

## *How Tabletop Role Playing Games Affect Student Academic Performance*

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### **Introduction**

Although the modern tabletop role playing game (RPG) movement began in 1974 when TSR published the first commercial RPG *Dungeons and Dragons*, it has been only less around ten years since RPGs have begun to be taken seriously by the academic community. Scholars and teachers alike are only now beginning to look at RPGs as instructional tools, works of art, and means of self-expression and representation. Lately, there has been a quest to discover how online games allow players to explore otherwise hidden parts of their persona, how shooting games integrate physics into their designs, and how RPGs can be considered as interactive narratives. According to Quijano (December 2007), when students play RPGs, they “take the role of characters in a story, and together with the teacher (or game master) they create a cooperative narrative while following a system of preset rules.”

Currently, there are very few articles or books dealing with role playing games as narrative media, interactive simulations, or potential instructional resources. This paper will focus on role playing games as interactive narratives and as potential language classroom resources, and will specifically demonstrate that student exposure to RPGs results in the amelioration of the second and foreign language acquisition process.

### **Statement of Problem**

Student’s attention spans have become increasingly minuscule. This has repercussions in education, specially in fields related to language and literature, where students are expected to engage in readings of various lengths. The students’ losing interest in their readings often translates into poor academic performance. Games, however, seem to manage to grasp and keep the attention of the newer generations. As recent books and articles on the subject have recently shown, educators have noticed changes in students’ leisure time activities. Students are spending more time playing passive, text-based games such as MUDs, MOOs, and

RPGs than ever before. The question remains: do these games, specifically RPGs, have any kind of impact on students' academic performance, and if so, what is the effect?

### **Purpose of the Study**

This paper will study how the integration of Tabletop Role Playing Games used as collaborative narrative literature in the ESL curriculum affects the student academic performance of college students.

### **Justification**

If the use of role playing games in the ESL classroom does, in fact, improve students' academic performance, RPGs could be integrated into ESL classrooms island-wide in order to enhance student competence in the target language.

### **Review of Literature**

#### **Tabletop Role Playing Games as Interactive Narrative**

There are many definitions to the term 'story'. Gordal (2003) states that "a story is a sequence of events focused by one (a few) living being(s); these events are based on simulation of experiences in which there is a constant interaction of perceptions, emotions, cognitions, and actions" (p. 130). This definition of 'story' can be applied not only to a published narrative, like *The Chronicles of Narnia* (2001), or to literary classics, like *Tom Sawyer* (1876). This definition of story includes media representations, such as movies, televised shows, and games that fulfill the requirements stated above. This does not mean that all games are stories. In fact, the majority of games played by children and teens, such as basketball, tag, touch football, and the majority of video games cannot be considered as narrative, as they lack elements of cognition, character emotions, or the most basic of all: a sequence of events. Tabletop role playing games, on the other hand, fulfill all the requirements of a story. These games have a sequence of events which focus on a few living beings, a simulation of experiences in which the characters travel on epic adventures which could rival Homer's *Odyssey*, there is constant interaction, the characters show emotions which are actually embodiment of player emotions, and there is cognition in the sense that the player has to engage in a learning process to understand the mechanics of the game, the world, the cultural subtleties of the characters living in said world, and the purpose of the actions of the characters.

Role playing games are narratives, but are they truly interactive? Using elements of fiction as setting and inspiration for characters, one has to wonder if there are any differences between role playing games and fiction. Kim (2006) argues that "an essential difference between role-playing games and fiction is that RPGs are created interactively." This means that different players with different ideas will sit around a table and each have a different idea of what they want the story to be. By means of communication, negotiation, and overall interaction a story that is similar to all of the players' ideas but identical to none is weaved out. Because they are working together to make the story, the game master and the

players need to communicate. According to Kim (2006), “lack of communication or miscommunication about genre can cause arguments and bad feelings.”

Tabletop role playing games are story-driven adventure games in which each player takes control of a character and embarks on mystical quests guided by the game master to save a princess, slay an evil wizard, dragon, or demon, or to save the world from destruction. In RPGs, players have to keep notes of events, including lists of possessions and narrative accounts of events transpired, similar to journals, as well as communicate with each other in order to allow the story to progress. These games thrive on the fact that they are interactive narratives, or interactive stories.

### **Role Playing Game Content**

Even though games like Dungeons and Dragons have been labeled by some as satanic tools, this sort of criticism stems from ignorance of the actual game content. In truth, games like Dungeons and Dragons are nothing more than narrative sessions where people meet and tell stories to each other. Once again, the difference between traditional story telling and collaborative narrative is that in collaborative narrative everyone listening to the story can also tell the story at the same time, as long as they adhere to the rules of the game. Because of their interactive and collaborative nature of role playing games, they “allow people to tell and be told a story at the same time, enjoying the role of audience without relinquishing the role of artist.” (Padol, 2006)

Stories told in these games can range from pre-historic tales of hunting and gathering while surviving from the elements to futuristic science-fiction tales with spaceships and laser guns. Indeed, “role-playing games can be a complex storytelling experience.” (Henry, 2003) If the players prefer the story to be of a historical nature, settings such as Vietnam or events such as World War II can be used in the game sessions.

### **Educational Theory and RPGs**

Some teachers may be hesitant to use games in the classroom. They may see games as not being educational. However, Reiber (1996) points out that research on play with children and adults indicate that “play is an important mediator for learning and socialization throughout life” (44). Reiber hints that using games in the classroom can be beneficial, not only for the learning process, but also for socializing, and that while the skills acquired during a lecture or traditional lesson may last only until the next test, the skills learned by playing a game could last for a lifetime. For this reason, teachers should be willing to experiment with new games in their classroom; after all, “play and imitation are natural learning strategies at which children are experts. Having children play games to learn is simply asking them to do what comes naturally” (Reiber, 50).

There are many learning theories which have been created over the years to analyze and explain the process of language acquisition. Using concepts such as exposure, behavior, and meaningfulness of learning, they all try to explain the language acquisition process in their own way. Although none of them mention

RPGs in their postulates, some claim that the proposals these theories and approaches put forth may be implemented through RPGs being used as teaching and learning tools. Three philosophies that seem to argue in favor of the use of RPGs in the ESL classroom are the whole language philosophy, CLT, and David Ausubel's theory of meaningful learning.

Whole language is a philosophy about integrated curriculum, in which language is taught as a whole with certain aspects of other courses mixed with language teaching and learning (Brown, 2000, conforming to Newman, 1985). What this means is that whole language tries to incorporate other aspects of academic life into language teaching. With RPGs, teachers can accomplish this. In RPGs, players have to constantly engage in basic mathematical processes. Addition and subtraction of large quantities of money, measurements of distances and calculations of distance versus character's ability to move and excess weight carried, and strategic management of resources are common events that take place in RPGs. This allows for an obvious integration of math into the activity.

Furthermore, should the scenario chosen by the game master, in a school setting the teacher, be of a historical nature, it will allow for an integration of history. A campaign where students become part of Richard Lionheart's army to take back Jerusalem or where they become actively involved in Alfred the Great's campaign to reclaim Britain would hold high historical integration. In the end, the purpose of using whole language is to teach the students about more than just language within the language lesson, and using RPGs allow for this to happen as part of their design.

In a communicative classroom, all activities must be geared towards giving the students necessary practice to accomplish the production of unrehearsed language in outside-the-classroom situations. In order to accomplish this task, teachers need to integrate activities in which the teacher will act as a guide instead of a lecturer, students have the opportunity to speak and communicate with each other freely, and that are variable every time the activity is used. In other words, the main purpose of a CLT classroom is for the students to use the target language. A language-based game that encompasses all of these qualities and can be used in the ESL/EFL classroom is the tabletop RPG. As David-Phillips states, "Role Play is not new to language classes, although RPGs are" (1995). A tabletop RPG is a language-based game in which the participants assume the roles of fictional characters and collaboratively create or follow stories. Participants determine the actions of their characters based on their characterization, and the actions succeed or fail according to a formal system of rules and guidelines. As long as the players follow the rules, they can improvise freely. Their choices often affect the direction and outcome of the stories they create.

David Ausubel's meaningful learning theory says that humans can't be conditioned. It also states that for students to learn, the learning process must be meaningful. For this to happen, the student has to "relate and anchor new material to relevant established entities in the cognitive structure" (Brown, 2000, p. 83), meaning that for meaningful learning to take place, the student should connect

what is being learned to previous knowledge. A new way of looking at Ausubel's theory which is becoming popular is one that states that meaningful learning is not only based on the relationship of new concepts with previously learned concepts, but that for learning to be meaningful it should also be fun. Quinn (2005) says that "Not only as we hear in prognostications from James Gee, Marc Prensky, and others, but our own intuition tells us (as well as watching kids), that when learning is done right, it can and should be fun" He also argues that when teaching narratives "the story and actions [of the characters] have to be meaningful to the learner. We need stories that appeal to their interests and motivations. Learners learn best when the setting is one they care about." Of course, this raises an important question: would students be more interested in a third person character that they can only experience through someone else's voice, or in their own character in whom they invested time and efforts and whom they can experience through their own agency? The answer seems obvious.

A course should not revolve around a single form of narrative, there should be diversity of instructional resources to appeal to all of the students. After all, "Learning should be hard fun" (Quinn, 2005)

## **Methodology**

### **Design**

Our investigation was of a quasi-experimental design with a pre-test and post-test. At the outset of the study, the participants had varying degrees of proficiency in the target language. The participants were first year Puerto Rican post-secondary ESL students. Two groups of five students each participated in the study, for a total of 10 students. One group, 5 students, worked as the control group, while one group, 5 students, worked as the experimental group.

The instruments of evaluation used for the pre-test and post-test was based on a diagnostic test used at regional levels in the public high schools of Cataño, Puerto Rico. The test adheres to the standards currently established by Puerto Rico's Department of Education.

### **Procedure**

One group of 5 post-secondary students with varying degrees of bilingualism from a local post-secondary institution (the control group) was exposed to the traditional English 101 curriculum where they practice grammar, listening, reading, and writing. Their final evaluation consisted of an oral presentation on a chosen short story or short novel. The experimental group, composed of one group of 5 students with varying degrees of bilingualism from the same institution, was exposed to the same English 101 curriculum as the control group. However, instead of having to present on a novel or story, the students presented on their experience with the role playing game. Once a week, the control group was given a period of sustained silent reading (SSR), and the experimental group was given a game session to play a tabletop role playing game. The researcher guided the participants of both groups through their chosen stories and collaborative narratives and evaluated them using the same standards. At the beginning of the term, the students were given a

diagnostic test and the results were stored in the Excel spreadsheet program. The students in the control group chose from a list of short novels, while the students in the experimental group gathered with the researcher and participated in character creation and world-interaction. At the end of the term, each group stood in front of the class and gave an oral presentation about their novel or experience. Each group had to talk about characters, setting, and themes, as well as give a summary of their story.

All of the groups went through the school term in the same manner, with the difference that once a week the control group would be given time to meet, read their stories, and brainstorm about their report, while the experimental group was given time to play the RPG.

Towards the end of the term, after all the students had presented, they were given a post-test, and the results of the post test were input into the Excel spreadsheet program.

The success of the experimental treatment was measured by the statistical analysis of the data which shows a more dramatic increase in academic performance on part of the students in the experimental group over the students in the control group.

### **Hypotheses and Research Questions**

The main hypothesis of this study is that student exposure to tabletop role playing games results in a higher academic performance in part of the students. Based on this hypothesis, the main research questions that guided this study were the following:

- Does exposing students to role playing games affect their academic performance in the ESL class?
- If exposure to role playing games affects academic performance, what is the effect?

### **Analysis of Data**

The analysis of the data was carried out in order to discover whether students who play RPGs in the ESL classroom have a superior academic performance than those who do not. To do this, it was necessary to figure out how much did both groups improve, and what was the difference in proficiency increase between the control group and the experimental group.

First, the results of the pre-test and post-test of each student were input into the computer. The students were identified individually, but the scores were averaged as 'control group' and 'experimental group'. After all of the scores were input, the scores of the students from the experimental group were added into two totals, a group pre-test score and a group post-test score, and the scores from the control group were added in the same manner. The next step was to find out how much each of the groups had improved between the pre-test and the post-test. In order to do this, the standard percentage increase formula was used on the values obtained from both groups.

$$\Delta\% = 100 \left( \frac{\text{NewAmount}(x) - \text{Base}(y)}{\text{Base}(y)} \right)$$

This mathematical formula states that to find a percentage of increase between two scores, the original score, in this case the result of the pre-test, is subtracted from the new score, in this case the post-test score. This result is divided by the original score, meaning the pre-test score, and then multiplied by 100. The resulting amount will be the percentage increase between the first and second scores. In this investigation, the formula was used to find out the percentage increase between pre-test scores and post-test scores.

This resulted in the percentage increase between pre-test and post-test of both the control group and the experimental group. The same mathematical formula was applied to the resulting increments in order to find out the degree of success of the treatment was, using the resulting scores from the experimental group as the new amount and the results from the control group as base.

## **Discussion**

### **Results**

The analysis of the data was carried out using the raw data from the pre-tests and post-tests of the students. All the scores from the pre-tests and post-tests were added in order to create single scores. This resulted in four different scores, labeled as follows:

- Game Pre-Test (the sum of the 5 scores of the pre-tests from the experimental group.) Value = 202
- Game Post-Test (the sum of the 5 scores of the post-tests from the experimental group.) Value = 309
- Book Pre-Test (the sum of the 5 scores of the pre-tests from the control group.) Value = 213
- Book Post-Test (the sum of the 5 scores of the post-tests from the control group.) Value = 274

In order to be as accurate as possible with the calculations, the results were not averaged; the calculations were made with the resulting total scores. The application of the standard percentage increase formula to both the control group and the experimental group demonstrated a 52.97% increase in academic achievement between the pre-test and the post-test with the experimental group, and an increase in academic achievement of only 29.57% with the control group. This means that students who presented on role playing games showed an academic performance increase of 69.84% more than those who presented on books. Based on these findings, certain conclusions were made.

### **Conclusions**

The review of literature suggests that there is some connection between role playing games and certain aspects of language use and practice. There exists even a possibility that RPGs might help ameliorate the language acquisition process

(Quijano, 2007). Furthermore, RPGs implement certain aspects from modern language acquisition theory (Brown, 2000, 2001). The statistical evidence resulting from the analysis of the data shows that students who presented on video games showed an academic performance increase of 69.84% more than those who presented on books. Based on the analysis of the data and the review of literature, it was concluded that RPGs the use of role playing games, when used along with traditional curriculum activities, affect student academic performance in a positive manner. Furthermore, it was concluded that the integration of role playing games into the traditional curriculum helps improve student academic performance. Finally, based on these conclusions, it can be accepted that the hypothesis which states that student exposure to virtual interactive role playing simulations results in a higher academic performance in part of the students is, indeed, correct.

### **Recommendations**

This is one of the few investigations within the field of ESL that has looked at the effects of RPGs in the academic performance of students, and possibly the first one carried out in the Hispanic-speaking Caribbean. Based on the conclusions, recommendations focus on further investigation of the topic, as a single investigation presents too little evidence to be generalized. Future research could conform to the experimental design using pre-test and post-test, as this one does. It could also conform to survey-designs that measure frequency of play and how this variable correlates with academic performance in the ESL classroom or with attitudes towards the English language. Furthermore, causal-comparative studies looking at the possibility of there being a cause-and-effect relationship between playing video games and specific aspects of ESL education would be very insightful.

RPGs are language based interactive narratives that seem to catch the attention of students. It is the responsibility of ESL educators, then, to integrate these games into the ESL classroom, if appropriate. After all, if learning is supposed to be fun, what better way to make it so than by incorporating games into the curriculum?

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