
**Learning and teaching as communicative actions:
Improving historical knowledge and cognition through
Second Life avatar role play**

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Abstract: We examined a higher education history course where virtual role play was implemented as an assignment. The course was designed to help students gain an overall understanding of the causes, trajectory, and aftermath of the Cuban Revolution. Assignments included readings and discussions of historical essays and primary sources that were intended to prompt students to think critically about political, cultural, and scholarly debates surrounding the

revolution but also inquiry and role play. In particular, students were encouraged to set aside pre-existing opinions in favor of or opposed to the revolutionary regime of Fidel Castro and U.S. Cold War diplomatic policy toward Cuba. The theoretical framework *learning and teaching as communicative actions*, in which communication and discourse, and the interplay among the four communicative actions proposed as the basis of human understanding, guided the course. Active learning through role-playing in a constructivism learning environment and classroom discourse helped students develop a higher level understanding of the complex events by perspective taking both for and against the Castro regime.

Keywords: Role play; History; Cuban revolution; Learning and teaching as communicative actions theory (LTCA); Second Life; Virtual worlds

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1. Introduction

To support real-life learning, multimedia technologies have been used in alternate reality games such as *The Door* and *Broken Window* during which students engaged in immersive experiences that emerged from problem-based learning scenarios posed by the instructor and/or fictional characters (Warren, Dondlinger, Jones, & Whitworth, 2010; Warren & Lin, 2011). Problem-based learning holds that learning occurs best with activities that are practical, hands-on, and related to real-world situations (Barrows, 1986). Often, such learning is situated within specific environments designed to expose students to new complications and questions. These require them to develop solutions to complex problems and use their struggles and reflections from this process to help them make meaning of what they learn, thereby constructing knowledge (Jonassen, 1999). In a constructivist learning environment (CLE) such as *The 2015 Project*, a learning experience that blended direct instruction with scaffolding from computer-aided learning and a multimedia transmedia experience students constructed collaborative and individual solutions to socially relevant, ill-structured problems (Warren, Wakefield, & Gratch, 2012). It has been hypothesized by David Jonassen and others that these types of problems may be overcome more successfully by having students use mindtools. According to Jonassen (2004) mindtools “represent a constructivist approach toward using computers (or any other technology, environment, or activity) to engage learners in representing, manipulating, and reflecting on what they know, not reproducing what someone tells them” (p. 21). Thus, mindtools are expected to support cognition and knowledge construction.

Mindtools may be curricularly integrated with problem-solving components and social interactions; through this, games, simulations, and virtual worlds have been shown to provide deeper learning (Steinkuehler & Johnson, 2009). Multiuser virtual environments (MUEs) such as *ActiveWorlds* (Active Worlds, Inc., 2011) have shown promise to support such learning, especially in terms of student writing practice and learning complex science concepts (Barab et al., 2009; Barab, Warren, & Ingram-Goble, 2008). Another MUE, *Second Life*® by Linden Research Inc. has been used for simulations and training using learner and/or instructor role play. Examples include therapeutic training (Phillips, 2008), teaching border control personnel (Hudson & Degast-Kennedy, 2009), and preparation of health professionals (Beard, Wilson, Morra, & Keelan, 2009). In these three instances, *Second Life*® functioned as a mindtool – an academic companion – to train patients and professionals, improving cognition in areas of memory. In the therapeutic training for instance, patients with Asperger syndrome, a disorder that includes having social difficulties, patients were trained in recognizing social cues, and were engaged with appropriate social behaviors (as stipulated through social norms) as therapists and psychiatrists had patients work through various simulated experiences (Phillips, 2008). “The development of constructivist learning environments (CLEs) has shaped learning with computer tools and has allowed the landscape of learning with games, simulations, and virtual worlds to grow as supported by constructivist learning theories.” (Warren & Wakefield, in press).

Jonassen, Carr, and Yueh (1998), noted that technology tools should allow students to learn with the technology rather than from it. As such, technology becomes an “intellectual partner” that supports learners to express and visualize their understanding (Jonassen, 2011). One example of a virtual world simulation that functioned as an intellectual partner for students is Anytown. This simulation was built in the ActiveWorlds 3-D virtual development space for the National Science Foundation project Quest Atlantis. It asked middle school students to engage in role play as newspaper reporters to provide them with an authentic writing role and an immersive experience. Students were provided a life-like environment of an old town and were challenged to solve ill-structured problems and complete literacy activities such as descriptive essays and reading for comprehension. These writing and reading assignments were provided by virtual embedded characters with their own personalities that were intended to authentically simulate how real people might behave. The role play, which included collaborative thinking, individual reflective thinking, and writing, showed increases in the quality of students’ descriptive writing ability over a fairly short period of time (Warren, Barab, & Dondlinger, 2008).

Role play, as defined by van Ments (1983), is a form of communication that involves someone imagining being someone else in a certain situation. This requires a person to act out the feelings, words, and actions of that other or to place himself or herself in another person’s shoes or situation. The person acts out what it may be like to be and think as someone else by engaging in interaction, collaboration, negotiation, and debate (Russell & Shepherd, 2010). By doing so, those engaged in, and attentive to the role play will learn about the person or the situation which is expected to result in awareness, new skills, techniques, or attitudes.

Van Ments (1983) proposed that there are two types of commonly used educational role play. The first pertains to training and relates to practice of skills and techniques while the second deals with “changes in cognition, emotions, and attitudes” (p. 51). As we seek to foster deeper student understanding and advocate for active learning, role play is an activity that provides students the opportunity to collaborate and work together for shared understanding – for reaching consensus. It engages students in action, interaction, and communicative actions. Role play can be “highly motivating” (van Ments, 1983, p. 20), fosters student interest (DeNeve & Heppner, 1997), and “provides students with engaging and active learning experiences [and] (...) exploration of real-world issues” (Wills et al., 2007, p. 1093). It also provides students the opportunity to reflect on topics involving conflicts and problems. Stories, such as those commonly used in role play, facilitate meaning making, help us “learn about the past, [and] understand human actions and intention, create identity, and understand our experiences in the world” (Jonassen, 2004, p. 93).

Our role play research conforms to the second type, as mentioned by van Ments (1983). That is to say it deals with changes in cognition, feelings, and attitudes brought forth through communicative actions geared towards learning. Benefits of this type of role play in a virtual environment have not been explored through research to the same extent as role play training. In our study, we examined a higher education history course in which students read about historical events and conflicts in the ‘real past’ of the Cuban Revolution. The course was designed to help students acquire an understanding of the causes, trajectory, and aftermath of the revolution as reified in various media. However, assignments also included readings and discussions of historical essays and primary sources intended to prompt students to think critically about surrounding political, cultural, and scholarly debates. This was expected to move them beyond accepting

textbook claims to truth and instead to allow students to challenge these and construct their own understandings about the events both individually and in small groups.

In particular, students were encouraged to set aside their existing opinions regarding the revolutionary regime of Fidel Castro and U.S. Cold War diplomatic policy toward Cuba. In one assignment, students were further asked to produce scripts in preparation for their active role play. This would take place in a life-like 3-D virtual world simulating the real past and expressing their understanding through these stories in follow-up debriefing sessions.

3-D computer generated environments allow for screen capture – machinima. Our approach was to not only have students role play but also to expose students to their digitally captured role play afterwards and have them engage in classroom discourse in response to these videos. This was expected to allow students to further summarize many of the complex perceptions and details involved in the events they had studied and role-played and the behaviors of the characters they took on. Van Ments (1983) noted that post-play debriefing with peers and instructor is a necessary final step of role play. Through the active role-playing activities and reflective discussions, we anticipated students would develop a deeper understanding of the multifaceted political and social events that took place throughout the revolution.

2. Theoretical framework: Learning and teaching as communicative actions

Learning and teaching as communicative actions (LTCA) is a pragmatic theory first posited by Warren and Stein (2008). Its main objective is to advance human communication towards instructional and learning goals through intersubjective mutual understanding (Wakefield, Warren, & Alsobrook, 2011). At its heart, the theory proposes that it is human communication that guides learners and instructors through educational sequences toward reaching and improving understanding. LTCA theory builds on German philosopher Jürgen Habermas' pragmatic theory of communicative action (Habermas, 1981, 1984). The four communicative actions identified in Habermas' work form the foundation of the LTCA's communicative speech acts: normative, strategic, constative, and dramaturgical actions. Learning experiences are pragmatic and can be applied in daily educational practices. We see they should be designed not from only a single perspective such as those put forth by Skinnerian Behaviorists or separately by social constructivists [but] as a rational curriculum that recognizes the complexity of any learning experience. Thus, academic tasks, assessments, and discourses should be designed to encourage understanding from myriad perspectives. Learning stems from such activities and, principally, from the discourses that attend each (Wakefield, Warren, & Alsobrook, 2011, p. 568).

To better explain how these speech acts, in concert, helped learners in a higher education history course engage in perspective taking and learn about the truths constructed within both the perspectives against as well as for the Castro regime, we provide the following definitions and examples.

Normative communicative actions include knowledge that conforms to understanding generated through past experiences (Warren, 2011) and are both constructed and accepted through social consensus. These are negotiable and evolve either gradually or rapidly because societal realities change over time. In educational settings, these acts may include statements in a course syllabus that has been established as a result of past course discourses around due dates, expectations for success, and other

norms. For example, this course's syllabus included the norm that students should engage in the virtual world role play in order to be successful in the class. The instructor also verbally expressed other appropriate behaviors in class as part of establishing such norms; however, these remained open to critique and modification based on discussions with students. Such communicative acts are commonly expressed in terms of what a student *should* do.

Strategic communicative actions are the most commonly used actions in education today. Such actions conform to knowledge directing the learner to commit a particular act or reiterate a societally accepted knowledge that is often codified in educational standards that lead to assessment. This reified knowledge is then distributed through directions from the instructor or in a particular medium, such as, textbooks. In this case, the teacher held lectures and asked students to read textbooks, primary source materials, and secondary source materials, all of which provided this type of communicative action. The validity of such instructional acts may only be accepted or rejected and are regularly expressed in the imperative: what students *must* do.

Constatative communicative actions unfold through classroom discourses. Discourse, according to Habermas (1981, 1984), is a give and take of validity claims and therefore may be considered a higher level communication. Constatative communications allow new understandings stemming from arguments among students regarding the truth of a claim made by one of the participants in the learning experience (i.e. Fidel Castro was heedless). From the discourses that emerge in these discussions, agreements emerge that are accepted by participants as they construct shared understanding regarding the truth or truthfulness of the claim. The history instructor's class met twice a week and one of the sessions included lecture. In preparation for the second session, students were asked to read their textbook and assigned papers, engage in inquiry to further research for evidence and counter-arguments, and come prepared for class discussion. In this second session, students' understandings of the materials were shared, exposed to critique, argued, supported, and/or confirmed (validated) as each student presented their own claims to truth and sought support for their claims and social consensus among learners and instructor.

Dramaturgical communicative actions allow learners to express their inner subjective world in the objective world. Such individual understandings are often expressed through reflective or artistic means and identity-based truth claims through statements such as "this is who I am and what I know." In our research, students were asked to take sides for or against Castro in the era of the Cuban Revolution. They worked collaboratively in groups to write role play scripts based on their readings, inquiry, and group constructed understanding of the revolution's complex political and societal events. Further, they imagined the virtual scenes in which they were to role play. They shared these visions with a technology specialist who developed the environment from students' guidelines. Embodied in virtual avatars, students later played out the narrative scenes that were captured on machinima – video of the virtual environment. These were edited and shared in the classroom during follow-up debriefing sessions and then also shared on the Internet, allowing for not only classroom discourse, but for the public to comment on student work and perspectives. Dramaturgical activities support the learning process by creating opportunities for reflective critique and internal change of knowledge states and that is expected to contribute to meaningful learning.

3. Course design

The course was a face-to-face lecture course that examined the backdrop, actions, and legacy of the Cuban Revolution of 1959 from a multi-disciplinary standpoint. The overarching goal of the course was for students to gain an increased overall understanding of the narrative history of the Cuban revolution. It especially focused on its causes and aftereffects through interpretation and analysis of historical essays, primary source materials, and videos (Rankin, 2011).

The class met two days per week and the instructor would typically provide a narrative lecture one day per week. Students then completed reading and writing assignments based on the material covered in the lecture. During the second meeting, the instructor facilitated a formal class discussion focused specifically on a critical understanding of the assigned readings. Due to the polemic nature of the Cuban Revolution, scholars, political activists, and others have produced an extraordinary array of materials reflecting a wide range of strongly-held opinions. Often, students begin the course having already formed their own opinions regarding the revolutionary policies of Fidel Castro and the U.S. reaction to the Cuban Revolution. Reading and writing assignments therefore included multiple sides of complex debates and encouraged students to both critically and with an open mind approach their analysis of those debates.

In addition to discourse and written assignments, students participated in a role play assignment. The role play in the Second Life® virtual world served as the culmination of these weekly critical thinking exercises. This included collaboratively scripting story, classroom discourses that led to shared understanding about what form the machinima video would take, and reflective activities around their role play. The goal of the virtual role play activity was to enhance learning and to promote critical thinking bringing about a deeper understanding of learned concepts. Our research looked to shed light over how the students perceived the readings, discussions, and the role play exercise and how these activities contributed to their overall learning and understanding of the course subject.

4. Research methods

4.1. Setting

This Institutional Review Board approved study took place at a university with a population of approximately 18,800 students that supports a large number of undergraduate students. The Carnegie Foundation classifies it as a research university with high research activity. The campus is situated in a suburb within a large metropolitan area located in the southern United States.

4.2. Participants

Eight undergraduate students, including five males and three females, participated in the study. Additionally, one female student auditing class did not participate in the role play assignment, but participated in the final debriefing sessions as part of the research study. Of the students completing the assignment for credit, four were juniors and four were seniors. Five students had declared their major field of study as Historical Studies and three as International Political Economy. Two students were of Hispanic descent and half of the students had taken previous courses in Latin American studies.

4.3. Research question

We hypothesized that students in this experimental history course would develop a deeper understanding of the complex political and social events that occurred during the historic revolution. This would stem from their multiple sources including their readings about the causes, trajectories, and aftermath of the Cuban Revolution, immersion in the learning materials through active role-playing activities, critical thinking, and engagement with communicative actions throughout the semester and during debriefing sessions following the role play.

4.4. Research design

4.4.1. The assignment

Students were given instructions at the beginning of the semester in anticipation of completing a role play assignment. The syllabus included the description of the assignment and specified that the students would complete historical role play simulations using Second Life®. Of critical importance to the project was the requirement to compile an annotated bibliography. This part of the assignment asked students to examine their source material carefully and consider how primary sources and other historical literature should be incorporated into the creative project. The annotated bibliography thus formed the foundation for the students' role play scripts. Instructions further stated that students must create a screen capture of a Second Life® role play scenario presenting either a pro-Castro or anti-Castro theme related to the Cuban Revolution. The machinima capture would be presented in the final weeks of the semester and was to be accompanied by an annotated bibliography of relevant historical sources. The assignment made up 20% of the total course grade.

Half-way through the course, students were introduced to the virtual world of Second Life®. During a classroom session, each created a free account that provided them with avatars (virtual representations of self). The session further provided students with training regarding maneuvering their avatars in the virtual environment and finding the university island where the role play would later take place. A technology specialist facilitated this training.

The instructor then asked students to form groups and develop short, succinct scripts for role play in the virtual environment. These were to be based on their readings and the discussions they had held in class. One group took the pro-Castro perspective and the other group took the anti-Castro view; students were free to develop the specific content of the Second Life® scenario according to their own creative preference. Their only limitation was not to "kill" Castro in their role plays. Although it was not required, students were encouraged to join the group that represented the counterview of any pre-existing opinions they already held. The idea was that these two groups should achieve understanding of the different norms; that is to say that depending on whether they were for or against the Castro regime, their viewpoints would differ.

Students' scripts required consideration of the cultural, political, social, economic, educational, and historical perspectives of the Cuban Revolution. The role play script length was limited to an activity that could be performed within a ten-minute time frame. This was why students had to closely manage their time and include thoroughly considered and meaningful content. The time limitation was intended to force students think critically about the content but also so to include only what was most vital, but also

because the role play was to be captured on machinima – screen capture of a game or virtual world, and be uploaded to YouTube as a movie for later classroom viewing and debriefing sessions.

4.5. Technology support

Towards the end of the semester, the two groups of students met with the technology specialist separately, in a campus computer lab, to role play with their avatars. The scripts guided the students' role play in the virtual world of Second Life®. The technology specialist had facilitated the 3-D construction process in the virtual environment. The burden of designing a full virtual environment for the role play scenes was thus removed as the technology specialist built the scenes the students had envisioned in their role play scripts, given their guidelines. This had allowed students to focus on their story script, and during the role play on the design of their virtual characters, rather than on learning the technology.

The technology specialist guided and supported the students' role play, encouraging them to work on their avatars' shape and clothing to allow the opportunity to design them to look like they had envisioned given the particular time, place, and scenes. This allowed for 'play' – for students to have some fun with their assignment prior to the role play activity. Students, embodied in their virtual avatars, then dramaturgically role-played in the 3-D environment and their role play was recorded as both audio and machinima.

The machinimas were later edited by the technology specialist into videos of ten minute or shorter that were uploaded to YouTube for later classroom debriefing and wide availability for public viewing and critique. During the two classroom debriefing sessions that followed, live video was further captured as students watched each other's role play machinimas and engaged in classroom discourse.

DeNeve and Heppner (1997) noted that "Role play may entail situations that could never happen in reality". One of the groups set their scene in the White House where president Obama in dream scenes discussed with past presidents their various attempts and the reasons for assassination attempts on Castro. The other group set their scene in Cuba as Castro initially holds a speech from a balcony to the people, then a second scene as Fidel and his brother Raul meet with a Russian agent to discuss planting Russian missiles in Cuba, followed by an unsuccessful assassination attempt.



Left: From the roof top scene in *Castro Salvado* where Raul, Fidel, and a Russian agent meet. Right: From the White House scene *No Country for Old Castro* where President Obama listens to former President Reagan.

4.6. Data collection methods

Debriefing sessions during which the students' machinimas were viewed and where all students and the instructor participated, were video-recorded. Video recordings included a total of one hour and fifty minutes of classroom discourse captured during the two class sessions. Three male students and the instructor further participated in semi-structured private interviews. Students were interviewed after the course had ended by one of the researchers, the instructor after the second debriefing session. The interviews were digitally recorded. Interviews ranged from twenty-two to forty-four minutes in length. All video and audio recordings were transcribed to Microsoft Word™.

4.7. Data analysis methods

Analysis of data gathered as video was guided by the five stages of critical ethnographic methodology as described by Carspecken (1996) where researchers first seek to identify the deeper underlying connotations through developing initial reconstructive meaning fields, thereafter engages in a dialogical data generation including reconstructive horizon analysis development. This last mentioned process includes identifications of foreground validity claims in where the researcher looks for what is emphasized; near background validity claims where the researcher is looking for instances of knowledge, beliefs, and values; and remote validity claims which includes acts of separating self from feelings (Carspecken, 1996). Three researchers reviewed the data conforming to triangulation to avoid bias.

Audio-recorded interview data was analyzed using the two-step cycle coding process as described by Saldaña (2009). This included a first cycle of Initial Coding; an identifying performance geared towards abridgment of data (Strauss & Corbin, 1998). In this process, utterances are spontaneously identified and coded in brief phrases for further exploration. In the second cycle, Pattern Coding (Miles & Huberman, 1994) was used. Here phrases from the initial coding were examined, compared, and contrasted with phrases captured from the data of each of the interviewees. Both the ethnographic and interview qualitative data was then reviewed and analyzed as a whole. This process allowed the researchers to form more holistic and meaningful sets of coding aimed at describing and developing themes as they found explanations and relationships.

5. Results

5.1. Qualitative findings

Codes from the data were combined into bigger categories from which themes emerged throughout discussion among the researchers. The codes and categories represent both the interview data and the ethnographic data. Merging both data sets brought forth a richer material. The four themes that emerged related to learning and included Learning through lecture & discourse, Learning through inquiry & design, Learning through collaboration, and Learning with mindtools and are listed in Table 1.

Table 1
Themes and related categories

Themes	Related Categories
Learning through Lecture & Discourse	Strategic, normative, and constative communicative actions between facilitator (instructor) and students.
Learning through Inquiry & Design	Dramaturgical communicative actions, critical reflection, assignments, research, freedom to shape design, role play, enjoyment.
Learning through Collaboration	Group work: issues and affordances.
Learning with Mindtools	Technology support, technology adoption, technology issues & affordances.

6. Thematic outcomes

6.1. Theme 1: Learning through lecture & discourse

This theme is reflective of the categories, Strategic, normative, and constative actions between facilitator (instructor) and students and how lecture and discourse supported student learning. The class started by following a format most students were familiar with: The first of two weekly sessions included lecture and assigned readings from the textbook and/or from various primary and secondary source materials in preparation for the second session. Strategic communicative actions underpin knowledge construction and allow instructors to present learners with a starting point from which they may further investigate and appraise established facts and truths. These actions provided the foundations for further classroom constative discourse during the second weekly class session. To nudge students' understanding and start discourse, the instructor would ask such questions that would contribute to position taking and examination from numerous perspectives. These types of questions are ill-structured, complex, and multifaceted (Jonassen, 2011). The questions would facilitate discussion and encourage argumentation. For example: "*How should the American presidents have dealt with Castro's decision to associate with the Russians?*" "*Why did the Castro assassinations fail over and over again?*" George noted about this type of communication:

(...) and then someone would start it and we would just all give our impressions of what we thought each reading was about. (...) I liked how she kept discussion moving. There was never a boring class.

This constative communication allows students to exchange truth claims – their ideas of what was going on. George continued:

[We discussed] the different things that were happening in Cuba, coming up to the revolution. It was a lot of things that we all had our own ideas about. So it wasn't so much where we were only questioning her. She was good about not only being able to answer any questions we had, she was able to give an alternate explanation (...) alternative theories and stuff if we have them and you know with a subject like this there are a lot of things that you interpret...

When assigned the larger role play assignment, Leo noted that the instructor had used a “sandbox approach” to opening up the project giving students freedom to be creative past the initial approval of their design. He mentioned:

She was very open with essentially everything about the project roles and she just said here's your project. Here's the very broad goal, you know. Tell us the anti-Castro or anti-US side of the problem that is going on, since you know the past fifty years, and I was like OK, so is there a rubric?

He was used to being given the exact measures of what was expected, and so it made him feel uncomfortable not to have this support: “I kind of was a little scared of having this amorphous very weak structure, you know, project where it was just like – Ok, here you go, do this!” Leo went on to say:

In my entire university career we've always, well I have always, had professors that want everything done their way and you know didn't leave any room for the actual student involvement. Basically, the university in my mind is kind of an assembly line where you don't have any input. All the input is being input into you, except maybe in more creative fields like the arts and technology (...)

When assigned the virtual role play assignment, Emma had gone to her professor and said “I don't like technology, I don't (...) I'd rather write a paper than do this project.” Normative communicative actions may be negotiated as oppose to the strategically communicated actions. In this instance the instructor had not been open to negotiation and at the end of the semester Emma was pleased about this as she generalized for the group: “I think it was just kind of the fear of the unknown (...) we dreaded the moment when we got to the computers (...)” John added: “I think at the end all of us would rather have done this project than written that ten page paper.” At the end of the course Leo, had also come to appreciate the role play experience and the discussions that had allowed for students' viewpoints. He said “(...) definitely refreshing to walk out of this classroom feeling like I had a part in discussing history.” The ability to participate in these discussions had been facilitated through students' inquiry into the topic, which leads us to our next theme.

6.2. Theme 2: Learning through inquiry & design

As indicated by the categories Dramaturgical communicative actions, critical reflection, assignments, research, freedom to shape design, role play, and enjoyment students found that the role play activity contributed to a deeper learning and a ‘fun’ experience. In the process of developing their scripts, several students conducted research from not only their textbook, the primary and secondary source material, but also used search engines to explore what was documented on the Internet. Emma, who was in the anti-Castro group

building a script that included various assassination attempts on Castro, said that she had branched out from the general reading materials. Using Google she had been able to find “some of the latest attempts” that had been made to try kill Castro. The UK Guardian, for example provided her with an attempt from 2000, which she incorporated into the script.

Students found the role play assignment different from assignments they would normally do in their history courses where writing papers are considered the norm. Leo noted about the technology assignment:

[T]echnology is lacking in the academic setting, that is, you know, unconventional. People that came before us wrote papers and they wrote papers. They just emulate what they learned. That is kind of the reason why a lot of people view the education system as being stagnant because there is no creativity.

While students thought that reading articles and primary source materials was fine, they also thought that being able to do something other than reading and writing papers in their learning eased up the learning process. After having gone through the role play activity Emma noted:

We had a blast. We laughed and I mean we made our characters look like all kinds of freaky and we just played around and had a great time and mocked each other for not being able to walk right or open doors and that kind of stuff.

Matt concurred:

It was cool to apply all that we had learned and then kind of recreate a situation with the different characters and then try to kind of do a scene of the Cuban missile crisis and an assassination attempt and show one of the speeches that Castro is giving – put them all together into one – that just shows a lot of Cuban history right there!

Both in the classroom discussions and in the individual interviews, students expressed their appreciation of being allowed the creativity of the role play in their learning and how it enhanced the experience. The dramaturgical communicative actions of creating the scripts and expressing understanding through role play in a simulation was experienced as “fun”, something that students returned to over and over again and which they felt facilitated the learning process. Norman (1993) has noted that “We tend to remember novel and unexpected events better than regular, recurring ones” (p. 131) and that role play “(...) provides highly motivating and memorable lessons” (p. 36). In one of the classroom debriefings, as students engaged in constative discourse, students commented on the enrichment they had experienced through the role play. Chris for instance said:

(...) you got a feel of the way that they were feeling and doing it so you get, you get more of a personal feeling for it so you learn a little bit more about it that sticks a little bit more than just reading a paper. You kind of feel it as you are writing it but then – it is more like your opinion when you are writing it – not really getting the feel for it (...) and Second Life did kind of give a more overall feel of what was going on.

Students agreed that the assignment was different and entertaining and thereby also refreshing and more memorable, with George noting:

(...) since you're getting to have a little fun with it you, you just kind of just unintentionally just process it a little bit quicker and you kind of grasp more of the information than just trying to write a paper (...)

The role play functioned as a dramaturgical outlet for students and the debriefing sessions as an outlet for students to further express their intersubjective understanding among peers of learned concepts. Here students expressed their understandings, presented how they had come to new insights, and were able to see the historical events through new perspectives. They further sought validation for their claims in these discussion sessions. An example of such communication, taken from after the pro-Castro group's debriefing session is when Matt and Helen who were in the pro-Castro group talked about the themes they had tried to capture in their groups' role play scenes and how thinking about Castro's pact with Soviet from Castro's perspective had broadened their views:

Matt: We wanted to emphasize [the theme of] Cuban unity and that is much what Fidel stood for with the whole revolution (...) another [theme] is going to be Soviet influence and that's not the biggest point of it but it shows just that they wanted to go against the American influence and they didn't want another imperialistic administration.

Helen: Yeah, Soviet was just a really good ally to have. It was something like "We're definitely not hard core communists, and we wouldn't be like communists like Russia", but... it would be like a communist ally "you hate America – we hate America too".

Leo who had been in the anti-Castro group noted a differing view:

Leo: Well, to me it seemed like it communicated that Fidel was kind of heedless in going into an alliance with the Soviet Union and I think he really – well maybe he did but we obviously don't know this – but the gravity that would come with accepting Soviet missiles into Cuba and the increased scrutiny of the United States would bring retaliation to that (...) I wonder if he really understood or was it a quick fix? We talked a lot about how there was a... he wanted to draw the heat off some domestic issues in the country. But I think that in the long run he may have shot himself in the foot.

Instructor: (...) it does seem to be a very, very fast decision: What can I do?

Stories, such as the role play the students engaged in, function as effective instructional support systems and facilitate learners' problem-solving ability. Perspective taking of role play is an important activity as students bring with them distinctly different truth claims to the experience allowing for arguments.

For role play with story, it is essential that there is inquiry, and social interaction. Students need to be provided choice and opportunity to get involved – get into the actions – elaborate with both their story and with the roles they are taking, and engage in reflective activities where they, following the role play, can ventilate their thoughts, impressions, and their learning building social consensus. The role play allowed students to explore the implications of historical events – immerse in the history while also have a bit of fun through active learning. The instructor provided students sufficient normative understanding that they could take sides and conduct role play in the virtual environment, but also allowed students freedom with choice letting students shape their own story. Students' inquiry and exploration of topics and collaborative scripting of story, the activity, and their debriefing and reflection activities contributed to a deeper immersion

with the topic – one that students found fun and engaging while they also critically could reflect and take with them a learning that they were proud of and would remember.

As the anti-Castro group looked at the various assassination attempts of Castro over time from the perspective of the several American presidents, their understanding for how the U.S.'s position in the world coupled with the policy priorities of the various administrations had changed and thereby also the reasons behind continuing the anti-Castro relationship changed, they started making the connections that the instructor had intended for them make. Leo noted:

The presidential attempts they weren't just, you know, something about U.S. Cuban relations. They were how the U.S. kind of related itself to the world (...) and we saw that we were sponsoring terrorism while on the other side of the world we were against it. So it got to the point where it wasn't just about U.S. and Soviet relations and U.S. and Cuban relations. It was where U.S. was being hypocritical in its own, ... upon hypocrisy.

John explained that listening to and reading what Castro had done as far as reform implementation right after he came to power helped him individually understand that everything is not just black and white: "It was good to see that as oppose to just judge without knowing what he has done." Not all learning, however, had been set into place to occur separately, leading us to the next theme.

6.3. Theme 3: Learning through collaboration

As indicated through the category Group work: issues and affordances many of the students found that collaboration in groups was challenging. As they were presented with the ill-structured task of working in small groups, collaboratively, developing role play scripts, setting a scene from within a specific time period of the revolution, students easily self-selected into groups. John, for instance, noted his choice to be in the pro-Castro group with "for me that was like I just wanted to put myself in the different shoes because I guess my view in real life would be more like anti-Castro, and so I was like... Oh well, I'll step..., I'll try somewhere else, and I'll go at it from the pro-Castro view."

Working in groups, however, had its challenges. Such included being able to schedule time to work together and get the team members' creativity going. In the setting of history courses, group activities are not commonly the norm. Rather, students in history courses listen to lecture and individually write papers to express their conceptual understanding. The role play assignment, which called for more active learning thus resulted in group members' expression of mixed feelings. These included feelings of having pulled an unequal load working on the script as other group members lacked time, lacked motivation, or otherwise felt estranged with the assignment. Or, other group members felt that they had let down their group by being unable to attend meetings due to other commitments, while also praising the others getting the project completed. Members from both groups also mentioned that, due to scheduling issues and the "difficulty with getting the creativity going," there hadn't been much productive communication until at the very last minute, a few days before the scripts were due. Both groups appreciated the time allotted in class to brainstorm the plot of their story.

Without collaboration and team play the assigned project, which involved students' getting together in a computer lab to role play their scripted stories, would not have been successful. While students initially had felt that technology was going to be the main challenge, this turned out not to be true. This leads to the fourth theme.

6.4. Theme 4: Learning with mindtools

As indicated by the categories Technology support, technology adoption, technology issues & affordances role play using computers allowed learners to create models. Jonassen (2011) noted that among the many reasons why we should engage “students in modeling what they are learning” (p. 306) is that it “engages critical thinking about the ideas as well as contributing significantly to conceptual change” (p. 306). Mindtools – computer applications – he further noted, function as intellectual partners that allow learners learn with the computer rather than from it and computers thereby “help learners to articulate and represent what they know (not what the teacher knows) and for reflection on what they have learned and how they came to know” (p. 306-307). Using the virtual world of Second Life®, working collaboratively, thus allowed the students engage in a CLE environment learning with the help of the computer. Students, however, were not familiar with Second Life® and many were reticent to embrace the project at the beginning of the semester when it was first introduced. Van Mentz (1983) further noted that “[o]ne of the most common causes of failure in running role-plays is making them too complex” (p. 69). Using technology such as Second Life®, which has a steep learning curve (Smith, 2009) may intimidate learners (Warren & Wakefield, 2011). To keep the assignment relatively simple for students, technology support had been put into place as most of the students admitted being low on the learning curve in terms of use and construction of a virtual world experience. John said he thought he’d hate the project when he first heard of it:

I don’t play videogames or do virtual reality or anything. I stay away from all that stuff so I was like ‘Oh great! I’m going to have this nerdy system program on my computer and my friends are going to pen this up and go like why are you playing Second Life?’

Helen had mentioned the project to her friends early on and they had noted in astonishment: “Wow, this is really super high tech!” However, after her group had figured out what they wanted to do with their story and script and that, further, technology support was going to be made available to them, both she and the other group members had felt better about the project. She said: “We didn’t really have to do like a lot of complicated stuff. We decided to focus in on the actual content.”

The technical support thus helped the students to approach their thoughts about the Cuban Revolution creatively and the reading and discussion assignments prepared them well for the analytical portion of the Second Life® project. In both classroom discussions and in individual interviews, students commented positively on the benefit of having had a technology specialist available. Emma, for instance, mentioned: “Just knowing that we have her there to back us up and be able to show how to do anything and help us through the thing, was really reassuring.” Matt had initially questioned how his group was going to handle all the technology and especially filming the role play. In the classroom debriefing, he noted about the assignment “It was definitely something that I was kind of skeptical to at first but then it ended up being enjoyable and not as complicated as I usually find technology”.

A lot of the positive feelings expressed after the projects related to students’ feelings of having been supported with the virtual world design by the technology specialist. They also appreciated that this was another student – a more experienced and close peer – someone who understood the learning curve of the students but who also was able to have students participate in the design at a level they would feel comfortable with. For instance, as students took turns with the role play and the technology specialist was

capturing the play on machinima, students had to do multiple retakes and one of the group members always acted a director communicating between the technology specialist sitting in one room and the role-playing students sitting in the adjacent room. One of the students mentioned that a group members who initially had seemed bored and uninterested with the assignment, very much livened up when given the director role.

The role of the virtual world became that of a mindtool for students. Students were able to place themselves in the shoes of their simulated characters in the virtual and thereby model through role play the real-world people creating representations. Student feedback at the end of the semester was overwhelmingly positive to the implementation of an assignment that included technology. Leo succinctly noted:

Where the university system, especially in the United States has improved as far as technology – it is not using the technology for the learning processes they are using it for administrative, clerical, you know, (...) as access, where you are going to the computer and you go to electronic journals. (...) it is not being tapped into its potential. But Second Life®, kind of pioneers in this. I think machinima could definitely be used for projects.

7. Discussion and conclusion

One of the benefits with the role play strategy ties to the fact that students would study not only the past, which was unfamiliar to them, but also a different culture, equally unfamiliar to them. Role play, in this sense, helped students experience a problem “under an unfamiliar set of constraints in order that one’s own ideas may emerge and one’s understanding increase” (van Ments, 1983, p. 19). All of the students participating in the course were raised in the United States, having been exposed to only a generic narrative of the history of the Cuban Revolution. Since most of the students were young (born after the Cold War), the urgent nature of U.S. anti-Communist attitudes that prevailed in the 1960s-1980s was rather foreign to them. Certainly few of them had considered how and why resentment toward the United States was so prevalent in Cuba before and after the revolution. The role play allowed the students to step into a different regional culture, but also an alternate temporal culture as well.

Including 3-D role-play design and action, coupled with discourse, provided an innovative way for the instructor to teach and gave the students freedom to shape their story. Students had to not only engage in inquiry, check facts, and read their strategically assigned reading; they also had to think deeply and thoroughly understand the subject they were studying to be able to produce succinct role play scripts. The majority of students stated that role-playing in the simulations caused them to develop a deeper understanding of the subject matter, particularly when compared to traditional course assignments such as formal papers and presentations. Furthermore, viewing the final projects as a class in the last weeks of the semester was fundamental. Students enjoyed viewing the videos and each group engaged with the other in active discussion and commentary after the video was shown.

In our study, we found that active, situated role play learning combined with dramaturgical expressions – helped students immerse at several levels. This was an assignment that was first met with skepticism but that was later embraced and therefore included better interaction with the course materials through communicative actions during classroom sessions, critical and deeper thinking, and perspective taking. Students’ understanding became evident in their verbal exchange of constructed truth claims during

the classroom debriefings where their machinimas were reviewed. Though students had felt that it was difficult and took quite a bit of thinking to select, merge, and abbreviate the readings they had gone over into something short and appropriate for the role play, they had also found the activity new and interesting. Several of the students stated that it was interesting to apply all the readings into a project and 'act it out.' Though group work was challenging and not the norm in a history course, they enjoyed the activity, which allowed them to place themselves into the shoes of real-world Cuban and U.S. leaders. Students found pride in their work and enjoyed the fact that they could show their family and friends their work through the created YouTube videos.

Students not only became immersed in the materials during the role play. During the classroom debriefings, the group's choice of scenes to play out were also discussed and commented upon. Any thinking process "is grounded in perception of physical and social experiences, which can then be comprehended by the mind. What the mind produces are mental models that explain to the knower what he or she has perceived" (Jonassen, 1991, p. 10). During the classroom conversations it was evident that students had come to new understandings through immersion in the learning materials. Through their role play and classroom discussions, students were allowed to consider the two perspectives and at a high level that may be viewed as critical thinking. Such perspective taking, for and against the Castro regime, allowed intersubjective truths to be derived and new truths to be constructed by students. Controversial pro and anti-Castro sentiments have played an important role in the trajectory of the Cuban Revolution, particularly with respect to U.S. foreign policy. The role play activity reinforced this notion and helped students grasp a more nuanced understanding of a very complex issue.

There were several components of the course and the Second Life® assignment that came together to make the project successful for student learning. The combination of lecture, reading, analyzing, and discussing various perspectives of the Cuban Revolution throughout the semester exposed students to new ways of thinking and helped students to frame new and interesting sets of questions as they considered historical themes that arose each week. Students who began the semester with strong anti-Castro feelings gradually became more open to alternate interpretations of the Cuban Revolution. They grew to understand the nuances of Cuban government policy after 1959, particularly when placed within the context of hegemonic U.S. Cold War diplomacy. Similarly, students who began the semester viewing Fidel Castro and Che Guevara as Marxist heroes were exposed to stories of human rights abuses and autocratic policies that called into question the heroic interpretation of many revolutionary leaders. Many students were surprised to learn the extent of U.S. intervention throughout Latin America in the twentieth century and they had been unaware of the aggressive campaigns initiated by U.S. leaders to destabilize Castro and the Cuban Revolution. The class assignments helped them connect those trends to the Cuban government's turn toward dictatorship. Also, several of the students had not considered the costs associated with the Cuban Revolution in terms of civil liberties.

Here, LTCA theory guided student learning through role play, which in itself is a form of communicative act. This theoretical perspective posits that communication, inquiry, critical thinking, and the interplay among the four main communicative actions (normative, strategic, constative, and dramaturgical communicative actions) function as the basis of human understanding. Further, students became stakeholders in their learning and were provided support and choice through classroom discourse and learning activities. The active, situated learning through role play in the virtual environment functioned as a mindtool and helped students develop increased understanding and appreciation for the complex events that occurred during the revolution. They actively

reviewed the cultural, political, social, economic, educational, and historical perspectives provided from both sides of the Castro argument. In order to understand what occurred historically, students needed to understand, from both perspectives, what truths can be constructed and defended within each. Taking sides, scripting a story, and conducting role play in a virtual environment were first viewed with skepticism by students.

However, as students learned their activities were being supported and they could fully engage in story, concept, and elaboration of the scene of their historical story they became deeply immersed in the learning materials and activities. In classroom reflective activities and in individual interviews, students reported that they appreciated and enjoyed the opportunity to engage in critical thinking and deeper reflection through the role play, something that they also found would be memorable as they could visualize to their understanding of the larger events going on during the course of the revolution.

Although, our qualitative study provided a way to merge ethnographic and interview data, it is limited by our relatively small sample size. It does, however, share a picture of students' lived-in-world experiences of using role play in a simulation in the educational setting. Explanations, we need to remember, are by nature incomplete. Phenomena can be explained in numerous ways. The goal with our study was not generalizability or a study that may be scaled, but instead to provide a story of this case and allow the reader to draw from and apply lessons as they deem fit. To provide as complete and transparent a picture as possible, we included both individual student reflections and group discussions as shared during class time and individual students' and the instructor's reflections during private interviews. For a future study, it is advised to include re-visiting students and conducting follow-up interviews after six months or longer, to assess retention of learned concepts.

Largely, our research contribution provided valuable information for researchers studying implementation of communicative actions, learning through discourse, and virtual role play implementations within the educational setting as tools for learning. Our findings may guide instructional designers and instructors alike when considering implementation of such assignments.

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