

DEVELOPMENT OF A HYBRID VERSION OF IB 303
and
Development of An Interactive Currency Exchange Rate Game

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Fall 2009 through Spring 2012

This report has three sections:

Introduction / Overview of the Project

Phase I Development of IB 303 as a hybrid course

Phase II Development of an Interactive Currency Exchange Rate Game

Introduction

This project consisted of two separate but closely related major activities.

The initial scope was to develop a hybrid version of IB303. In my opinion, this course was a prime candidate for presentation as a hybrid because of its course content and historical student composition.

IB303 deals directly with current geopolitical events (globalization, exchange rates, tariffs, trade balances, etc.). This course is primarily offered in evenings with a major portion of the class composed of non-traditional students. These students are the very ones that are most likely to experience the impacts of globalization every day. The evening news and print media are filled with stories directly related to the major learning objectives of this course and their very own jobs. These students should therefore be able to internalize out-of-classroom assignments as valuable knowledge that impacts their daily lives.

The second phase of the project developed through the Analysis Stage of phase one. In order to gain first-hand knowledge of course content, members of the Berks CLT observed one of my classroom presentations. The particular class topic that evening was the impact of currency exchange rates. In a subsequent meeting with CLT, we discussed my method of illustrating the volatility and impacts of fluctuating exchange rates on profitability. That meeting was the catalyst for developing an interactive game that focused on exchange rates.

Phase I
Development of a Hybrid Version of IB303
(International Business Operations)

When compared to Phase 2, this activity was less complex but nevertheless proved to be very beneficial to students.

The primary goal was to develop non-classroom assignments and assessment tools.

- Videos were screened for content relevant to course content and learning objectives.
- Discussion questions were developed to solicit critical thinking from students
- Quizzes were developed that required independent research on facts related to the videos

CLT offered access to numerous videos and provided technical assistance to ensure that all related materials (videos, quizzes, discussion boards, etc.) were readily available to students whether accessed on campus or at home.

Observations:

- Informal student comments on the hybrid components of this course were very favorable
- Comments within SRTE's frequently mentioned the positive aspects of being hybrid
- Posted discussions reflected high levels of critical thinking and candor
- Discussion boards allowed generally quiet students to express their opinions
- Classroom discussions became more focused, interactive and lively
- ANGEL provided automatic monitoring of participation

Conclusions:

- The Hybrid Version of IB303 has been a success
- The initial version of two videos and related assignments (China and Mexico) will be expanded and continuously revised to reflect the most current geopolitical issues

Phase II ***Design and Development of an Interactive Currency Exchange Rate Game***

Background

As an instructor at Berks, I attended numerous in-house workshops on pedagogy, student motivation, etc. During Phase I of this project, I attended a workshop on the benefits of “gaming” as an approach to student learning.

During one of our Phase I meetings, we discussed the viability of transitioning my course material on exchange rates into an interactive game. The challenge was to translate an in-class activity into an online game activity.

The game was designed to be played in two rounds.

Round 1 minimized choices: select a product and a currency
 watch the results over eight separate quarters

Round 2 more interactive, select a product and currency, buying decisions each quarter
 Analyze, Judge, Interpret

Major Activities

- Observe and review in-class activity
- Define Learning Objectives for the online game
- Design a Storyboard
- Collaborate with colleagues in Marketing and Economics to conceptualize scenarios
- Write and quantify the economic impact of various scenarios
- Randomize scenarios
- Create excel spreadsheets to analyze data and verify economics of scenario outcomes
- Develop and test game

Why an instructional game?

“Educational game designers strive to use the motivational properties of computer and video games to capture learners, enhance learning, and reach instructional objectives.”

Rothschild, Meagan K. (2008). *The Instructional Design of an Educational Game: Form and Function in JUMP*.

Learning Objectives:

Round 1

- **Recognize** the impact of fluctuations in exchange rate upon profit/loss when buying and selling products internationally.
- **Compare** the effect of a favorable exchange rate to an unfavorable exchange rate as it impacts purchase price, sales price and profit.
- **Recognize** the impact of fluctuations in consumer demand upon cost, sales price, and profit
- **Compare** the effect of increased or decreased consumer demand upon cost, sales price, and profit
- **Recognize** the impact of a tariff upon cost, sales price, and profit

Round 2

- **Analyze** ongoing changes in exchange rates
- **Judge** an appropriate time to make purchases based upon current exchange rate
- **Interpret** the impact of consumer demand upon anticipated profit
- **Analyze** the impact of factors beyond the control of the business person

Development of Related Skills:

Playing this interactive game helps develop the following skills that are not only applicable to any course of study but are also highly desired by employers:

Decision-making

Learning on the fly

Self-Direction

Analytical Thinking

Information Synthesis

Working Independently

Plan Development/Execution

Adaptation to rapid change

Strategic Thinking

Determining what needs to be done

Problem identification

Solution Development

Rapid Information Acquisition

Assessing Required Time, Cost and Resources

Timeline:

Fall 09	Idea proposed during T L I Grant meeting
Spring 10	Analysis and Design meetings
Summer 10	Develop storyboards and scenarios
Fall 10	Develop Round 1
Spring 11	Student Testing of Round 1
Summer 11	Extensive Testing of scenarios; Add “Accessibility”
Fall 11	Round 2 Developed
Spring 12	Presentation at Hazleton campus
Fall 12	Launch of Final Completed Game in IB303

Game Dimensions utilized in this instructional game:

Fantasy Storytelling Rewards	Mystery Randomness Uncertain Outcome	Rules / Goals Procedures Multiple Level Goals Time Sensitivity
Challenge Risk Scorekeeping Levels of Difficulty	Sensory Stimuli Self-Representation Multiple Detail Sound Effects Dynamic Graphics Visual Represented Choices	Control Choices Feedback Flexibility in Actions

Challenges during Design and Development:

- Conflicts in my teaching and professional schedules and those of Mary Ann Mengel
- Other concurrent projects and changing priorities
- Web Accessibility
- Calculations formatted as currency display in “Flash”
- Web Accessibility in “Flash”
- Extensive testing to verify embedded calculations of hundreds of all possible scenarios

Observations:

- Favorable comments from IB 303 student testing of Round 1 in Spring 2011
- Favorable comments after informal testing by selected faculty and friends
- Many expressed a strong desire to play Round 2 when it became available
- Students commented that playing the game reinforced classroom discussion and enhanced their understanding of the impact of exchange rates.
- Very favorable reception and reviews during “Gaming Colloquy” presentation at Hazleton Campus Spring 2012

Preliminary Assessment:

Student Comments after Playing Round 1

- I enjoyed the INTERNATIONAL BUSINESS GAME. I found it to be educational and informative. It gave me a better understanding of the daily monetary finances transaction that take place in the business world. I am looking forward to the next phase.
- It is [a] good game and I know more about tariff and the dollar [as it] appreciates or depreciates.
- This game was very informing, really shows how the exchange rate can change in such a short amount of time.
- This game will be a lot more informing when the 2nd round comes out, where you can interact more and you have to make more decisions.
- I tried it out tonight and first wanted to compliment you on the work thus far. It was fun and entertaining. I look forward to seeing round 2 with it being more interactive.
- I thought it was pretty interesting and entertaining. I would actually be interested in seeing Round 2. I thought there was a lot of good information. Keep up the good work!

Conclusions:

- The Interactive Currency Exchange Rate game has been a success.
- Playing the game will become a formal part of my IB303 course requirements.
- In order to gather further data about the effectiveness of this project, students will be required to evaluate the effectiveness of the game as it pertains to their understanding and mastery of currency exchange rates.

Note: The experience gained in developing the economic scenarios and testing the embedded calculations could provide a template and framework for developing interactive games in other business courses.

References:

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