Case Studies in Systems and Database Courses

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Abstract

In the traditional undergraduate setting, most professors gave standardized test employing true of false or multiple choice questions. Unfortunately the research showed the standardized test did not yield positive results for student learning. This author chose a different approach. Instead of taking the written final exam, students did final projects individually or in a team, by the use of real-life case studies. Then they submitted their group/individual paper, followed by the oral presentations. Students were required to ask/answer three or more questions during the final presentation. A metric was set up to grade the papers and presentations. Students enjoyed this type of learning very much and provided good to excellent evaluations. This paper gave the summary.

Keyword: Case Studies, In-Class Team Assignment, Final Projects, International Management, Global E-Commerce Management, Object Oriented Analysis Design, and Database System

Case studies were developed at Harvard Business School and other research institutions for 30+ years. Management, Systems and Database courses were taught at two undergraduate business programs. Job market is very good. A quick search on Indeed (2012) yielded 45,502 jobs for manager, 4,482 jobs for international manager, 6,560 jobs for systems analyst, and 11,236 for database. This search was done for Manhattan zip code 10001, and within a twenty-mile radius.

In the down economy, managers and tech specialists are still in great demand, CNBC (2012). Since 1996, internet e-commerce quickly became the new paradigm for doing business. The savvy managers developed the best computer systems to serve a huge customer database. Exxon, Walmart, Siemens, Toyota and other multinational firms, are finding new ways to serve 6.3 billion customers. It is the biggest challenge for systems and database professionals.

(A) Dominican College***

Dominican College is located 15 miles northwest of New York City. Division of Business Administration offers Bachelor of Science programs in Accounting, Computer Information Systems (CIS), Economics, and five concentrations of management: Financial Management, Human Resource Management, Information Systems Management (MIS), International Management, and Marketing Management. As of the Spring Semester of 2012, the College

enrolled 2100+.

Hsu taught all courses in CIS/MIS, served as the Director of Business Administration Division, from 1990 to 1996. Starting in 1992, Hsu also taught courses in International Management curriculum: International Business, International Finance, International Management and Global E-Commerce, Hsu (2006) and Hsu (2011).

1. MG 355 International Management course

This course aims to investigate specific issues in the governance of multinational enterprises. Topics include: foundations for international management, managing across cultures, strategic planning, managing political risks, organizing operations, decision making and controlling, personnel selection and repatriation, training and organization development, labor relations, communications, motivating human resources, and ethical social responsibility, Hsu (2011).

Jonathan and Doh (2012) wrote the textbook. During a typical class, chapters were covered with PowerPoint presentations, and question/answer followed. Real-life examples were given whenever applicable. Who is the richest woman CEO in the world? How does she make money? Who is the #1 company in NY? What is the China direct investment in USA 2003-2011? Why is the Japanese economy so bad? What is the strategy for Volkswagen to come back to the US market?

The most important deliverable is the Final Project. Students work individually or in a group to do research on global billionaires. They are the international managers and exceptionally successful in managing their global businesses.

Table 1 lists the topics for the final projects in the day class. Table 2 shows the group projects for the Accel evening class. Students submitted ten-page paper with 10+ PowerPoint slides. The paper grade was the same for the group, but PowerPoint grade was different for the individual in the same group. Students presented their final projects with question/answer followed. The student evaluations were good to excellent.

2. MG 366 Global E-Commerce course

Thirteen people registered in Spring Semester 2012. This course was modified to add much internet hardware and software content. The three CIS/MIS majors used this course as a computer elective.

Turban (2010) wrote the textbook. Ebay and Amazon served as examples of the American success stories for E-commerce. Much discussion focused on the business model of: Facebook, Expedia, Freshdirect, JetBlue, Google, Groupon, Hulu, Ingdirect, Linkedin, Netflix, Orbitz, Pandora, Priceline, Skype, Ticketmaster, Twitter, YouTube, Zappos, Zipcar, and Zynga. Chinese E-commerce firms that traded publicly in USA are: Alibaba, Bidu, Giant Interactive, Netease, Renren, Shanda Games, and Sina. Why are their stock prices going down since the IPO? Is Facebook a good business model? Why is it banned in China? Why is Apple making iPod, iPhone, and iPad in China? Why is it that Google bought Motorola? Are there successful E-

commerce in Brazil, Russia, and Eastern Europe? Can you start a global E-commerce today and make money? What is the reason that people will pay your product/service online? This type of question keeps the lecture alive and students are challenged to find answers.

In addition, this course covered 7 non-US countries, taking E-commerce to the global level. In the continental Europe, 40+ discount airlines are now operating to benefit travelers. There are 27 countries with 500 million people in the European Union. Each discount airline started with just one E-commerce website, and tried to be the next RyanAir or EasyJet. Final projects involved the comparison between a discount airline and a traditional airline, covering Czech Republic, Finland, Germany, Ireland, Sweden, and UK, Table 3.

(B) DeVry University*

DeVry University (DV) is a for-profit firm that has significant impact to the University Education community. DV has 93 locations offering online or onsite courses, throughout the United States. It trades in the stock market under the stock symbol DV. Its stock price was $28.89 as of 5/29/2012. DV has 93,000+ students in 26 states and Canada. DV also offered thousands of courses online. The total population is estimated as 130,000 students, if online students are included.

The Oracle based DV eLearning platform (eDV), is a powerful learning tool for both the instructor and the students. DV eDV helpdesk is available 24/7 and 365 days, with toll free telephone and online support. Registered MBA students signed in with the D numbers and passwords. They were able to preview course syllabus, chapters, assignments and references. Instructor's screen contained the same materials, but instructor could modify assignments, created the grade book, and received assignments online. Short quizzes using multiple choices and true/false questions were graded by eDV. This feature saved much time for the instructor. Discussion questions were posted on eDV. Students posted the threaded discussion a minimum of three different days per week for each graded question. Midterm exam or final exam could be done online if needed. Course Project requirement was posted on eDV. The important thing is to cover the terminal course objectives (TCO). eDV made an elaborate effort in continuously updating its TCO for each course.

1. CIS 339 Object Oriented Analysis and Design

This course was offered at DeVry Paramus campus with 10 students, July – August 2011. Dennis et al (2007) wrote the textbook. This course is a continuation of CIS 321 Structured Analysis Design. Students explore techniques, tools, and methods used in the object-oriented approach to developing applications. Students learn how to model and design system requirements using Unified Modeling Language (UML) tools such as use case, class, and sequence diagrams.

Ten chapters were covered in eight weeks. Students need to post online threaded discussion, a minimum of three different days per week. There is an online quiz and iLab work every week. Quiz is graded by the eDV. iLab needs to be submitted every week. In CIS 321 course, the software drawing tool used was Microsoft Visio. All students took CIS 321 course, so they are familiar with the use of MS Visio.

In CIS 339, IBM Rational Software Architect (RSA) was employed. To access RSA, students would log on the Citrix Server first. Then with the right password, RSA is accessible. This seems easy. But when students saved files, the files could not be retrieved. Some saved them in the Citrix Server. Others saved them on their own flash drives. The issues could not be solved until few weeks later. The video instruction in the course shell did not work. Help desk could not provide answers for this type of questions. This curriculum needs to be upgraded.

This author installed IBM RSA on his personal Dell laptop in the first week of class. It worked fine. Since Citrix Server caused much issue. It was recommended to all students, that they should do the same, to install IBM RSA directly, on their home PCs or laptops. Several students did the installation and were very happy with the results.

Final Exam is a project that involves five groups of two people each on: a) Dragon System, b) IBM DB2, c) Microsoft Sql Server, d) Oracle 10g, and e) Rosetta Stone System. Students need to provide one page layout for Class Responsibility Collaboration (CRC) card and two pages for visual diagrams using IBM RSA software. Then students prepared 12-15 PowerPoint slides. They presented their projects at the final class. The PowerPoint content is the same grade for the group, but the oral presentation grade is different. By doing the final projects, students learn the practical usage of IBM RSA. As a result, all ten people in this class did well.

2. CIS 336 Introduction to Database with Lab

This course was offered at DeVry Paramus campus for 5 students, October – December 2011. The class met two nights per week, three hours per night, for a total 48 hours. Textbook was written by Rob and Coronel (2007). This course introduced the concept and methods to database development and us, including data analysis, modeling and Structure Query Language (SQL). Students explored the basic functions and features of a database management system (DBMS), with an emphasis on the relational model. Nine chapters were covered in details. Students posted online threaded discussion, a minimum of three different days per week. There was an online quiz and iLab every week. Quiz was graded by the eDV.

For the weekly iLab assignment, students would use the Oracle SQL Plus, available on the Citrix Server. It worked very well. Example files were available in the Doc Sharing folder. To modify and execute the example file, using the Oracle SQL server, was not too difficult. But the iLab work was very tedious. This author would lecture about 1.5 hour each class. The rest of the class time was devoted for students to work on the iLab. It was a lot of "hands-on" work for students working alone.

After two weeks, five people were assigned as two groups, with two in one group and three in another group. Working with others, the weak students were able to catch up. This approach was a lot better than working alone. Final Exam was a project presentation with the requirement as below:

- Install the demo or trial version of the Server, on your home PC.
- If it is successful, then do the next steps.

- If not, contact company, industry experts, instructors.
- Create a table, insert data into this table.
- Employ three or more SQL statements for query.
- Show the results of the query.
- Document the whole process, by using 8+ PowerPoint slides.
- One of the slides is to use MS Visio for a process flowchart.

The projects completed were: a) IBM DB2 Server, b) Microsoft SQL Server, c) My SQL Server, d) Oracle 10g Server, and e) Sybase Server. Some of these projects took 20 more hours to complete.

Evaluations from students: 4 exceeded expectation, 1 met expectation. The mean is 3.80. Comments were:

- This course is full of information.
- You learn a lot from the class.
- Instructor is very helpful.

Conclusion

With the down economy, many students were interested in learning real-life international management, global e-commerce, system and database Management. These courses were taught at two firms to 64 people. Discussing the PowerPoint slides with real-world examples made the lectures interesting. Asking student questions keep them engaged in the classroom. Hands-on approach, in-class team exercises, homework assignments, role play, Harvard case studies, online Blackboard discussion, online DeVry e-platform, use of the IBM RSA software, MS Visio, Oracle Sql Plus, MS Sql Server, internet search, final oral presentation, gave the best chance of success. Student assessments were good to excellent.

*** **Full-time position**

* **Part-time consultant**

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Acknowledgment

Table 1	MG 355 International Management	Final Group	Project chart
Group A	*Topic*	*Group B*	*Topic*
Anderson	Georgina Rinehart	Filip	Bernard Arnault
Tuzzolino	Hancock Prospect Australia	Waters	LVMH, France
Group C	*Topic*	*Group D*	*Topic*
Diaz	Eike Batistia	Accardi	Michele Ferrero
Reyna	EBX Group, Brazil	Rodier	Ferrero Rocher, Italy
Group E	*Topic*	*Group F*	*Topic*
Avila	Amancio Ortega	Moore	Prince Alwaleed
Jean-	Zara, Spain	Sadowske	Kingdom

Bap			Saudi Arabia
Group G	*Topic*	*Group H*	*Topic*
Ginyard	Li Ka-Shing	Evans	Carlos Slim Helu
Johnson	Hutchison, Hong Kong	Santana	Telmex, Mexico
Group I	*Topic*	*Group J*	*Topic*
LaPorte	Stefan Persson	Smith	Alisher Usmanov
	H & M, Sweden	Whiteley	Metalloinvest, Russia

Table 2	MG 355-L International Management	Final	Project Chart
Name	*Topic*	*Name*	*Topic*
	Group A		*Group F*
McNarmara	Eike Batista	Shubert	Michele Ferrero
Clark	EBX, Brazil	Rodrique	Ferrero, Italy
	Group B		*Group G*
Colley	Amancio Ortega	O'Shea	Li Ka Shing
Rivera	Zara, Spain	Ferguson	Cheung Hong
	Group C		*Group H*
Rai	Lakshmi Mittal	Evdo	Carlos Slim Helu
Rosarian	Mittal Steel, Luxembourg		Telmex, Mexico
	Group D		*Group I*
Docu	Bernard Arnault	Chavez	Prince Alwaleed
Holohan	LVMH, France	Petrossi	Kingdom, Saudi Arabia
	Group E		
Brown	Stefan Persson		
Davis	H & M, Sweden		

Table 3	MG 366 Final Projects	European Airlines	Case Study
	Names	*Country*	*Project*
1	Bermudez	Germany	Lufthansa
	Patino		Air Berlin
2	Balkaran	Ireland	AerLingus
	McFarlane		Ryanair
3	Roldan	Sweden	ScandJet
	Ventura		SAS
4	Moulton	Czech	Czech Airline
	Steigert	Republic	Smart Wings
5	Medina	Finland	FinnAir
	Navarro		Blue 1
6	Castillo	UK	British Airway
	Marcano		BMI Baby
	Young		EasyJet