

## **Project Management: Failure to See Outside the Box in a Community Service Learning Project**

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*The rapid technological changes occurring within the global business environment, the number of failed projects, and the negative financial impact of a fail projects have businesses seeking to hire employees with developed project management skills. In an effort to better prepare business students for the workforce, a junior-level Project Management course was developed at Pennsylvania State University Hazleton Campus. The main component of this course was to provide the students with a team based community service project that emphasize soft skills, risk assessment and planning. This paper discusses the design of a team based service learning project as well as shares the significant student lessons learned and their failure to plan for a catastrophic event.*

**Field of Research:** Project Management

**JEL Codes:** F34, G21 and G24

### **1. Introduction**

The rapid technological changes occurring within the global business environment have forced businesses to place a greater importance on hiring employees with project management skills and techniques. It is estimated that the number of failed business projects is growing in number and currently stands at 37% (Atsu, Andoh-Baidoo, Osatuyi, & Amoako-Gyampah 2010; Krigsman 2011). It is also estimated that the cost of business project failures has an estimated annual cost of \$50 to \$75 billion dollars (Budde 2013). The number of failed business projects and their negative financial impact upon businesses further denotes the importance for businesses to retool, train and hire employees with good project management skills (Jian & Klien 2014).

Businesses are also looking to hire productive employees with good project management skills immediately upon college graduation (Sousa 2013). The need for project management education is important to businesses (Hall 2012; Malczyk ND; Peslak 2012).

However, there remains an educational challenge: linking the theoretical (academic) and practical (real world) knowledge together in a project management course to prepare students to be more competitive in the workforce by gaining the desired project management skill sets (Hall 2012; Sousa 2013).

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The Smeal College of Business at the Pennsylvania State University recognized the importance of project management and service learning as a necessary component required to support the needs of the business community. As a result, the course, Business Administration (BA) 421- Project Management, was developed and first offered in the Fall of 2006 for the Business Administration undergraduate bachelor degree program at the Pennsylvania State University, Hazleton Campus. It was required that all Students in the business program take the project management course as well as marketing and business information systems courses for graduation.

This paper discusses the design and methodology of a team based service learning project with the purpose of emphasis on communication and risk planning with the team and client for a project management course. This paper aims to promote a greater understanding of how team based community service learning can be incorporated into a project management course. More specifically, the papers explains (a) how team based community service learning is currently being integrated into a project management course with an emphasis on communication and risk planning, (b) how team based community service learning may better prepare students with real world project management skills, and (c) shares the significant student lessons learned as well as the students failures to plan for catastrophic events. This paper adds to the ongoing literature about project management curriculum development and team based community service learning (Sousa 2013). This paper also has practical implications for faculty teaching project management courses or faculty interested in incorporating a team based community service project into their course. The remainder of this paper is structured as follows: a brief literature review of project management course delivery and team based service learning pedagogy; the methodology used in the course development and integration of team based community service learning; findings and discussions; and conclusions and limitations.

## **2. Literature Review**

### **2.1 Project Management Course Development**

In general, project management courses have focused on the ability to think, assess, synthesize, and lead a project to completion. Students of all types of majors can benefit from taking a project management course (Sousa 2013). Typically, undergraduate business and technology students enroll in a project management course due to the number of required business and technology prerequisites courses (Grant 2010; Lee 1995; Sousa 2013). Since students in business and technology majors have strong backgrounds in marketing and system integration, the assignments in a project management course have historically focused on designing and creating digital media commercials which require a high level of knowledge and experience in marketing, integration, digital media and project management. This focus is also consistent with the majority of project management research which heavily emphasises the development of software, practices and techniques to support the management of projects (Jiang & Klien 2014; Stoshikj, Kryvinska & Strauss 2013).

### **2.2 Team Based Community Service Learning**

Businesses have indicated the importance of internship candidates and potential employees having teamwork skills and the ability to communicate systematically with other business professionals (Tan & Jones 2008; Graves 2013). In order to prepare students for a career in the business world, it is important for the students to experience and understand the real world risk and challenges that could occur within any project. Pedagogically, students learn

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more by using their own skills and imagination to complete rigorous, long-term projects (Lee, 2011; Sousa 2013). Moreover, Grant (2010) stated that in order to make the projects more stimulating and challenging to students, the project needs to require working with a real world client and meeting specific business requirements.

Sousa (2013) stated that students reach their highest level of success when they use the knowledge gained from higher education and can apply it into the real world. He suggested using Kolb's Experiential Learning Model (1984) as an approach to bridge the gap between the knowledge of real world managers and academic students through experience.

A more recent approach to Kolb's (1984) experiential learning model, is a team based service learning approach. Team based community service learning aims at engaging the students in an active learning experience via structured real world projects within a community setting with academic and industry perspectives (Bringle & Hatcher 1996; Bryer 2011; Bushouse & Morrison 2001; Jacoby 1996; Jelier & Clarke 1999; Kapucu 2011; Kapucu & Knox 2013; Lambright & Lu 2009; Ostrander 2004). With team based community service learning, students have the ability to further their understanding and apply course content (Bringle & Hatcher 1996; Kapucu & Knox 2013).

A recent research study conduct by Kapucu & Knox (2013) utilized service learning in emergency management programs in the United States. Their study found a positive link between the theoretical (academic) and practical (real world) knowledge within emergency management courses. Additional studies that used service learning pedagogy in teaching graduate public administration programs also had positive learning results (Bryer 2011; Campbell & Tatro 1998; Cunningham 1997; Jelier & Clark 1999; Kapucu & Knox 2013). However, it is important to note that there has not been a study where team based community service learning has been integrated into a project management course with an emphasis on communication and risk planning with the team and client.

The purpose of this study is to expand upon the literature by discussing the design and students' lessons learned from a project management course that incorporated a team based community service learning project emphasizing communication and risk planning.

### **3. The Methodology and Model**

#### **3.1 Course Description**

The three credit BA Project Management course catalogue description reads as the following:

**“BA 421 Project Management: Introduction to Project Management covering all phases of a project including proposal development, planning, execution, and closing”** (Pennsylvania State University 2015).

The objectives of the BA 421 course were to provide hands-on experience in project management using real-world projects with a client to simulate the real working environment within the structure of the course. The content emphasized communication, collaboration, risk and stakeholder management, documentation, scheduling, development, implementation, testing, change management, budgeting and closing skills. “The main benefit is that students feel proud of their projects and gain confidence in their practical abilities” (Lee 1995, pp. 321).

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The course required the faculty to contact local businesses and industries to furnish problems for the students to solve. The BA students were required to develop storyboards, scripts, videos and audio recordings, as well as a marketing plan for the commercial. This approach provided the students with a more realistic experience that promoted the concept of community service and competition rather than fictitious simulations of in-class projects.

In order to make the projects more stimulating and challenging to students, the projects required two additional constraints of working with a real world client and the requirement of meeting specific business requirements (Grant 2010). In order to develop the project management courses for the BA students within their major, the focus went beyond general introductory business courses, such as business marketing, public relations, business systems and finances.

The traditional method used in the classroom consisted of lectures, reading assignments, reports, and exams based on the textbook, Introduction to Project Management, written by K. Schwalbe (2010). The lectures included standard illustration, case studies and short video clips. The video clips were provided by students, which were found on YouTube.com and demonstrated key concepts found in the reading assignments. Students were then required to work with their real world clients to define the project scope, create workable timeline, and budget, and manage team members and work flow, while navigating through the key phases of the project lifecycle. The students were required to develop a project charter and project management plan that addressed scope, quality, schedule, cost, configuration, change, communication, human resources, procurement, and stakeholder risk management.

A real world community service project was implemented within the course to reinforce the use of business management concepts in practice and to assist the students in developing the soft skills, especially communication, risk, stakeholder identification and management, as well as organization skills. The project was started in the second week of the course and the project tasks were performed in conjunction with the content in class lectures.

### **3.2 Project Description**

In the BA 421 course students worked as a team to develop either a television or radio commercial and a marketing plan for a local non-profit/small business with the client actively engaged in defining the business needs and budget limitations. Once the parameters of the project had been defined, the teams competed against each in developing a marketing plan and commercial, using GarageBand and i-Movie software, to win the final contract from the client. At the end of the semester, the teams presented their marketing plan and commercial to the client in a formal presentation held within a 90 minute class period for formal acceptance and sign-off.

### **3.3 Development of the Team Based Project**

The BA 421 course contained 23 traditional undergraduate students from diverse, ethnic and socio-economic backgrounds. There were 10 male and 13 females. Among the females, there was one international student.

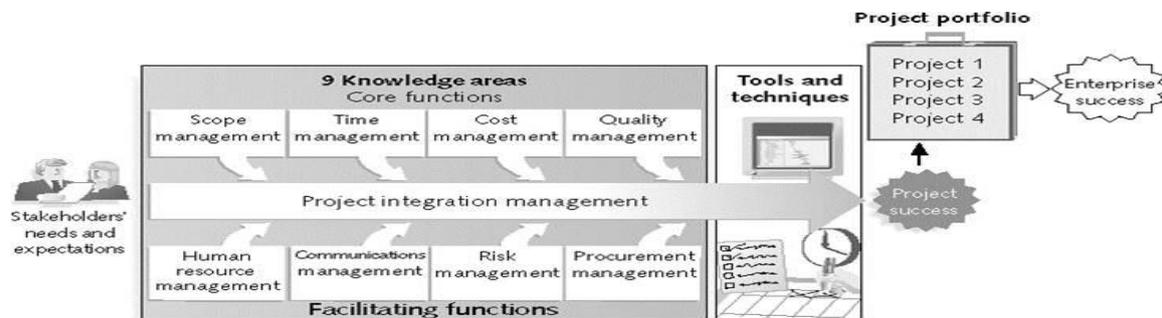
Students elected two group leaders that were to act as liaisons to the instructor. The group leaders reported any difficulties between the group members and/or client.

The course utilized the Project Management Body of Knowledge (PMBOK) model because the model demonstrates a non-linear development process to the students. The key

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structure of the model indicates that all documents need to be stored in a central repository to provide easy access to all team members – a key concept that general business students are not generally familiar with when working on a technology based project. The requirement of this centralized document repository emphasizes how important interactive communication and availability of documentation shared between all stakeholders is critical for the success of the project (Project Management Institute 2008).

**Figure 1: Integration Management: (Schwalbe, 2010)**



### 3.4 Activities

The group developed a charter that required approval by all group members, the instructor, and the client before development could begin. This document included the formal definition of the projects requirements, management practices, and reporting format.

Throughout the execution of the project, members communicated with each other on a regular basis via various means. Teams established private communication space in the course management system of ANGEL. In addition to these asynchronous means of communication, regular meetings were scheduled with the groups and their client. Results of each phase of project, development and testing had to be formally reported to their client to be signed-off by the client.

It is important to note that the BA 421 course stressed the active role of communication with the client. Throughout the course, students reviewed managerial, progress reports, risk management documentation and shared commercial test results with the client; and conducted scope verification with the client. The risk management and interaction with the client were critically paramount to the approval and successful closure of the project. If the client did not approve, the students were forced to return the current phase of the project and make necessary modifications to the deliverables that reflected the requirements as stipulated and reiterated by the client. Communication, risk and stakeholder management plans developed by the students were a critical and guiding force in the successful development of the final product.

### 3.5 Presentations

Each team member was required to give a brief oral presentation to group leaders on the status and risk of their portion of the project. The group leader and team members met with the clients every four weeks to report the progress of their project and to verify that milestones were achieved and approved.

### **3.6 Methodology: Assessment Tools Used**

Summative assessment techniques were utilized to assess the effectiveness of the project. Specifically, the course instructor, the lead author of this paper, collected individual lessons learned reports from students.

## **4. Findings/Discussion**

### **4.1 Results of the Students' Lesson Learned Reports**

Students were asked to use individual lesson learned reports to provide honest and constructive feedback regarding their team based community service experience. Upon careful evaluation of the students' qualitative lesson learned reports, the instructor concluded that the team based service learning project was successful. The students' lesson learned reports are summarized below.

Response rate: There was 100% of student participation (n=23) in completing and submitting the lesson learned reports to the course instructor.

Project effectiveness: Overall, the students believed that the team based community service learning project was effective and significantly impacted their student learning experience. Specifically, 86.9% of the students (n=23) reported that the team project experience helped them to have a better understanding of project management in practice and its importance in the successful project development.

Soft skills learned: Overall students consistently stated that communication between team members and the client was critical in the success of project. The students stated that the asynchronous communication management system, Angel, was ineffective in early attempts to coordinate the members with the time line and resolve production issues. The introduction of Google Hang-out provided a means of real-time communication with the transcript of the project held in the caption viewed as superior by the students. The students also stated that they viewed this communication system as a superior means of collaboration and documentation of communication, as well as a repository for version of the plans developed for the execution of the project.

Students further stated that they actively engaged in peer tutoring through the use of Google Hangout because it provided real time responses to the relevant documentation issues project managers were encountering when updating MS Project timelines. Students reported that they liked the ability to go online at pre-ordained times to discuss and review documentation. Students also liked that each member could provide input on the problem with a transcript being provided by the system. The students stated that their ability to jointly contribute to the editing of a document helped them to stay on schedule and recover from lost time caused by Hurricane Sandy.

Leadership skills learned: Many of the students wrote in their lesson learned reports that this was the first time that they had to take on the leadership role in a group project. Several students further stated that the managerial evaluation they had received by their peers, was surprising in their results. Many of the students also indicated that they were not aware they could function effectively as a group leader. While, other students found that the group leader performance evaluation was a confirmation that they were weak in leadership skills.

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Experience with client involvement: The accountability of student performance on delegated tasks has always been a problem with group projects. Students reported that the use of performance evaluations by group leader throughout the project was very helpful and sometimes a source of regret. Students did not realize how much skipping a class or choosing not to respond to an email or text impacted the timeline and the ability of the others to move forward. Students stated that previously they rarely thought about how their work ethic and task competency impacted other group members, but that the introduction of a client made them take note of their individual performance. A few of the students noted their actions changed as a result of evaluations provided throughout the project.

All students indicated their normal approach to development of the marketing plan and commercial was impacted by the introduction of a real world client. Students stated that dealing with individuals who had a real, imperative business had an effect on their approach and their focus on the project. Some students also indicated that the client often reigned in their creativity of what they could do in their marketing approach. The students also stated that the clients' limited budgetary resources had deterred students from fully exploiting marketing trends being utilized in industry.

All the students reported that communication, stakeholders' management, and risk management were key factors in the projects outcomes. The client's business requirements had a serious impact on creativity and development of a trendy marketing plan. This emphasis went from developing a market plan that utilized avant-garde approaches as in other course's projects within the curriculum, but had to focus on a more conservative approach to marketing. Some students referred to the clients business requirements as being 'diminishing' to possible approaches for a marketing campaign. Hence, the introduction of the client, as a constraint, was a reality check for the students in the evolution of their stakeholder management skills which emphasised communication and risk management.

Student recommendations: Approximately 50% of the students also made recommendations to the instructor to provide more examples of quality managerial reports, timelines and budgets.

All students stated that not enough emphasis was given to catastrophic risk management. It is important to note that during the Fall 2012 semester Hurricane Sandy impacted the east coast of United States. Hurricane Sandy caused disruption in communication services and education for many of all the students enrolled in the course. All of the students mention that the disruption had a long term impact on the project and teams. One group of students reported the loss of props, electronics devices, electronic files and physical documents as a result of the flooding waters of Hurricane Sandy. None of the teams planned for a catastrophic event.

### **4.2 Establishing a Community Service Learning Project**

Finding the ideal client is a key factor in designing a successful community service learning project. This requires an outreach to the business community through all available avenues, such as, the Rotary Club, Chamber of Commerce, regional incubators, or campus community. This process requires the outreach to occur at least 6 months prior to the beginning of the semester. This preliminary period of project design is necessary to vet the client's interest level, determine the needs of the client, and set the client's expectations.

The level of client's project management expertise will impact the amount of preliminary project development time that must be invested by the instructor. The instructor may have to educate the client on the client's participation requirements for their type of proposed project, the management process and project management documentation submitted to the client for evaluation. The client may require assistance in the development and construction of a Request for Proposal (RFP) document and the RFP process.

The RFP is basis of the entire project, because this document is the directive starting point for students to develop their project management plan. It was necessary for the instructor to work with the clients to assist in the creation of this document. Consultation had to occur between the faculty member and the client to ensure that all technical requirements of the project had been properly identified prior to the beginning of the semester.

## **5. Conclusion**

The increasing amount of failed business projects has increased the need for hiring employees with good project management skills (Jian & Klien 2014; Sousa 2013). As a result, higher education institutions are challenged to produce graduates with good project management skills (Hall 2012; Sousa 2013). This paper documented the development of a team based community service learning project and shared the results of self-reported student lesson learned reports. The results of self-reported results from the students' lesson learned reports suggest that team based community service projects are very effective in teaching the concepts of project management to students.

It is believed by the course instructor that BA 421 will continue to evolve and improve based upon based on exit interviews with students' and the clients. A major change will be to devote more class time to catastrophic risk management and meeting time to be set aside for meeting with the client. The team based community service project requirements will be changed based on the business needs of clients. As the course continues to evolve, the instructor will continue to incorporate current and timely project management methods as well as techniques to promote stakeholder management within the course.

This study is not without limitations. First, the Fall 2012 semester was the second time the instructor integrated a client within the project management portion of the team project in the BA 421. The class size was small and limited to one course at one university. The study also made no attempt to control for variables that may impact students' performance on team based community service learning activities. Additionally, students were not surveyed following the course, so it is uncertain if the students would have reported data differently than they did in their lessons learned reports.

Nevertheless, what made this paper innovative is twofold: the integration of a team based community service project as the focus for the entire course, and the focus on stakeholder management through the use of soft skills. This study expanded the literature by providing a

framework on how team based community service learning was incorporated into a project management course. Specifically, this paper explained (a) how team based community service learning was integrated into a project management course with an emphasis on communication and risk planning with the team and client, (b) how team based community service learning may have prepared students with real world project management skills, and (c) shared the students' significant lessons learned and the students' failure to plan for catastrophic events. Additional research should be conducted to better control variables for construct validity, increase the sample size, administer a student perception survey, and extend the research over a longer period of time.

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## **References**

- Atsu, M, Andoh-Baidoo, F, Osatuyi, B & Amoako-Gyampah, K 2010, 'An exploratory study of the contextual factors that influence success of ICT projects in developing nations: A case study of a telecommunications company in Ghana. *Journal of Information Technology Case and Application Research*, vol. 123, no. 1, pp.56-81.
- Bringle, RG & Hatcher, JA 1996, 'Implementing service learning in higher education', *Journal of Higher Education*, vol. 67, no. 2, pp. 221–239.
- Bryer, TA 2011, 'Linking students with community in collaborative governance: A report on a service-learning class', *Journal of Public Affairs Education*, vol. 17, no. 1, pp. 89-114.
- Budde, WT 2013, *Counting the costs of project failure*, PropertyCasualty360, viewed 30 August 2013, <<http://www.propertycasualty360.com/2013/04/10/counting-the-costs-of-project-failure>>
- Campbell, HE & Tatro, BJ 1998. 'Teaching program evaluation to public administration students in a single course: An experiential solution', *Journal of Public Affairs Education*, vol. 4, no. 2, pp 101–122.
- Cunningham, B 1997, 'Experiential learning in public administration education'. *Journal of Public Affairs Education*, vol. 3, no. 2, pp. 219–227.
- Grant, M 2010, 'Real world project: Integrating the classroom, external business partnerships and professional organizations', *Journal of Information Technology Education: Innovations in Practice*, vol, 9, no. 1, pp.167–182, viewed 10 February 2014, <<http://www.informingscience.org/Publications/1295?Source=%2FJournals%2FJITEIIP%2FArticles%3FVolume%3D0-0>>.
- Graves, JA 2013, *U.S. news & world report money careers: 7 key skills you need to get hired right now*, U.S.News & World Report, viewed 21 May 2013,<<http://money.usnews.com/money/careers/articles/2013/02/21/7-key-skills-you-need-to-get-hired-right-now>>
- Hall, NG, 2012. 'Project management: Recent developments and research opportunities', *Journal of Systems Science and Systems Engineering*, vol 21, no. 2, pp. 129-143.
- Jacoby, B 1996, 'Service-learning in today's higher education', In B Jacoby (ed.), *Service-learning in higher education: Concepts and Practices*, Jossey-Bass, San Francisco, pp. 3–25.
- Jelier, RW & Clarke, RJ 1999, 'The community as a laboratory of study: Getting out of the ivory tower', *Journal of Public Affairs Education*, vol. 5. No. 2, pp. 167-180.
- Jiang, J & Klien, G 2014, 'IT project management', *Journal of Management Information Systems*, vol. 31, no. 1, pp. 13–16.

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- Kapucu, N & Knox, CC 2013, 'Utilization of service learning in emergency management Programs in the United States', *Journal of Public Affairs Education*, vol. 19, no. 1 , pp. 31-51.
- Kapucu, N 2011, 'Developing competency-based emergency management degree programs in public affairs and administration', *Journal of Public Affairs Education*, vol. 17, no. 4, pp. 501–521.
- Kolb, DA 1984, '*Experiential learning: Experience as a source of learning and development*', Prentice-Hall, New Jersey.
- Krigsman, M 2011, *CIO analysis: Why 37 percent of projects fail*, ZD Net, viewed 13 June 2013, <<http://www.zdnet.com/blog/projectfailures/cio-analysis-why-37-percent-of-projects-fail/12565>>
- Lambright, KT & Lu, Y 2009, 'What impacts the learning in service learning? An examination of project structure and student characteristics', *Journal of Public Affairs Education*, vol. 15, no. 4, pp. 425-444.
- Lee, WL 2011, 'Spreadsheet based experiential learning environment for project management', *Proceedings of the Winter Simulation Conference*, Phoenix, Arizona, pp. 3877-3887.
- Lee, DM 1995, 'Critical skills and knowledge requirements of professionals: A joint academic/industry investigation', *MIS Quarterly*, vol. 19, no. 3, pp.313-340.
- Malczyk, A nd., *The importance of project management*, viewed 11 August 2013, <<http://www.bbrief.co.za/resources/articles/the-importance-of-project-management>>
- Meshing, C 2013, *InformationWeek global CIO*. InformationWeek, viewed 2 August 2013: <<http://www.informationweek.com/global-cio/interviews/why-tech-projects-fail-5-unspoken-reason/240152282>>
- Ostrander, SA 2004, 'Democracy, civic participation, and the university: A comparative study of civic engagement on five campuses', *Nonprofit and Voluntary Sector Quarterly*, vol. 33, no. 1, pp. 74-93.
- Pennsylvania State University 2015, *Course catalogue descriptions*, viewed 18 February 2015 <<http://bulletins.psu.edu/undergrad/courses/B/B%20A/421/201213FA>>
- Peslak, A 2012, 'Information tech, project management and project success'. *International Journal of Information Technology Project Management*, vol.3, no. 3, pp. 31-44.
- Project Management Institute 2008, *A guide to the project management body of knowledge (PMBOK® Guide)*, Project Management Institute, viewed 19 February 2015, <<http://www.pmi.org/PMBOK-Guide-and-Standards.aspx>>
- Schwalbe, K 2010, *Revised an introduction to project management*, (3rd ed.), Cengage Learning, Minnesota.
- Sousa, KJ 2013, 'Extending a corporate project environment in a project management course', *Decision Line*, vol. 44, no. 1, pp. 6-10.
- Stoshikj, M, Kryvinska, N & Strauss, C 2013, 'Project Management as a Service', *Proceedings of International Conference on Information Integration and Web-based Applications & Services*, Association for Computing Machinery, New York, New York, pp. 220-229.
- Tan, J & Jones, M 2008, A case study of classroom experience with client-based team projects, *Journal of Computing Sciences in Colleges*, vol. 23, no. 5, pp. 150-159.
- Tickles, V Yadong, L & Wilbur, WL 2013, 'Integrating cost engineering and project management in a junior engineering economics course and a senior capstone project design course', *College Student Journal*, vol. 47, no. 2, pp. 244-263.