Exploring Literary Texts Through Virtual Worlds

Independent Study
Professor Chuck Kinzer

Summer - Fall, 2007

Abstract:

When reading literary texts, students must make interpretive choices that often affect their understanding of the material. Objects and symbols that have cultural, historical and literary significance can be used to provide new and interesting entry points for interpretation. However, providing opportunities for discovery and engagement of this kind can be difficult to arrange due to time, space, and availability of materials. Virtual worlds can give students and faculty the ability to reach beyond these limitations. However, these immersion technologies are both labor intensive and expensive, while the decision to allow student to become co-creators of their own knowledge and experience can present overwhelming challenges. The results of this project indicate that the benefits can outweigh the challenges provided the projects are do-able given the constraints of time and student technical ability.

Heidi Trotta
(aka - Heidi TeeCee)
January 18, 2008

AIM:

Can virtual worlds, such as Second Life, offer viable interactive

learning spaces for students to explore and demonstrate knowledge

of a literary text and material theory?

Rationale:

When reading literary texts, students must make interpretive

choices that often affect their understanding of the material.

Objects and symbols that have cultural, historical and literary

significance can be used to provide new and interesting entry

points for interpretation. However, providing opportunities for

discovery and engagement of this kind can be difficult to arrange

due to boundaries of time, space, and availability of materials

(Balkun, 2007). Virtual worlds such as Second Life offer

educators and students the ability to work with objects to design

environments in which these limitations can be overcome resulting

in new ways to explore the representations of material culture in

literary texts.

Theoretical Framework:

>*"We do not apprehend the world directly at all. Rather we experience it through the signs we construct to represent it."*
>
>*~ Driscoll & Lebow, 1992*

Information processed by our cognitive system is represented as mental representations. The remembrance of these images is enhanced by their meaningful association to each other or to our existing knowledge. How we seek information determines what information we get; however, the information we receive also affects what we already know. We have all experienced the world in different ways, sometimes quite distinctly from other people. However, when objects or symbols are associated with events new meanings can be formed between new and old information, thus expanding our web of knowledge (Winn & Synder, 2001). How does this all work?

Most would agree the object in *Figure 1* is a picture of a can of baked beans. Based on one's previous knowledge, this object could be associated with a memory of a special person or the experience of a picnic.

Figure 1

When combined with other objects (information) however, as seen in *Figure 2*, the beans can take on a different meaning, contributing to a possible new representation, as seen in *Figure 3*.

Figure 2

Figure 3

These concepts about how we process information through symbols, has led to changes in theory and methodology regarding reading comprehension. We have seen a shift, from the primary focus being on individual word comprehension to interpreting sets of sentences that form a paragraph. Research suggests that what is actually passed into long term memory is an abstract representation of the text's meaning. Readers remember the overall idea of a passage rather than the text itself and, in fact, form a mental model of situations and events described by that text (McNamara, Miller & Bransford, 2000).

As stated earlier, there is little doubt that readers bring past knowledge into their interpretation of text. Authors count on a reader's previous connections through objects and systems to communicate meaning. For example, in the text displayed in *Figure 4,* the author is assuming that the reader knows something about the relationship of objects in a restaurant to comprehend the passage. If this is true, the reader will infer that John ordered a meal from the waitress and left the five dollars as a tip. (McNamara, Miller & Bransford, 2000). This is called situational modeling (O'Brien & Albrecht, 1992).

"John was hungry and decided to order a large meal.
He was pleased that the waitress was attentive and prompt. After he finished the meal, he paid his bill and left an extra five dollars under his plate."

Figure 4

Writers make use of the mental and situational model theories as literary devices. Used in character development, for example, mental representations are formed through the association of symbols and objects and are in a state of constant refinement as the story progresses. We can see this clearly in this passage describing Pap in Huckleberry Finn.

"He was most fifty, and he looked it. His hair was long
and tangled and greasy, and hung down, and you could see his eyes shining
through like he was behind vines ….
There warn't no color in his face, where his face showed; it was white;
not like another man's white, but a white
to make a body sick, a white to make a body's flesh crawl
 -- a tree-toad white, a fish-belly white."

Figure 5

Not only do objects take on significance by their relationship to the people in the novel, they also tell us about the cultural, political and historical times during which the book was written or when the story takes place. Collectively, these artifacts can depict daily life through social and physiological structures. Authors have often used objects as social commentary, describing their own views on such topics as modernization and decadence and contributing to themes that often run throughout the text. (Watson, 1999). Thus we see how material culture, defined as the study of artifacts of a particular society or community at a given time (Prown, 1982), can be used in literary analysis.

6

Students are not often aware of the kinds of interpretive choices they make and the implications for reading and comprehending text (Balkun, 2007). Graduate literature classes often contain learning activities designed to engage the students in material culture criticism, examining how cultural and historical materials are used in narratives. Teaching methods are usually more traditional; such as close reading of the text and analysis followed by guided class discussion. However, the "neomillennial" student of today is moving away from being the customary passive recipient of knowledge (Jenkins, 2006).

Today's learner flourishes in participatory cultures as an active co-creator of shared knowledge networks, and establishes numerous virtual identities while contributing to communities of practice (ECAR, 2007). Establishing new literacies of their own, their learning landscape is filled with opportunities for informal learning, creative expression, and collective co-authoring (Dede, 2007). Immersive, collaborative environments such as Second Life offer powerful methods for building on these learning strengths and preferences (Dieterle & Clark,(in press)).
Participants have the ability to engage in long-term, joint, coordinated action. Residents can shape and to a large extent create, change, and evolve their environment through collaborative imagining. The visual component of these online environments provides a sense of place and physical co-presence leading to a joint sense of shared investment and action.

Similar to other distributed systems of our time, the whole ends up being greater than the sum of its parts (Thomas & Brown, 2007).

Method of Analysis:

At Seton Hall University in 2007, a Faculty Innovation Grant was awarded to Dr. Mary Balkun, a senior English faculty member to explore innovative ways to use technology in the classroom. Teaming with instructional design staff, *The House of Seven Gables* by Nathaniel Hawthorne was recreated within the virtual world of Second Life. A graduate Gothic Literature class of sixteen students was chosen as a pilot to investigate the effectiveness of using virtual worlds to explore material culture and criticism.

An island within Second Life, (Seton Hall 167,171,30) http://slurl.com/secondlife/Seton%20Hall/167/171/30/ ,had been leased earlier by the university from the New Media Consortium to explore the potential uses of virtual worlds for teaching and learning on campus. A Second Life builder, Eloise Pasteur, was contracted to recreate a structure similar to the house described in the novel.

Upon completion, the structure was located on the northeast side of the island and the land roughly terraformed to accommodate the house. Students in groups of two were given the task of recreating spaces in and around the house. Overall goals of the

project included: (1) engagement with characters in the novel (2) purposeful research (3) evaluation of sources and (4) critical analysis of the text based on objects and materials added to the site. In addition, students were asked to think about their own pedagogical practices and the ways texts could be "taught" by creating an artifact of educational value to be included.

Students created a Second Life account and were given an introduction to the project and a basic Second Life skills orientation. Various print/multimedia resources and tutorials were provided along with collaborative work spaces in a special shell created for the project within the campus course management system. Screen prints can be seen at: http://www.flickr.com/photos/76564238@N00/.

Student groups were divided between the two instructional designers to provide technical support throughout the semester. Individual and group help sessions were held face-to-face and within Second Life at numerous times as students recreated and populated areas with their objects and learning activities. Final presentations of the projects were given the last day of class, with the assignment comprising 15% of the final grade in the course. A rubric was used to grade the projects.

Assessment of the overall activity was performed twice during the semester. The first evaluation was done informally in a social

setting off campus with a more formal final assessment at the completion of the class. Time was provided in the last class period for thoughtful completion of a survey which consisted of twenty open-ended and likert-based questions on student access/support, learning effectiveness and student satisfaction (Bourne & Moore, 2004). Informal assessment was conducted between the faculty member and the two instructional designers on a weekly basis throughout the semester with a more formal assessment at the completion of the semester to review the results of the student survey, discuss cost effectiveness, and determine faculty satisfaction.

The Findings:

The students recreated eight key spaces within and around the house: the kitchen, entranceway, parlor, bedrooms and garden. Educational projects inside these locations included scavenger hunts, maps, quizzes, interactive images and objects, thinc books, and a recipe exchange. Topics covered industrialization in the early nineteenth century, the cult of domesticity, the changing status of the lady in the 1850's, the garden as narrative, and character analyses. Images of these spaces and projects can be seen at: http://www.flickr.com/photos/76564238@N00/

Placed on a video screen outside of the house were movies created by Dr. Balkun and students. These included:

- *Welcome to the House of the 7 Gables*
  http://www.heiditrotta.com/images/welcomefinal.mov

- *Phoebe*

  http://tltc.shu.edu/virtualworlds/video/Phobe.mov

- *Events in the Parlor*

  http://tltc.shu.edu/virtualworlds/video/houseof7_parlor.mov

- *A Tour of the House*

  http://tltc.shu.edu/virtualworlds/video/entryway.mov

All sixteen students responded to the formal survey (Appendix I). A quantitative and qualitative analysis was performed, looking for themes, correlations and similarities. Responses were also examined by student.

Student Access

Students overwhelmingly indicated that they felt comfortable using new technology; however, half felt working with the Second Life application itself impacted their learning experience. The inability for most of the university-issued laptops to totally render the Second Life environment and the lag that occurred when interacting in the environment increased student frustration. The time spent actually using the tool was therefore higher than students expected, with three students having to access Second Life from a campus computer lab.

Learning Effectiveness

Because of the activity, students were more inclined to complete the reading of the novel, as compared to other readings assigned in the course; however, the class was evenly divided as to whether they explored the novel in greater depth or recalled events in the story better. This parallels the lack of reference

to the text in some of the final projects. Quite a few remarked that their comprehension and the analysis of the text was completed *before* the activity even started through the face-to-face class discussions and their own research. This correlated well with their preference for completing course work as they have "always done" rather than trying something new.

In sharp contrast, Dr. Balkun felt the projects showed a greater variety of creative approaches to literary analysis than non-Second Life based assignments and a demonstration that students were thinking about literature in new ways. There was evidence in the topics chosen, the learning artifacts created and the objects placed in the spaces that students had acquired a deeper understanding of the historical, cultural and political influences present in the novel.

Student Satisfaction:
Interestingly, more than half of the respondents felt it was possible that virtual environment technology could provide a valuable learning space for understanding literary text however, the class was divided on whether the actual manipulation of objects in-world led to new connections and interpretations regarding material culture. A few students expressed concern as to whether their time spent using Second Life to achieve class objectives was worth the investment. Results correlated with their perceived inability to recreate the spaces they envisioned in the novel and subsequently the value they placed on the assignment.

Faculty Satisfaction

Dr. Balkun indicated an underestimation on her part of the amount of student support needed, time commitment, and the difficulty for students in recreating the rooms in the house. However, she felt students were able to see one another's work in ways rarely possible in a traditional literature class through role plays, movies, webquests, and scavenger hunts. Providing opportunities for multiple learning styles, students now had numerous avenues for turning their research into creative, tangible, shareable forms (Balkun, 2008). Project assessment showed students were not always aware of the connections between the text they were reading and the application of critical theory (Balkun, 2008). This provided additional insights for Dr. Balkun for her own research into the ways that objects are understood and even envisioned by readers.

Cost Effectiveness

Clearly this project required a larger amount of support hours than anticipated, as previously mentioned. A more manageable solution would need to be found in the future. Funding for the project was drawing to a close, with additional monies to be secured.

Inferences and Interpretations:

Without a doubt most students in this class were frustrated to some degree in using the Second Life technology as a part of their classroom activities and assignments. Student anxiety levels increased in relation to their perceived inability to successfully create, find and place chosen items where desired

within the house. When faced with technical challenges in the application, few used the many resources available, preferring face-to-face support in an effort to ease their fears and uncertainty. Even though students indicated a high comfort level with new technology, this activity confirms our past experience that students on our campus often need more hands-on support than anticipated.

Evidence indicates that there were students that leaned toward a more traditional view of teaching and learning in the classroom, based probably based on their expectations and experience. This was apparent in such open ended responses as "I'm old-school" or "Typically (learning) takes place in a slightly rundown room with a chalkboard, desk and subconscious longing". This coincides with recent findings at other higher institutions of higher learning regarding decreased student satisfaction when using alternative learning environments (Twigg, 2005).

Regardless of the students' inability to find or make objects to recreate spaces in and around the house, Second Life did offer an engaging and creative venue for the interpretation of text. The ability to share and build on previous student work, coupled with the opportunities to reach visual learners often neglected in the traditional literature classroom, makes the continuation and revision of the activity worthwhile.

Limitations:

Because quite a number of responses in the student survey were evenly divided, it was difficult to draw any firm conclusions on a number of issues. For many questions, the number of neutral responses could be interpreted as going either way. This might not have happened in a larger survey sample.

Implications for Education:

Virtual worlds offer residents the opportunity to create objects and spaces that reflect mental representations in a more visual form. They are unique in that users can bring physical world dispositions into the space while leaving others behind. They encourage creativity and imagination with the capability of supporting a shared vision, as well as creating new meanings and interpretations. This makes an environment possible where students can engage in "playful exploration, rather than navigation through a hierarchy of knowledge" (O'Malley, 2000).

However, students are not always receptive to the capabilities of these new spaces in the classroom. "Manipulation" spaces need to allow learners to easily control objects and activities or the learning outcomes could possibly be effected (Jonassen, 1999). Coupled with anxiety and disappointment, technology issues can cause students to lose connections between the activity, the objectives, and how they relate to their own learning.

Conclusions:

There is no doubt that all students were able to demonstrate knowledge of a literary text and material theory through the House of Seven Gables in Second Life. Despite student frustrations with the technology, the projects created were reflective of material culture for the space chosen and appropriate for the novel. The student-generated learning activities showed careful research, imaginativeness, and resourcefulness on topics not usually chosen for research in such a course.

Those students who took the time and effort to recreate their space in the house were able to benefit more from the affordances the technology provided, making a stronger connection between the objects they placed in their space and material culture in the novel. Students who struggled with the application and were disappointed with their spaces felt unsatisfied. Additional contributing factors could have been high expectations for their own work, past educational experiences, or preference for more structured assignments. In these cases the connection and perceived value of the overall activity were reduced.

Projects using alternative learning spaces must be designed to be do-able given the constraints of time and student technical ability (Balkun, 2008). Learners need to feel a sense of ownership and value in the learning activity (Jonassen, 1999)

while being provided with the appropriate tools to complete the assignment to their expectation. Multiple assessment opportunities throughout the activity are called for to help faculty and designers evaluate if students are making the connections desired.

One has to remember when using virtual worlds in the classroom that they are still an emerging technology. The tools to create environments will become easier to use and support in the near future. However, more research must be done on how these environments are most effective in teaching and learning. Would the objectives for this activity have produced a *different* outcome and increased satisfaction if the environment in and around the house had been professionally developed based on student input? A number of students thought so. This is uncertain; comparative studies are needed to provide such answers.

Virtual worlds offer educators new learning landscapes to explore. There is no doubt that the 3-D web is in our immediate future and will change the way we view reality and ourselves. New concerns will arise on an institutional level about how best to fund and support immersive environments on campus. Student account and intellectual property issues are cropping up already as we try to solve familiar issues in a new world with old policies and procedures. However, we will never know how virtual worlds can

best support teaching and learning unless we push the boundaries, even if we have to retreat to move forward.

Bibliography

Balkun, Mary. Personal Interview. 10 Sept. 2007

Balkun, Mary. Personal Interview. 7 Jan. 2008

Borne, J., & Moore J.C (Eds.) *Elements of Quality Online Education: Into the Mainstream.* (p. 109-124). Needham, MA: Sloan-C.

Dede, C., (2007). Introduction: A sea of change in thinking, knowing, learning and teaching. *ECAR Undergraduate Student and Information Technology Survey:* EDUCAUSE, pp 19-26.

Dieterle, E., & Clarke, J. (in press). Multi-user virtual environments for teaching and learning. In M. Pagani (Ed.), Encyclopedia of multimedia technology and networking (2nd ed). Hershey, PA: Idea Group, Inc.

Driscoll, M., & Lebow, D.(1992). Making it happen: possibilities and pitfalls of Cunningham's semiotic. *Educational Psychology Review 4*, pp 211-21.

ECAR Undergraduate Student and Information Technology Survey. (2007): EDUCAUSE.

Jenkins., H. (2006) *Confronting the challenges of participatory culture: Media education for the 21st learner.* (white paper)

Jonassen., D. (1999). Designing constructivist learning environments. In C. Reigeluth (Ed.), *Instructional Design Theories and Models:* pp. 215-239. Mahwah, NJ: Lawrence Erlbaum Associates.

Thomas, D., & Brown, J.S. (2007). *Why we need virtual worlds.* (working   paper).

McNamara, T., Miller, D., & Bransford, J.D. (2000). Mental models and reading comprehension. In P. D. Pearson, R Barr, & M. L. Kamil (Ed.s), *Handbook of reading research* I: pp 490-509. New York: Longman.

O'Brien E, Albrecht J. (1992) Comprehension strategies in the development of a mental model. *Journal of Experimental Psychology: Learning, Memory and Cognition.* 18(4): pp 777-784.

O'Malley, M. (2000). Building Effective Course Sites: Some Thoughts on Design for Academic Work. *Inventio, 2*(1).

Prown, J. (1982). Mind in Matter: An Introduction to Material
    Culture Theory and Method. *Winterthur Portfolio*, Vol. 17,
    No. 1 (Spring, 1982), pp. 1-19.
Twain, M. (2005). *Adventures of Huckleberry Finn*. New York:
    Prestwick House Inc.

Twigg, C. (2005). *Improving Learning and Reducing Costs – Models
    for Online Learning*. Keynote at ALT-C 2006, University of
    Manchester, England.

Watson, J. (1999). Literature and Material *from Balzac to Proust*.
    Cambridge: Cambridge University Press.

Winn, W., & Snyder, D. (1996). Cognitive perspectives in
    psychology. In D. H. Jonassen (Ed.), *Handbook of research
    for educational communications and technology* (pp. 115-122).
    New York: Simon and Schuster Macmillan.