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Running head: OAKLAND A'S BUSINESS SIMULATOR

Abstract

Teaching a graduate level sport finance class can be quite complex. With a variety of concepts, such as pricing, budgeting, and public funding, to convey in a limited amount of time, new forms of pedagogy are necessary to assist instructors as this technologically-advanced generation enters into academia. Subsequently, technology has been created to apply basic concepts related to finance to the complexity of a professional sports organization. One such program is the Oakland A's Baseball Business Simulator. Through interviews and "emotional recall" (Ellis, 2004), this evaluative case study seeks to determine the effectiveness of this technology within this environment.

Key Words: Business simulation, sports business, sport finance, web-based simulations, business of baseball, case study.

Introduction

Finding innovative methods to teach material is critical to enhancing the learning process. This is particularly true in classes with a reputation for being quite complex. In a graduate level sport administration or management program, the financial management course is one that fits this description. Subsequently, technology has been created to apply basic concepts related to finance to the complexity of a professional sports organization. One such program is the Oakland A's Baseball Business Simulator ("Simulator" or "Simulation").

The Simulator is a basic web-based business simulation technology applied to a Major League Baseball franchise that requires only a standard computer with an Internet connection. The computer program essentially simulates 15 years of managing the finances of a Major League Baseball franchise. Each "year," students make roughly 100 decisions related to the finances of the organization such as player salaries, ticket prices, television and advertising expenses and revenues, and so on. Applying what is called "appropriate randomness," the program will provide results after each season's decisions are submitted. Students are evaluated based on their ability to increase revenue and overall franchise value. Additionally, a point system is implemented in the program to reflect the success or failure of each simulation "run". At a cost of $12.50 per student, each student can run through the entire 15-year period as many times as he or she wants.

The Simulation is used not only to provide an element of competition and engagement to the class but to add a level of understanding to the material that is presented in the textbook or other readings. For example, to illustrate the importance of financing methods for new facilities, one might have the students go through the Simulation several times using different methods of acquiring funds for building a new stadium for the A's, followed by a discussion of which methods were more successful and why. By relating the material in the textbook and in lectures to a real-world example, the Simulation aims to enhance student comprehension of key topics related to sport finance.

A goal of this case study research was to determine if the Simulator engaged the students in the material that would otherwise be presented in the form of lectures and readings. A further objective was to determine whether the Simulator helps students understand the course material by presenting a real-world example and allowing them to apply the concepts. It is based on these criteria (engagement and comprehension) that an evaluation will be made on the effectiveness of the Simulator. This evaluative case study uses the professor's recollections of the class ("emotional recall") and several in-depth, semi-structured interviews with students and the other professor to evaluate whether or not the Simulator was indeed an effective teaching tool in this environment.

Literature Review

Purpose of Simulation Technology in an Academic Setting

Business simulations have become very popular teaching tools in universities and business schools across the country. In fact, most top business schools now incorporate some sort of simulation in the curriculum (Young, 2005). Simulations are "designed to give students opportunities to begin practicing the higher-level thinking the profession demands, where the learner identifies problems, finds relevant information, acknowledges the influence of uncertainties on potential solutions, and then communicates findings to target audiences" (Springer & Borthick, 2004). Simulations are indeed useful tools in business classes which is why the Oakland A's Baseball Business Simulator was developed specifically for this context within sport finance.

This program, like other web-based simulations, provides online support in the form of links to references, a message board, and other useful information (Lucas, 2001). While the primary goal of simulations is to give students an opportunity to understand key concepts by giving them hands-on, real-world experience, other benefits include an enhanced ability to work through the decision-making process (Lucas, 2001). The Oakland A's Simulator has over 100 decisions to be made each year. Like other business simulations, balancing a budget and maximizing revenue require careful and strategic decision-making and attention to detail. This is particularly relevant as most simulations will have profit or income and overall enterprise value as their primary criteria for success

(Hoaas, 2002). The Oakland A's Simulation is no different, although it does consider other factors such as winning percentage and championships won.

Though most commonly used in business or finance related classes, simulations are also used in law classes. Similar to the practice of mock trials, these simulations have value because of the ability to manipulate facts that require critical thinking and illustrate different concepts. For example, one law-based program simulates the Bosnian War Crimes Trial and is intended to illustrate the fact that international law is about law and politics simultaneously (Jefferson, 1999). Business simulations are essentially no different as they may alter the state of the economy or demand for a product in order to elicit a change in business strategy.

Simulation Technology in an Industry Setting

Previously considered only for academic uses, simulation technology is now being used in professional capacities as well. Over 60% of U.S. corporations have utilized some sort of simulation technology (Pile, 2004). Executives consider simulations valuable by having employees "gain a better understanding of corporate goals and challenges and see where they fit into the big picture" (Solomon, 2002). Further, "they can be especially helpful in getting employees to better align their work with business strategies, particularly if they're new strategies" (Solomon, 2002). In the high-stakes world of business, trial and error is not an accepted practice. Simulations allow people to learn from experience

which is how most adults learn most effectively (Pile, 2004). It is for this reason

that simulations are now popular practice in the business world.

Comparison between Simulations for Industry and for Academia

Although the programs are the same, there are obviously many differences

between running a simulation for an academic audience and a professional

audience. First of all, the use of a simulator is referred to as "simulation training"

in an industry setting and as "simulation education" in academia (Banks, 2000).

While this is a small difference, it does speak to the intent of the program. Banks

(2000) outlines several other categories in which simulations differ between

industry and academia such as objective, diversity of audience, nature of the

students, teaching method, pace, class size, evaluation, intensity, assignments,

quality, and use of training.

Of the aforementioned criteria, several are noteworthy. First of all, the

diversity of an academic classroom is likely to be more homogeneous due to the

similarity of goals and interests (Banks, 2000). This is particularly true at the

graduate level where the goals and interests of the students tend to be more

narrow and specific. Similarly, the coursework also tends to get more narrow and

specific.

Secondly, the size of the class is also critically important. Though not an

issue in the classroom in this study, undergraduate class sizes can be rather large.

Teaching a simulation to large classes can be difficult (Banks, 2000) because

teachers must teach both the critical concepts as well as the use of the technology itself, which may be difficult.

Of the criteria set forth by Banks (2000), the last noteworthy idea is that of evaluation. In other words, how will the participants be evaluated upon completion of the simulation? While professional participants are generally not graded for their performance, academic students will almost always be evaluated with a grade. Banks (2000) points out that "grades are the carrot and can conflict with learning." Indeed, if the focus is on getting a good grade rather than comprehending to concepts, the primary objective of the simulation is lost. One of the benefits of this type of teaching tool is that it does allow for mistakes without consequences (besides negatively affecting a grade). Solomon (2002), quoting the manager of application development in Ameren's IT department, states that "learning is made up of mistakes, and the simulation exercise allows you to make those mistakes in a controlled environment."

How to Best Utilize Simulation Technology

It is ultimately the responsibility of the teacher/instructor/facilitator of a simulation to maximize the teaching benefit of that particular program. "In the constructivist approach, the teacher's role is to pose problems in realistic, meaningful contexts, model behaviors that facilitate learning such as collaboration and reflection, and ensure that learners attend to inconsistencies and errors arising

in their mental representations. In essence, the teacher becomes a coach rather

than a presenter of knowledge" (Springer & Borthick, 2004).

Making sure that the students master the material is obviously critical in

making a simulator worthwhile. Helping students realize that it is not a game that

requires simple manipulation but rather a teaching tool with valuable lessons

within it is an essential message to convey (Chiodo & Flaim, 1993). Most

classroom simulation runs will lead to a concluding discussion regarding the

concepts, observations, challenges, and lessons. Chiodo and Flaim (1993) suggest

that until students have the opportunity to reflect upon the experience of running

through the simulation, no real comprehension of the material will take place.

To ensure that students and teachers take the time to truly understand the

material, Chiodo and Flaim (1993) suggest a six-step debriefing model. The first

step, called "decompression," involves simply taking time to relax after running

the simulation. This is a key step as many simulations take hours to complete.

The second step, called "facts," is simply a review of the factual information.

That step is followed by "inferences," which includes focus questions and a look

at causal relationships within the simulation. In the next step, called "transfer,"

students are to take time to apply the lessons in the simulation to the real world so

they have to apply the concepts learned in the simulation to a real world example.

Then, students are to try to make generalizations and rules from the simulations in

a step called "generalizations." Finally, students should apply these rules and

generalizations to the real world in the step called "applications." Chiodo and Flaim feel that applying these steps to a simulation debriefing will ensure that the program is effectively communicating key concepts.

Does Simulation Technology Work?

Perceptions of the effectiveness of simulations vary. A study completed at Wharton (one the nation's top business schools at the University of Pennsylvania) indicated that 87% of students found the simulation "enhanced" or "significantly enhanced" their level of engagement in the class (Young, 2005). Clearly, if used in the proper setting and administered effectively by the instructor, simulation technology can be useful in terms of engaging students and subsequently increasing comprehension.

Student interest will also have a major impact on the effectiveness of a simulation. Springer and Borthick (2004) placed students in two categories. The first category was highly excited and highly engaged in the simulation and the concepts. They were also excited about having gained real world knowledge. The second category of student did not want to engage themselves in a new type of assignment. Springer and Borthick (2004) stated that these students "would rather avoid the ambiguity inherent in solving real business problems. They would rather continue in the familiar mode – a good grade with minimal thought." As with any classroom, there will always be a disparity in the overall interest level among the students.

From the industry perspective, not every evaluation of this technology is as positive as it was from Wharton. Pile (2004) states that "many simulation efforts have failed to deliver genuine and lasting change for companies. As a result, simulations are often dismissed as having more entertainment than educational value." Companies obviously want to see a return on their investment in terms of increased productivity, efficiency, and/or revenue.

Methodology

The methodology used in this research is in the context of constructivism. Springer and Borthick (2004) state that "learners construct their knowledge rather than just receive it, an approach to learning known as constructivism." The analysis accounts for individual perspectives, attitudes, abilities, and perceptions of the student users.

Participants

In the fall of 2005, one of the authors assisted in teaching a graduate level sport finance course at a mid-sized liberal arts college located in the western U.S. where the Simulator was used. The class was called Financial Management of Sport Organizations and was held in the fall of 2005 at a mid-sized liberal arts college located in the western United States. It is a graduate level class designed for students with a focus in Sport Administration/Sport Management. The class was composed of 12 students. Eight of these students were doctoral students and the remaining four were master's students. One of the authors was responsible for

administering the Simulator in the class as the professor was previously

unfamiliar with how it worked. Finally, the professor was also present in the

classroom. She gave the majority of the lectures that were not related to the

Simulator and gave and graded all of the assignments.

The author responsible for administering the Simulator in the classroom

conducted "emotional recall" (Ellis, 2004) in order to express his opinions and

feelings about how well the simulation worked in this class. This process

involves carefully reflecting on a previous experience. This method of data

collection was ideal for this study as it allowed him, the primary researcher and

primary administrator of the simulation, an opportunity to input his experiences

and observations into the data. This process was performed prior to other

methods of data collection in order to eliminate potential biases due to gathering

the other data and its influence on the emotional recall.

Semi-structured interviews were also included in this research. Not every

person in the class was interviewed. An email was sent to solicit interview

participants and the first two doctoral students and one master's student were

chosen to be interviewed in an effort to be consistent with the ratio of the class.

Critical to this research was the interview with the professor. She had

taught the class previously and could reflect on the differences in class

performance and class engagement between the students using the Simulator and

previous students who had not used it. All of the interviews were semi-structured based on the interview questions listed in the Appendix.

Method

This is an evaluative case study. This is appropriate for this kind of evaluative research because although one could quantify student performance in a quantitative study with grades and other methods of evaluation, it is difficult to quantify students' level of engagement. Further, quantitative research is also not appropriate for this study because there is no need to generalize the data. The experience of this particular class is important; however, each classroom has its own unique setting with its own unique syllabus, learning outcomes, and combination of personalities. The purpose of this study is not to generalize. Instead, the purpose is to shed a little light on the impact and effectiveness of simulation technology. The purpose of this study is to use thick description and open-ended interview questions to make an evaluation as to whether or not this technology was effective in this particular setting.

Besides describing and interpreting, this study also intends to be evaluative. In other words, not only does the research want to describe the nature of the class and interpret the actions of the people involved, it also wants to make a final judgment as to the effectiveness of the simulation based on the criteria set forth in the research question, specifically, level of engagement and comprehension. Guba and Lincoln (1981) wrote that case study was the best form

of research when doing an evaluative study (Merriam, 1998). They state that "evaluations of worth must be grounded in field studies of local contexts" (Guba and Lincoln, 1981, p. 44). Further, citing Kenny and Grotelueschen, Merriam states that "case study is appropriate when the objective of an evaluation is 'to develop a better understanding of the dynamics of a program'" (Merriam, 1998, p. 39). The primary objective of this research is to evaluate the effectiveness of this web-based program so case study is a suitable form of research for this goal.

Internal Validity

There are several attempts to address the issue of validity in this study. First of all, using "emotional recall" as a primary mode of data collection can threaten the validity of the study. To make sure that a possible bias does not threaten the research, the interview elements are included in the methodology. Interviewing the professor, an interested observer, provides a strong and qualified opinion in this study. The student interviews also add validity to the observations as well as the observations of the professor. Further, all participants were in the class and utilizing the Simulator for the entire semester (three hours per week for sixteen weeks) so the time element of the setting is consistent and the length provides a wealth of experiences from which to draw. This adds value to the study as the aspects of the class that were noteworthy for the professor may be completely different than what the author considered noteworthy, which may also be different from what the students took from the experience.

External Validity

The depth of the author's "emotional recall" will do the most to address the external validity. It is likely that each classroom develops its own personality. This makes creating generalizations about any classroom extremely difficult when doing a case study. It does appear, though, that this research has value when applied specifically to graduate level sport finance classes considering the use of the Oakland A's Baseball Business Simulator. More research is necessary to apply these findings to an undergraduate classroom.

Reliability

The issue of reliability will be addressed through multiple sources of data collection methods as well as a detailed audit trail. The references to the "emotional recall" along with the transcripts from the open-ended interview questions should address any concerns about the reliability of this study.

Analysis

The data was analyzed using a constant comparative method. Merriam (1998) described the process of analyzing using this method: "The researcher begins with a particular incident from an interview, field notes, or document and compares it with another incident in the same set of data or in another set" (p. 159). These comparisons lead to the formulation of categories, which are also compared until a theory can be developed (Merriam). In this study, this method of analysis was used to compare the stories and opinions expressed in the

interviews and the "emotional recall". Subsequently, these stories and opinions were used to evaluate the Simulator based on two criteria: engagement and comprehension.

Assuring Quality Research

Lincoln and Guba (1990) listed four criteria by which qualitative research should be evaluated: resonance, rhetoric, empowerment, and applicability. These criteria are applied to this research. First, in discussing resonance criteria, Lincoln and Guba claim that the researcher "has an obligation to be self-examining, self-questioning, self-challenging, self-critical, and self-correcting" (1990, p. 207). Using the "emotional recall" method allowed the authors to be very critical of the data. Reading and re-reading the transcripts for this as well as the interviews ensures that the author is self-critical of the data.

By rhetorical criteria, Lincoln and Guba (1990) are referring to the overall organization and style of the writing. This paper uses simplistic writing along with the logical organization that is associated with most research papers to ensure the readability of the paper. This study should enable professors to effectively implement a simulation program in a similar context.

The final criterion, applicability, is described as "the extent to which the case study facilitates the drawing of inferences by the reader that may have applicability in his or her own context or situation" (Lincoln & Guba, 1990, p. 211). The applicability aspect of this study is quite apparent. Giving instructors

both an evaluation of the effectiveness of the Simulation along with

recommendations for how best to implement the Simulation into a sport finance

class is the main value of this study in terms of application.

Findings

The research results will be separated into two parts. The first section

contains a discussion of how the Simulation affected student engagement in the

class. The second section addresses how the Simulation affected student

understanding of the material in the class.

Student Engagement

As this generation of MTV watchers and Nintendo game players enters

into academe, the need for new forms of interactive pedagogy is increased. The

professor of the sport finance class noted that although professors do not have an

obligation to "entertain," they do need to provide some sort of interaction and

help to apply concepts and theory to the real world. This Simulation is designed

with this in mind. Students initially became very interested in the class and the

prospect of using a simulation to apply key concepts in the class. One doctoral

student, Jerry, even referred to the Simulation as "a game."[1] Indeed, it was the

competitive aspect of the Simulation that worked to engage the class the most.

Tim, a first semester master's student, said that he "paid more attention during

class because he wanted to do well in the Simulation." In addition to providing

[1] All names in the article are nondescript pseudonyms.

such outputs as revenue, attendance, winning percentage, and overall franchise value, the Simulation also incorporates a point system based on these outputs. After each "season" that the students complete, they are given a certain number of points and the Simulation provides a "high score list" for the class. Tim became obsessed with having the high score for the class. He ran through the Simulation several times in an effort to have his name and score at the top of the list. The desire for "bragging rights" quickly became the focus of this fairly cohesive and tightly knit class. According to Jerry, this "interaction made it feel more engaging."

However, as the course of the semester continued, the initial excitement of this new technology waned and students began to lose interest. There began to be some separation between the material that was covered in the class and the concepts that were utilized in the Simulation. Further, eight of the twelve students were very excited in the first few weeks and ran through the entire course of the Simulation several times (it takes one to two hours to run through all fifteen seasons in each simulation run and account for each of the approximately one hundred decisions each season). These students seemed to feel as though they had done all they could do with the Simulator. Jerry was one of the students who initially ran through the Simulation at least five times. In his interview, he stated that he learned how to "manipulate" the program to give him the outputs and score that he wanted. As a result, the data indicate that this program is best used

for a shorter period of the class, probably about six weeks. Further, particular attention must be paid to how the instructors tie material in the class to the Simulation. Students became disinterested when they did not see a purpose or application of the Simulation to the material in the class.

Student Comprehension

Just like the data for the "student engagement" section, the data for this section was quite consistent across all the interviews as well as the "emotional recall". The overall feedback on the Simulation was quite positive. Adjectives like "fun," "interesting," and "interactive" were used repeatedly. However, as it relates to student comprehension, there was some room for improvement. The primary observation was the apparent disconnect between the material that was covered in the class lecture and reading assignments and the concepts that were presented in the Simulation.

The competitive aspect of the program was tremendous for student engagement; however, sometimes it conflicted with the second objective of increasing student comprehension. As mentioned earlier, some of the students became so familiar with the program that they were able to manipulate the program in order to yield the best results. Tim indicated that his process does not always involve doing what is "ethical, practical, or realistic." The professor of the class supported that opinion by saying that students "didn't do what was rational" and "focused on what would get them the highest score."

One of the purposes of the Simulation is to apply the knowledge gathered from the literature on sport finance to a real world situation. However, the one major flaw of the program is that it often implied a virtually unlimited amount of money to which to gain access. Students are able to spend freely on players, marketing, scouting and player development, and front-office staff to see an immediate spike in revenue. However, this scenario does not reflect the current financial situation of the Oakland A's. Jerry suggested that this would be a great simulation if it were "the New York Yankees Baseball Business Simulator" as a result of the positive outcomes from these extravagant spending decisions. This is the primary way that students felt they were "manipulating" the program and why they felt as though it was not always truly reflective of the Oakland A's franchise. The actual Oakland A's employ a different model of success which involves more frugal spending habits and a very limited budget. The professor effectively summarized this point by stating that "the sim held the students accountable for the concepts because they had to base decisions on existing data. However, what the literature says is most appropriate/effective didn't always result in the highest score."

There were several key positive aspects of the Simulation related to student comprehension. Some of these were planned and some were merely a byproduct of the program. First and foremost, students really enjoyed learning about how teams finance new stadiums. Even Jerry, a doctoral student with

significant experience with sport finance and the business of baseball, admitted that he knew little about how a stadium gets funded and that the Simulation was able to teach him many of those concepts.

Second, students were able to grasp the vast array of decisions that are required to successfully run a professional baseball franchise. With over one hundred decisions to make each simulated year, students were "forced to look at more financial indicators with the Simulation" according to the professor. The Simulation also employs a concept called "appropriate randomness" whereby an element of uncertainty is factored into the outputs. In other words, the same decisions may produce entirely different results in different simulation runs. The professor considered this uncertainty to be a major benefit of the Simulation citing that students need to understand that there are certain things that are beyond their control such as a rise in oil prices, a terrorist attack, or a natural disaster. Although these phenomena are not directly incorporated into the Simulation, the program is effective in showing students that they cannot control *everything*. The Simulator does allow the general economy to fluctuate and that impacts the outcomes.

As was expected, students strongly disliked this concept of uncertainty or randomness. Greg, another first semester doctoral student, expressed his frustration with these "behind the scenes factors," saying that "students want to

feel as though they have more control over the final result instead of other issues that don't appear to be present."

The Simulation is essentially a database filled with cause and effect relationships. For example, lower ticket prices and increased marketing expenditures will generally lead to higher attendance. One of the great aspects of this program is that it is outcome-based. In other words, students get to see what the effects of their decisions are. The professor stated that "it makes them think" and "make decisions based on data." Further, she indicated that there are certain concepts, such as the various methods for financing a stadium, which are best taught using outcome-based learning. Another benefit was that in order to get the data to make better decisions, students were forced to do extra reading. In the rapidly changing field of sport finance, reading the current literature on the subject is essential to understanding it.

Implications

Implications for Sport Management

With an increase of sport administration/sport management programs throughout the United States, new pedagogy is always critical for capturing the interests of students who are becoming more technologically savvy and desire more interactive teaching methods. This is particularly true for the area of sport finance. There is a dearth of text books available on the subject and also a shortage of experts. This tool will help professors who are not savvy in every

area of sport finance to convey certain concepts more effectively. This research indicates that professors can confidently apply the Simulation to a sport finance class and much of the learning will occur just by the students running through the Simulation and reading the information that accompanies it.

The evaluation in this study indicates that, if applied correctly, the Oakland A's Baseball Business Simulator can be a very effective tool for increasing student engagement and understanding. Applying the Simulator correctly involves a number of key components. First, the program will cease to be an effective teaching tool if it is utilized over the course of an entire semester. Students will be engaged in the program for a period of approximately six weeks until they reach a point where they have discovered all of the nuances of the program as well as ways to manipulate the program to achieve the highest possible score.

This competitive aspect of the program is a strength up to the point where students become more concerned with achieving the highest score rather than appropriately applying concepts from the material in class. Instructors should acknowledge students that achieve high scores; however, they should also reward students for implementing effective strategies that may not have been rewarded by the Simulator's points system due to the concept of appropriate randomness. Assigning a paper where students outline and justify their goals, strategies, and

tactics is an effective way to reward students for having a sound business strategy as opposed to simply having the highest score.

This study also showed that attention to detail is necessary when relating the concepts presented in class to the Simulator. This responsibility lies squarely on the shoulders of the instructors who are responsible for creating the class outline for the semester. Both instructors in this case study agreed that more careful planning was needed to make sure that the concepts presented in class were then immediately applied in the Simulation. For example, one of the major strengths of the Simulation is showing how professional sports stadiums are funded. The various sources of public funding were outlined in the text book and the lecture. Additionally, the links on one of the Simulation pages contained additional information about the topic. With all of this information, students can easily apply what they have learned on the topic in a subsequent simulation run. According to the findings, this is a successful way to administer the program for each individual topic, such as public funding for a new stadium, marketing expenses, payroll, ticket pricing, and various sources of internal and external revenue.

Future research should continue to monitor the effectiveness of the Simulator. The technology within the program will continue to improve as the creator continues to enhance it. Also, the familiarity of the instructors with the program and how to incorporate it into the course materials will also become

enhanced over time. It would be beneficial to conduct this study over a period of time. Some of the unanswered questions that should still be analyzed are:

1)	Does more effective incorporation of the Simulation into the course material result in increased student comprehension?

2)	Does increased instructor familiarity with the Simulation lead to higher student comprehension?

3)	To what extent does this technology enhance student engagement and learning?

4)	How can instructors maximize the positive effects of this program?

5)	What is the optimal period of time to administer the Simulation?

Perhaps conducting a comparison of classes that used the program and did not use the program would have been a more effective way to assess the Simulation's effectiveness. Although the authors did ask the professor how this class appeared to be different from previous classes, the quality of her response is not comparable to the richness of the data that comes from conducting a case study and observing over the course of an entire semester.

Implications for Qualitative Research

There is substantial qualitative research that has been conducted on classrooms and the effectiveness of certain types of pedagogy. The biggest contribution of this study is the utility of the "emotional recall". Having instructors critically evaluate how they taught the class and the effectiveness of their methods is a powerful tool. Based on the author's "emotional recall", he learned a tremendous amount about how to effectively teach and engage a class. Further, the instructor is in the unique position of observing a class during the entire semester. Experienced instructors will be able to assess each class based on their previous experiences. Inevitably, some classes become more engaged or comprehend the material better than others. "Emotional recall" allows instructors to reflect and determine what the causes of those differences are.

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Appendix

Interview Questions

Interview for the professor of the class:
1. How long have you been teaching at the graduate level?
2. What are the greatest benefits of teaching?
3. What are the greatest challenges of teaching?
4. How long have you been teaching sport finance?
5. What has been your experience teaching the class before the fall of 2005?
6. What have been the positive aspects of the class?
7. What have been the greatest challenges in teaching the class?
8. How did you become aware of the Oakland A's Baseball Business Simulator?
   a. Why did you want to introduce it to the graduate level sport finance class?
9. What do you think the simulator is designed to accomplish?
   a. Did you feel like it achieved those goals?
10. How do you feel like the simulator affected student engagement in the class?
11. How was the level of student engagement different from previous sport finance classes?
12. How do you feel that the simulator affected student understanding of the material?
13. How did this classes understanding of key concepts compare to previous classes?
14. What was the student feedback on the simulation like?
15. What is your overall evaluation of the effectiveness of simulator?
16. Will you use this program again? Why or why not?
17. What are some things that you might do differently in an attempt to make the simulation more effective in increasing student engagement and comprehension of the material?
18. Any final comments?

Interview for students:
1. What was your academic level during the fall of 2005 when you were enrolled in the sport finance class?
2. What other coursework had you taken any coursework related to sport finance prior to the fall of 2005?
3. Please describe your overall experience in the sport finance class?

4. Had you ever used the Oakland A's Baseball Business Simulator before this class?
5. Please describe the positive aspects of the program?
6. Please describe the negative aspects of the program?
7. How do you feel the program affected your engagement in the class and the material?
8. How do you feel the program affected the class's overall engagement in the class and the material?
9. How do you feel that the program affected your level of understanding of the material?
10. How do you feel that the program affected the class's overall understanding of the material?
11. How could the use of the program in the class been altered so that it was more effective?
12. If you were teaching a sport finance class, would you use this program? Why or why not?
13. Any final comments?