Have either/both of your parents completed a 4-year degree?
4. If you answered ‘yes’ to the previous question for one or both of your parents, please list the 4-year degree(s) your parent(s) has/have achieved:
5. Have either/both of your parents completed a graduate degree?
6. If you answered ‘yes’ to the previous question for one or both of your parents, please list the graduate degree(s) your parent(s) have achieved.
7. Have one or both of your parents attended any vocational schools or have they been a part of any trade guilds? If so, explain:

**Your Family’s Employment History:**

1. Have one or both of your parents ever been employed?
2. If you answered ‘yes’ for one or both of your parents, briefly describe what you know of their employment history.
3. Have one or both of your parents been fired or laid off from a job?
4. Have one or both of your parents been promoted in a job?
5. Have one or both of your parents been in a supervisor position at a job?
6. Have one or both of your parents run their own business?
7. In what industry or industries do/did your parent(s) work?

**Your Family’s Educational and Employment Goals for You:**

1. Do your parent(s) have goals for your educational and/or employment future? Do they express these goals to you in a particular way? Please describe.
2. Do you have personal goals for your own educational and/or employment future? Please describe.

**Section 2: Player Feedback**

**Educational Goal: Learning Spanish**

1. In what ways (if any) do you think the game is helping you to meet the educational goal of learning the Spanish language?
2. In what ways (if any) is the game not meeting the educational goal of learning the Spanish language?
3. Do you have suggestions for how we might address these concerns?
4. What have you learned or how have you grown in your acquisition of the Spanish language through playing this game? (Please give specific examples)
5. Can you name any specific elements of the game that have helped you in your acquisition of the Spanish language?

**Educational Goal: Learning about The Workplace**

1. In what ways (if any) do you think the game is helping you to meet the educational goal of learning about issues in the workplace?
2. In what ways (if any) is the game not meeting the educational goal of learning about the workplace?
3. Do you have suggestions for how we might address these concerns?
4. What have you learned or how have you grown in your understanding of issues in the workplace through playing this game? (Please give specific examples)
5. Can you name any specific elements of the game that have helped you in your understanding of issues in the workplace?
6. In what ways (if any) is the game helping you to meet your personal educational goals? (Please describe your personal educational goals in your answer)
7. In what ways (if any) is the game not meeting your personal educational goals?
8. Do you have suggestions for how we might address these concerns?

**Opinions on Changes in the Game:**

1. What changes have been made in the game since last semester that you consider to be positive improvements, and why?
2. What changes have been made in the game since last semester that you consider to be changes for the worse, and why?

**Personal Enjoyment While Playing:**

1. What do you like about playing the game, and why?
2. What do you dislike about playing the game, and why?

**Game as Educational Model:**

1. In what ways do you think engaging in the game is an improvement over the typical classroom model (lecture, test, repeat)?

1. In what ways do you think engaging in the game is not as effective as the typical classroom model?

**Other Comments or Suggestions:**

1. Are there any other comments and/or suggestions you’d like to make about the game?