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Christy Ashley

East Carolina University, christyashley@uri.edu

Sharon Kibbe

East Carolina University, kibbes@ecu.edu

Susan Thornton

East Carolina University, thorntons@ecu.edu

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Experiential Learning in Second Life: A Simulation in Retail Management

Christy Ashley, East Carolina University

ashleyc@ecu.edu

Sharon Kibbe, East Carolina University

kibbes@ecu.edu

Susan Thornton, East Carolina University

thorntons@ecu.edu

Abstract – In an effort to promote critical thinking in a Retail Management class, Second Life (SL) was used to simulate a real-world experience developing and executing elements of a retail strategy. Student groups created retail stores and outlined the store's target audience, unique selling proposition, merchandise assortment, store design and display and customer service. After the proposed retail strategies were brought to life by a team from Information Technology and Computing Services (ITCS), shoppers were invited to the mall. Students' avatars provided customer service and observed the competition as the number of visitors and items transferred to shoppers were tracked by store. Students were asked to analyze the performance of their stores relative to other students' groups, with an emphasis on the impact of store design, customer service, merchandise and displays on shopper behavior. Students were assessed on their analysis and the reasoning behind recommendations. The manuscript concludes with student feedback and instructor reflections, as well as recommendations for future adaptations the exercise.

Keywords – second life, retail management, experiential learning, critical thinking

Relevance to Marketing Educators, Researchers and/or Practitioners - The Second Life environment provides a unique context for applying marketing concepts and engaging in market-based problem-solving in a controlled environment where you can quantify shopper responses.

Background and Introduction

Experiential Learning and Critical Thinking

In response to feedback that “Undergraduate marketing education is often described as long on concepts and theory and short on application” (Diamond, Koernig, & Iqbal, 2008, p. 116), marketing educators have embraced experiential learning projects. Frontczak (1998) summarized experiential learning as a project that offers students a learning experience and the opportunity to reflect on the experience. Further, a recent editorial call asked marketing educators to develop learning experiences that help students prepare for business practice (Peltier, Scovottie, & Pointer, 2008).

Desirable experiential assignments are structured to provide practice solving problems and making decisions to prepare today’s marketing students for “a business world requiring flexibility in the face of challenges and opportunities” (Ackerman, Gross, & Perner, 2003, p. 46). The marketplace demands undergraduate students who are able to think critically and adjust to change. Critical thinking is defined based on Roy and Macchiette’s (2005) definition as “a general term dealing with a wide range of cognitive skills and intellectual dispositions needed to effectively identify, analyze and evaluate arguments and truth claims, to discover and overcome personal prejudices and biases, to formulate and present convincing reasons in support of conclusions, and reasonable and intelligent decisions about what to believe and what to do.” (Roy & Macchiette, 2005, p. 264-265).

As noted by Kaplan, Piskin and Bol (2010), 40% of corporate recruiters desire competency in problem solving, analytical and strategic thinking, information integration and implementation from business graduates. Unfortunately, undergraduate students often have a low tolerance for ambiguity and low critical thinking skills (Ackerman, Gross, & Perner, 2003). Therefore, it is important to provide students with exercises that force them to go beyond application to encourage students to practice critical thinking skills. The manuscript describes the use of one online tool, virtual worlds, that can help encourage this process.

The extant marketing education literature includes descriptions of many innovative experiential assignments that encourage critical thinking. For example, Diamond, Koernig and Iqbal (2008) encourage students to use data analysis tools to make data-based recommendations to solve problems. Daly (2001) gave students the opportunity to launch online businesses to provide practice making decisions and analyzing the results. Young (2010b) helped students establish an early identity as a marketing major by giving students the opportunity to analyze, plan, implement and control marketing strategies in an on-campus coffee house. Russell-Bennett, Rundle-Thiele and Kuhn (2010) required student teams to start and operate a business in a simulated offline world, QUtopia. Experiential exercises in marketing and other disciplines have also been developed in the context of virtual worlds.

Experiential Learning in Virtual Worlds

Virtual worlds can be used to facilitate exercises that help students apply course content and think critically about the results. Virtual worlds are three dimensional

communities that are accessed simultaneously over the Internet by multiple users. The users are represented in the virtual world by avatars who interact in a synchronous way. Avatars are complex beings that are created to provide a visual representation of an individual in a shared virtual reality (Hemp, 2006). These avatars have mannerisms, skills and wardrobes that make it possible to engage in innovative and collaborative activities (Mennecke, Hassall, & Triplett, 2008). Learning activities have been designed in Second Life (SL) to facilitate learning in astronomy, medicine, music, ecology, tourism, and history, among other subject areas (Salt, Atkins, & Blackall, 2008).

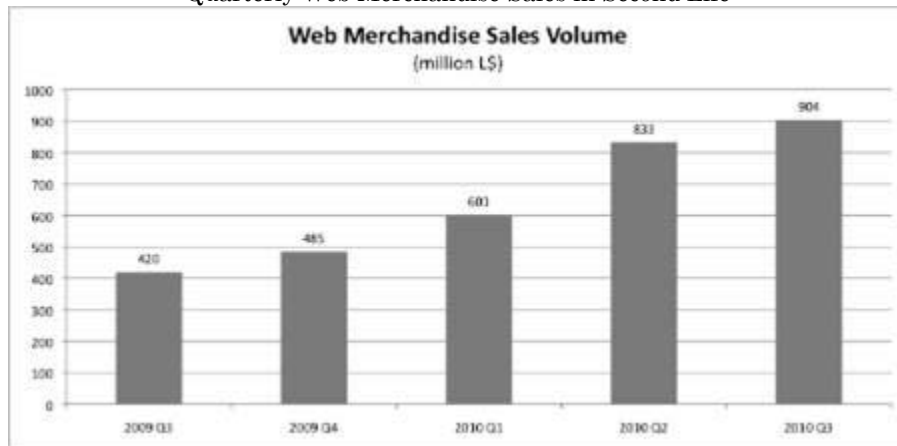
In spite of recent criticism and new efforts to develop alternative multi-user environments for education (Young, 2010a), SL is the virtual environment that is favored by educators. SL provides developers the ability to create objects and design complex environments that can be used to develop rich immersive experiences (Salt, Atkins, & Blackall, 2008). SL is not usually representative of a game because it does not have a specific goal, but learning simulations in SL can be built in order to make learning interactive.

SL provides a motivating, low cost context to introduce business related skills (Dreher, et al., 2009). Hornik and Thornburg (2010) developed accounting exercises in SL to foster engagement in accounting skills. Mahaley (2009) notes that companies including The World Bank, Nike, Dell, Disney, Novartis, BMW, Reuters and Unilever train business employees in SL with activities that include team building and business simulations. SL has also been used to develop marketing skills. For example, Tuten (2009) used SL to promote “digital age literacy, inventive thinking, effective communication and high productivity skills” (p.1) by asking students to execute marketing plans in a virtual environment. Nicovich (2012) also had students execute marketing plans in SL, calling it a digital playground.

Tuten and Nicovich’s projects were meaningful for students because they felt the retail environment simulated real world experience. The retail environment in SL is dynamic, as avatars often purchase their mannerisms and skills if they do not have enough skill or time invested to develop them. As noted by Bonsu and Darmody (2008), retailers use prims as basic building blocks to help SL users customize their experiences in this virtual world. In the absence of goals or identifiable missions, intentions or purposes, avatars shop for their avatars so they are appropriately attired to spend time in SL’s night clubs and restaurants.

Avatars shop in SL with Linden Dollars, which can be converted into US Dollars at a rate of L\$268.3/US\$1. At the end of the third quarter of 2010, an average of 486,000 members of SL’s population participated in economic transactions on a monthly basis, accounting for Linden\$ 904 million in Web merchandise sales (US\$3,369,362.70) in the third quarter (Second Life Blog, 2011; see Figure 1). According to Wagner (2009), stores that sell furnishings, events management firms and a shoe retailer are among top earners.

Figure 1
Quarterly Web Merchandise Sales in Second Life



Therefore, the current case study provides an overview of another innovative experiential learning exercise which takes place in SL. The project took advantage of the dynamic retail environment in SL. It extends previous work in SL, including other SL design projects (e.g. Meggs, Greer and Collins, 2011), because the emphasis is on retail strategy.

Case Description

Project Description

The project was initiated in an interdisciplinary teaching with technology seminar, where the instructor and personnel from ITCS met. The goal was to develop a retail simulation in SL in an effort to promote critical thinking in a Retail Management class. In this project, six groups of five students applied what they learned about market segmentation, retail store types, retail strategy, store design and visual merchandising as they created concepts for retail stores.

The students were college Juniors and Seniors enrolled in a Retail Management class in a College of Business. The students were equally distributed between male and female. Although the students were predominantly marketing majors, six students were interior design majors and three students were management majors. All students had taken Marketing Management, a prerequisite to this course. None of the students had experience with SL prior to the project.

In the first part of the project, students outlined the store's target audience, unique selling proposition, merchandise assortment, store design and displays. Students were given the following prompts:

- Who is the target consumer?
- What is the product mix? (what products will you sell – consider shopping goals? task completion, entertainment)

- What type of layout will the store use? (Grid, racetrack, modified racetrack, boutique/free-form) Why do you expect this layout to be effective for customer flow?
- What is the store's image? How does the store design support that image?
- Is there music constantly playing? If so, what kind?
- Create a planogram. Consider aisle placements, store appearance/feel, signage, lighting, fixtures, merchandising trade-offs, space allocation, empty space, features, and displays.
- The SL store will be designed by ITCS based on your specifications so please be clear.

Students were asked to justify why their concept was unique and how their team would deliver a unique offering that would be valued by customers. In addition to developing planograms of their store layouts, some students included pictures of the merchandise and displays they wanted. Students shared their concepts with their classmates and received feedback from their peers and from the instructor. After the retail strategy proposals were finalized, they were brought to life by the team from Information Technology and Computing Services (ITCS).

ITCS Project Development and Support

Before the proposals were submitted, ITCS provided students with an initial training on avatars and a second training that provided an introduction to retailing in SL in a computer lab. ITCS provided a cheat sheet of links to SL retailers that students could look at for ideas. A member of ITCS also worked with the students in class, where the students were working on laptops provided by the University.

A thorough knowledge in building, scripting, designing and decorating was necessary by the SL team to make this project work successfully. Due to other criteria in the class, the development of the virtual world simulation had a timeline of only 2 weeks and the project was implemented over a six-week period. The resources to implement the stores were provided by Information Technology and Computing Services (ITCS). There were 3 student workers assigned to the project, two of whom were excellent in coding scripts for objects and textures, and 2 full time ITCS staff.

Once the proposals were submitted, the ITCS took students proposals and ideas and created the retail space. All items in SL are created using a "prim" or building block which can be shaped and constructed into an object and brought to life with by programming or scripting certain features. Construction for this project started with a prim shaped into a modular (virtual) building which was copied to create six stores for the Mall.

The most difficult component of this project was finding the items to fill the

store. Although this is a virtual world, many individuals have a business in SL in which they sell virtual items such as clothes, furniture, scripts, etc. Many items that you can find in SL have to be purchased with Linden dollars (converted to US currency). This project was not financed by a grant or the department so it did not have additional funding. The team was able to locate items that were “free,” but the intellectual property rights of the items are protected by the designer or builder. Many creators would not allow other avatars to duplicate or modify those items. The team had to have rights to these items so that when visitors came to the stores they were able to purchase them for free and take the items with them.

The team was able to purchase some items which the creator allowed to be changed – such as taking a t-shirt and putting different designs or patterns on them. Some items were even created by the SL team which required additional time and effort. Another component of the project was to create a database that could track items that were purchased in the stores. This database tracked the item, how many were sold, and from which store. This part of the project required some “scripting” or programming and database expertise which was available from the SL team.

ITCS – Student Interaction

Following the initial development, students met with ITCS consultants in SL to modify the stores. In some cases, the desired design specifications or merchandise specifications could not be met because merchandise was not available to be transferred, enough time was not allocated to develop the merchandise, or because Linden Lab limits the number of virtual building blocks (prims) that can be built in one virtual space. In these cases, students were informed by the instructor that in reality, retail stores may not have the space or merchandise that was requested on their planograms and they would have to improvise in real life as well.

The students and instructor were very diligent about using their avatars to come into SL to meet with the ITCS team. It was only through this collaboration that the project remained on schedule. The team was able to use the text chat and voice chat features in SL to communicate with the students in order to complete their project vision.

The students were responsible for the design, layout, colors, or other features of the stores. Many of the students in the class came online with their avatars and gave the SL team advice on the look of their store and how the items were displayed. This interaction was very valuable in making their conceptions come to life. The SL team spent approximately 7 hours a day working on this project to meet the timeline.

To summarize, ITCS resources were allocated to: development of six stores, design elements in the stores, and merchandise that could be sold; a list of people to e-mail for open shop event and information about people on list to help inform students about their target audience; the build out of six stores based on student plans; inviting avatars to shop; developing the database and scripts and electronically monitoring the sales on the Open Mall Day. In addition to the requested resources, ITCS provided two additional training sessions for the students, interacted with the students in SL to improve the stores, set up a soft launch with another group of

students, and provided technical support and mall-level customer service on Mall Day.

Student Concepts

Students were given options to choose from in terms of fixtures, lighting, and merchandise. Students selected additional wall coverings, floor textures, additional lighting fixtures, tables, avatars to greet customers coming into the store, and mannequins. When students wanted to sell merchandise that was not available, ITCS looked for merchandise that could be transferred to others in the store settings. The final store concepts included a sporting goods store with a sports bar upstairs (Figure 2a – b), a sporting goods store with a racetrack and shoe store upstairs (Figure 3a – b), a surf shop (Figure 4a – c), a motorsports store Figure 5a – b), a women’s boutique (Figure 6a – c), and a Halloween store (Figure 7a – c).

Figure 2

The End Zone (Sports Apparel and Sports Bar): (a) Store front and (b) First floor

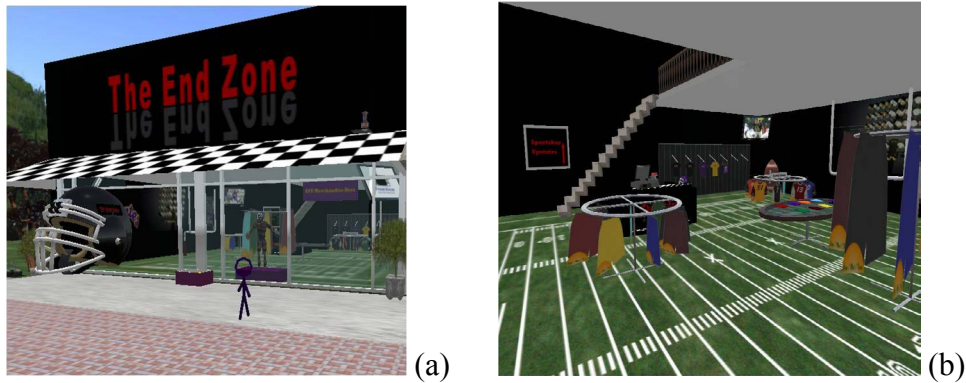


Figure 3

Elite Sports (Sporting Goods, Apparel and Athletic Footwear): (a) Store front and (b) First floor

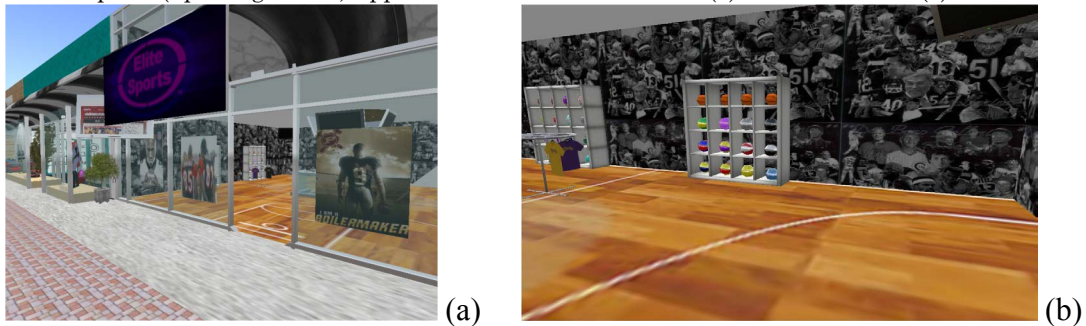


Figure 4

The Beach Shop (Surf Shop): (a) Store front, (b) First floor, (c) Second floor



Figure 5

Pirate Motorsports: (a) Store front (b) Cash wrap

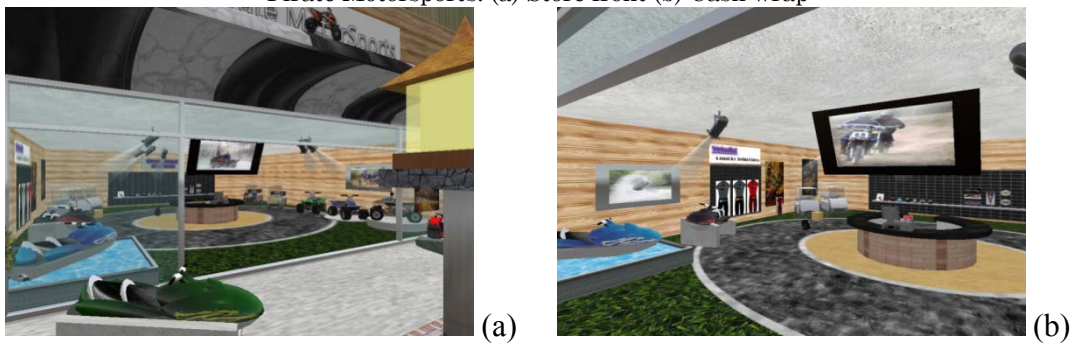


Figure 6

Ciao Bella (Boutique): (a) Store front, (b) First floor and (c) Second floor

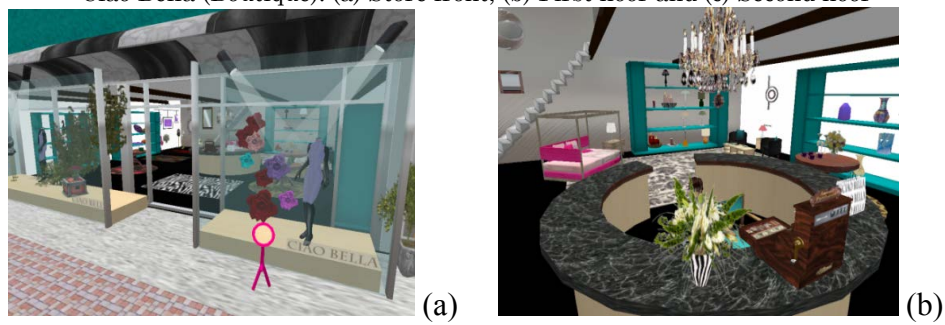


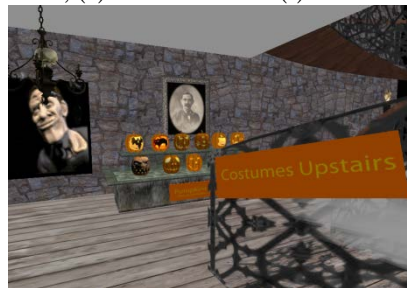


Figure 7

The Boneyard (Halloween Store): (a) Store front, (b) First floor and (c) Second floor



(a)



(b)



(c)

When the merchandise that the students wanted to display or the display format they wanted was not available, students were asked to make adjustments in a way that was consistent with their store's strategy.

One interesting challenge the students had to accomplish was to market their stores. So there were many ways that the SL team was able to help them bring that alive. One example was a virtual "stick man" that shouted statements to bring people into their stores (e.g. "Welcome to the Surf Shop"). These statements could be changed to include the store name or advertising special promotions.

Other ways students advertised was through the storefront windows with merchandise that was inviting to the customer. This virtual simulation assisted the students with a visual interpretation of their "dream" store and being able to walk around and through the 3-D objects assisted them in visualizing space, store front appeal, and layouts.

Shopper Observations: Mall Day

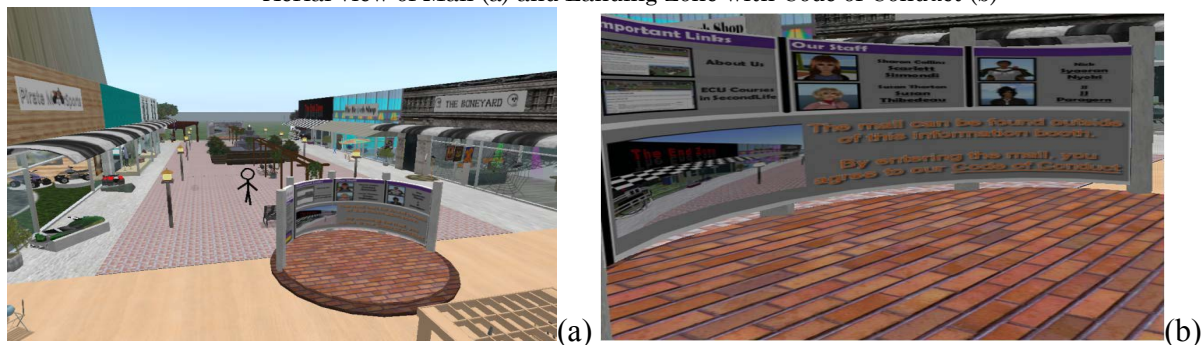
Once the store development and feedback phases were complete, shoppers were invited to the mall on two separate occasions. First, ITCS recruited another class that was learning about how SL could be used for Interior Design to visit the students' stores on "soft launch" day. Feedback from the visiting student avatars and the students who were providing customer service was used to improve the retail concepts.

On the actual Mall Day, avatars representing people outside the university were recruited using e-mails to lists from ITCS. The lists included other educators and people who were interested in fashion within SL as well. Students' avatars provided customer service and observed the competition as the number of visitors and items transferred to shoppers were tracked by store. Because the stores were set up on an educational island, the students could not sell the items; they needed to be transferred for zero Linden dollars.

An overview of the mall is shown in Figure 8a. When visitors came into the mall area, they were given information about the project and the mall at one of two checkpoints (Figure 8b). ITCS staff was also available in the mall itself during the open Mall Day to answer any questions from the avatars who were recruited to shop and to replace items if people took them out of the stores. (This was a frequent occurrence with the items from the motorsports store.)

Figure 8

Aerial view of Mall (a) and Landing Zone with Code of Conduct (b)



ITCS tracked the number of visitors to each store, the specific items sold, and the number of each item sold through a database. Students were asked to analyze this information and to evaluate performance of their stores relative to other students' groups, with an emphasis on the impact of store design, customer service, merchandise and displays on shopper behavior. Specific prompts included:

- Did you attract attention? Make people want to look closer?
- Did you arouse interest? Hold the viewer's attention once they were in the store?
- Did you create a desire to own the product?

- Did you initiate buying by providing information on benefits, and uses?
- Did you encourage impulse buying?
- How long did customers stay in the store? Relative to other stores?
- Did you create a store image?
- Did you showcase a product?
- Did you educate the customers?

Mall Day Results

The students received a report that noted the results of his/her group's store and the other students' stores. The report showed the number of visitors, number of items bought, different types of items bought, and the quantity purchased of each item (see Table 1). The instructor entered where the item was located in the store and how it was displayed to aid the analysis of merchandising strategies. Figure 9 shows avatars shopping during the Mall Day.

Table 1: Excerpt from One Retailer's Report

Object Name: The Beach Shop (Region 351232, 353536; Local Position 79, 68, 29)				
You had 190 visitors				
You had a total of 163 items bought				
You had 47 different items bought from your store.				
Item	Number Sold	Display Type	Position	Floor
Halter Tops	10	Straight Rack	Back Wall - Not Displayed	2
Mexican Beach Hat	9	Shelves	Left Wall	1
Tank Tops	9	Straight Rack	Back Wall - Not Displayed	2
Bikinis	8	Table	Right Middle - in Box	2
Surfboard Hawaiian	8	Wall Display	Front Right Wall	1
Surf Shirts	7	Table	Back Center Left - Box	1
Surfboard floral	6	Wall Display	Front Right Wall	1
Surf Shirts	6	Table	Back Right Folded	2
Shorts	6	Wall Display	Back Left Wall - Picture	1
Dresses	5	Table	Right Middle - in Box	2
Surfboard Blue	5	Wall Display	Front Right Wall	1

Figure 9
Mall Traffic on Mall Day



Although it was difficult to track the actual number of visitors to the entire mall, the number of visitors to each store ranged from 173 to 343. The six stores “sold” (transferred) 1,392 items on Mall Day. The store with 343 visitors on Mall Day, a Halloween shop called The Boneyard, also sold the highest number of items, 306 units from an inventory of 34 items. The most popular item was also from The Boneyard: a Darth Vader costume that was displayed on the back wall on the second floor, which was transferred 12 times on Mall Day.

Assessment

Students were asked to write a memo to an executive with recommendations for improving the performance of their store going forward. They were asked to concentrate on the shoppers’ activities and analyze of how their store compared with competitors within the Mall. They were asked to consider how different merchandise and customer service strategies might result in different types and numbers of items transferred.

They were also asked to point out any inconsistencies in other stores’ strategies and implementation that may have affected the results. They were asked to provide screen shots, tables, and exhibits to support their analysis. Finally, students were asked to make recommendations that were based on their analyses and understanding of retail concepts. After the memo, students were asked to include a short written reflection on the experience.

Assessment of Students

Stores were assessed based on the following:

- whether the store design was consistent with the proposed retail strategy
- whether the overall feel of the store, including promotions and signs, made it pleasing to shop at

- whether the store was neatly organized and the aisles were clear
- whether the format used (grid, racetrack, modified racetrack, boutique/free-form) was effective for customer flow
- whether lighting and racks did a good job of highlighting merchandise, structuring space, capturing a mood, and/or popping selected merchandise
- whether they made creative use of signage, wall space, vertical merchandising in a way that was consistent with their store image
- whether they promoted impulse purchases or made it easy to buy
- whether they provided customer service (messages to greet shoppers; messages to facilitate the shopping experience).

The memos were assessed on student knowledge and comprehension of the retail concepts, analysis of the shopper data and their observations in light of this knowledge, their evaluation of alternative recommendations based on the analysis, and the reasoning behind recommendations. Students were evaluated based on whether they constructed cogent arguments in favor of the recommendations that were rooted in the data and information from their observations instead of speculation or unsupported opinion and whether they qualified their responses to acknowledge the need for additional information. They were also evaluated on whether the document was well-written and well-organized.

Students were also assessed on their understanding of the concepts and their application in an exam. The questions were not identical to an exam offered in a previous semester but tested similar learning objectives. The average exam grade for the class that participated in the SL assignment was not significantly different from the average exam grade for the class that participated in a retail portfolio assignment (that included the retail strategy and drawing their store concepts in two dimensions) the previous semester.

Evaluation and Outcomes

Student Feedback

Students were asked to provide feedback verbally on three separate occasions during and after the project. The verbal feedback followed the ITCS training session and two peer review sessions. The verbal feedback was structured in a “continue, start, stop” format. One student from each group represented the group. The students reported what they wanted to continue (e.g. feedback sessions with ITCS to make their ideas closer to what they envisioned), what they would like to see added to the project (e.g. more options for merchandise that could be transferred for free), and what they

would like to see taken away from the project (e.g. evaluation based on the number of items transferred, since some stores attracted more visitors than others).

In addition, students were asked to participate in a survey about their experience with the project and the course. Twenty six out of twenty nine students completed the survey in exchange for course credit. The survey was administered online outside of class time using an online survey software. There were no missing responses. Table 2 shows the average responses on a five point scale anchored by 1 = Strongly Disagree and 5 = Strongly Agree. Some of the items were written in a positive way and some of the items were written in a negative way. The table shows the percentage of respondents on either side of the neutral (Neither Agree nor Disagree) midpoint.

Most students agreed or strongly agreed that the project gave them the opportunity to apply their understanding of retail strategy (96.2%), allowed them to apply their understanding of visual merchandising techniques (92.3%), and allowed them to be creative (92.3%). However, twenty three percent did not see the application of the virtual world to retailing in real life and forty two percent did not feel the project gave them an opportunity to observe shopper behavior. Further, forty six percent felt the virtual component of the project detracted from the learning goals. The students were split on their responses to the item that asked them their level of agreement with the statement, “When things do not work out the way you plan them to, it distracts from other learning goals.” This may reflect individual differences in tolerance for ambiguity.

Table 2
Student Survey Responses

<i>Items</i> (Anchored by 1= Strongly Disagree and 5 = Strongly Agree)	<i>Mean</i>	<i>s.d.</i>	<i>% Agree or Strongly Agree</i>	<i>% Disagree or Strongly Disagree</i>
The project allowed me to apply my understanding of retail strategy	4.12	.431	96.20%	0%
I could not see the application of the virtual world to retailing in real life	2.65	.977	23%	57.60%
The project allowed me to apply my understanding of visual merchandising techniques	3.96	.662	92.30%	7.70%
The project allowed me an opportunity to observe shopper behavior	3.15	1.156	53.90%	42.30%
The project allowed me an opportunity to think critically about retail issues	3.69	.736	69.20%	7.70%
The virtual component of the project detracted from the learning goals	3.23	.908	46.10%	26.90%
When things do not work out the way you plan them to, it distracts from other learning goals	3.15	.967	38.50%	30.80%
I felt I had the opportunity to be creative in this project	4.23	.587	92.30%	0%
The ability to analyze shopper data was a valuable learning experience	3.46	.905	57.70%	19.20%
Working with a group detracted from the learning goals	2.35	.797	7.70%	61.50%

The open-ended responses included positive and constructive feedback that shed light on the scaled responses. Given the structure and content of the open ended responses, the thoughts were categorized based on commonalities. A multi-coder content analysis was not deemed to be worthwhile since the responses were part of a survey and were short and fairly straightforward. The common responses included:

- ***It was neat/cool to have the opportunity to develop my own store*** (four respondents): Three students liked the opportunity to be creative, and two of the students applauded the novelty of deviating from a traditional lecture/project format in the class. One student said, “The SL project was fairly interesting, and gave a new twist to traditional lecture methods. The project challenged students through collaboration of group work, sparked creativity and allowed the class to learn as a whole. I enjoyed the project, but I would make the relationship between the designers and the inventors much closer and more accessible.”
- ***We needed more time*** (seven respondents): Among the constructive open-ended responses, seven students suggested a longer period of time during the semester allocated to the project. The reasoning included the opportunity to get more familiar with SL, to give ITCS more time to develop the stores, and to allow for the students to promote the stores via word-of-mouth. Two students suggested a longer “Open Mall” period (so the data was more accurate and so they could go out to directly promote their stores in SL). One said, “Working with SL was a great learning experience about the retail environment. Being able to be as creative as we wanted was really fun. Some things that I would improve for the next project would be for the groups to meet the actual designer of their store, having a little more time to get to know the program, and possibly having more open mall days for selling opportunities.” A third suggested multiple Mall Days at different points during the semester so they could make adjustments to the store based on the shopper responses and get feedback from the instructor on their store’s performance.
- ***We wanted more one-on-one interaction with ITCS*** (eight respondents): Many respondents desired the opportunity to work more one-on-one with an ITCS person to help make sure the stores ended up the way they wanted them. Two students expressed frustration regarding merchandise limitations (inability to wear some of the merchandise they sold and merchandise not displayed according to specifications so they could not fully apply what they learned) and a third felt limited by confusion about what could and could not be sold. One example quote is, “I really enjoyed the experience. SL was a program I was unfamiliar but I felt in the end it was beneficial. I do however wish that we were able to be more creative with our store concepts and merchandise. I felt that when the store wasn’t able to come out as our group had envisioned, it was harder to stay motivated.”

Although they were less common themes, it is important to note that one student suggested the instructor set up the stores in advance so the students know what they are working with and can focus on the learning goals. Two students commented on the lack of realism – one because the avatars were rushing around and s/he did not feel normal shoppers behave that way, and the other because the lack of prices reduced the realism.

Discussion and Reflections

Instructor Reflection

The project fulfilled the instructor's expectations because it gave students an opportunity to apply what they learned about retail strategy, increased student familiarity with a technology that was new to them, forced them to make decisions about what to do and to solve problems when things did not go as planned. Therefore, they had to go beyond creativity in the development of their retail spaces to creativity for problem solving, which is desirable in the marketplace. As noted by Ackerman, Gross and Perner (2003), some students had a low tolerance for uncertainty and confusion. However, in the memos, most student groups made connections between the course content and the application, and were able to support their recommendations with the data and their observations as they related to the course content.

As an individual, the instructor was not familiar with SL prior to her introduction from ITCS. Therefore, the instructor relied heavily on ITCS resources not only for the store development, but also for creating/finding merchandise, answering student questions and recruiting avatars to shop on Mall Day. ITCS was extremely responsive and devoted a tremendous amount of time to the project. That said, increasing the instructor's personal knowledge of the tools and SL environment will give the instructor an opportunity to be a better guide for the students.

Working through this project for the first time, a couple of students verbalized that they felt like guinea pigs. A simpler task, where students had fewer decisions to make, may have been preferred the first time out. Developing stronger relationships between the students and the project team at ITCS may have increased student awareness about the amount of time and effort that went into their stores, which may have increased their flexibility. Better planning on the instructor's part and a longer lead time to become more familiar with the technology and the availability of merchandise may have helped curtail some of the confusion.

Extending the project across the semester, as recommended by the students, may have given students the opportunity to not only reflect on the experience but also apply their increased understanding from that reflection. In addition, as expressed by Daly (2001), the fact that the exercise was experiential could lead to haphazard learning if the experience is not connected to the course content. Although the instructor used SL examples in the presentation of course materials, the instructor could have integrated it more effectively so all of the students understood how things were related.

Finally, whenever resources are used to enhance the educational experience, it

is appropriate to do a cost benefit analysis. The benefits of working in a virtual world are substantial since students do not normally have an opportunity to execute their plans and analyze the results. However, the time and resources that were devoted to this project were also substantial for a class of 29 students. The resources allocated to this project could be spread across future students who have the opportunity to learn from a similar exercise, but it is also important to think of ways to make it more efficient to plan and execute the project for ITCS.

There is a trade-off between allowing students to be creative and the resources involved. Asking students to work with available merchandise may provide boundaries to their creativity and save time and effort. It is also important to compare the resources associated with this project to other opportunities for experiential learning in retail, like a simulated offline marketplace (Russell-Bennett, Rundle-Thiele, & Kuhn, 2010), online stores (Daly, 2001), aiding an existing business online (Tuten, 2009) or offline (Young, 2010b).

Conclusion and Recommendations

In spite of the challenges, the SL environment provides a unique context for applying concepts learned in Retail Management in a controlled environment where you can quantify shopper responses. The steps in the project included: reinforce understanding of the concepts related to retail strategy, create a retail strategy, design a store to achieve the desired outcomes based on the proposed retail strategy, analyze shopper behavior in the implemented concept against the desired outcomes, synthesize the findings to make recommendations for future merchandising and retail strategy based on the analysis, and reflect on the experience. These steps were designed to move students forward toward critical thinking in the context of an experiential learning process, through the use of a virtual world. With additional refinement and collaboration with other disciplines and universities, the project has exceptional potential to improve student preparedness for the business marketplace.

In addition to allowing a longer time for the project and limiting the options for students to preserve resources, it may be beneficial to make the project interdisciplinary and/or to involve other universities. Interdisciplinary projects could include partnerships with interior design, graphic design, advertising, and service marketing courses (e.g. experimenting with different service levels and/or different types of avatars). Another opportunity for an interdisciplinary project would be a joint application with an IS class, where the IS class could do programming, requirements analysis, project management, and apply their understanding of business process (Dreher, et al., 2009).

Working with other schools could increase avatar awareness of the Mall Day. If more students were involved, the process could include a competitive bidding and/or negotiation exercise for students to add merchandise to their stores. Adding a competitive component may encourage better communication of desired outcomes and increase the students' motivation to perform well and work with ITCS. Further, extending the project internationally could provide students with the opportunity to identify cultural differences that may affect shopping behavior first-hand.

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Appendix

Link to Mall

<http://maps.secondlife.com/secondlife/ECU%20IV/60/103/24>