Applying Project Management Strategies in a Large Curriculum Conversion Project in Higher Education

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Abstract

Higher education is undergoing great changes that require universities to adapt quickly, and making these changes can be difficult. One discipline that can aid in executing change is project management, which has developed a set of clear processes and strategies for completing initiatives quickly and effectively. Several authors have identified project management competencies as key in the practice of instructional design. However, in our experience it can be difficult to operationalize project management, particularly in instructional design projects that are large in scope and require a quick turnaround. In this case study, we describe our response to an immediate need to convert 53 courses from a 15-week to a 12-week format. We share the project management processes, strategies, and technologies we used to plan, organize, and lead this large course conversion project. We share our experiences working with organizational culture, collaborating with busy faculty, and hiring part-time designers and content experts. Finally, we share our own best practices for managing and leading large, multi-course instructional design projects.

Introduction

There has been a tremendous amount of discontinuous change in the U.S. system of higher education over the last several decades. The shifts have included ever-increasing scrutiny by accrediting and regulatory bodies, falling enrollments due to fewer high school students heading to college, and astounding price increases to the cost of tuition. For example, the cost of higher education tuition has increased by 1,225% over the last several decades, which is twice that of increases in medical care costs during the same period (Jamrisko & Kolet, 2014). Additionally, the National Student Clearing House (2017, June 16) reports that the number high school graduates attending college has fallen over the last five years by more than 2.5 million students. Higher education is in a time of great transition and institutions that do not become more agile risk abject and total failure. As Bryson (2011) noted, the survival of an organization is predicated on how well it responds to the shifting ecosystem. The problem of decreasing attendance is so dramatic for some institutions that Frey (2013) estimates that 50 percent of all private institutions of higher education within the United States will collapse by 2030 due to insolvency.

On top of all of this, institutions of higher education do not change easily. In fact, the long-held traditions of colleges and universities make needed change even more difficult. Zemsky (2013) suggests that although colleges and universities may experiment with new non-traditional models, they may not adopt sustainable change, so the same old education models are applied to new opportunities. New models and approaches, such as project management methodologies, are needed to help maintain quality while at the same time reduce expenses.

Project Management

One discipline that can aid in executing change is project management, which has developed a set of clear processes and strategies for completing initiatives quickly and effectively. It appears that change is more rapid and discontinuous in nature today than at any other time in history. These types of abrupt changes require strategic and agile responses, and project management is one method of approaching change that can speed sustainable change and encourage positive organizational behavior interventions. Project management includes a set of clear principles and strategies for completing projects on schedule, per scope, and within a predetermined budget (Project Management Institute, 2013). A project is as a unique activity that has a predetermined start and end date. The overall practice of project management involves the creation of a project plan that breaks down the defined project into the related tasks to accomplish the goals of the project, sequencing the tasks, assigning resources, and working to adjust task start and finish dates to align with resource availability. This upfront planning process allows for the creation of a project schedule, a project budget, and a project team consisting of the required human resources to complete the project. Project management is successfully applied in a variety of fields and contexts (Project Management Institute, 2013).

Project Management in Instructional Design

Project management is key in the practice of instructional design (Greer, 1992; Koszalka, Russ-Eft, & Reiser, 2012), a field which is inherently project-based. The International Board of Standards for Training, Performance, and Instruction (IBSTPI) identified planning and managing instructional design projects as a key competency for instructional designers, (Koszalka, Russ-Eft, & Reiser, 2012), and many authors have promoted the notion that programs preparing instructional designers for their work should include instruction on effective project management (Merrill, 2007; Williams Van Rooij, 2010). At our University, we have employed project management strategies in a variety of instructional design projects, including course design for University programs and curricula, corporate clients, government clients, and other institutions of higher education.

Responding to Change at Franklin University

Franklin University has a long history of adapting to changes in industry and the higher education ecosystem. Our University was an early developer of fully online programs in the late 1990s and has successfully provided online education for nearly 20 years. In the early stages of our online development, Our University was granted permission from the U. S. Department of Education (ED) to have an overlapping winter and summer trimester to support the development of online programs and employ a 15-week summer term. However, during the 2016-2017 academic year, the ED communicated that it would no longer support the overlapping of terms. This meant that the summer term would be shortened to 12 weeks in length. Because this direction was given just 7 months before the next summer trimester, it created a serious potential problem for many of our students who would need to take key 15-week courses during that summer to graduate from our University in a timely manner. Our university had more than 85 15-week courses, all of which were online and several with face-to-face versions. This included major area courses in many high-enrollment programs such as accounting.

To respond quickly to the requirements of the ED, we created a project team to plan for and execute a new strategy: converting all 15-week courses to 12-week courses. Furthermore, University leadership mandated that the required 15-week courses for Summer 2017 be redesigned immediately. That meant that our institution would need to convert 53 of the 85 courses from 15 to 12 weeks between January 2017 and April 2017.
In this case study, we describe how we responded to an immediate need to convert 53 courses from a 15-week to a 12-week format. We share Our University's model for delivering online education using adjunct faculty. We then discuss the project management processes and strategies we used to plan, organize, and lead this large course conversion project. We share our experiences working with organizational culture, collaborating with busy faculty, and hiring part-time designers and content experts. We also share the technologies we used to effectively manage this large course conversion project. Finally, we share our own best practices for managing and leading large instructional design projects.

Method

Instructional Design and Centralized Curriculum at Our University

In this section, we provide an overview of our course design and delivery approach at our University. Adjunct faculty, who are actively employed experts in the field related to the courses, teach the majority of our courses. This aids us in achieving our goal to provide instructors and courses that are relevant and current to the needs of employers. To aid in controlling and assuring the quality of each course, we employ a centralized curriculum in which each course is developed and deployed within our Learning Management System (LMS) BlueQuill, and each section of the course contains the same structure, assignments, rubrics, and point allotment. Per our design

process, teams comprised of an instructional designer, faculty member, content editor, and sometimes external content expert create each course. This team and process has become an integral component of curriculum development, revision, and improvement.

This design approach creates a sense of "our course" among the team and ultimately provides a more robust experience for the student. It allows the faculty member and content expert to focus on the content, or discipline, while the instructional designer focuses on the best way to distribute the information throughout the course, and the content editor conducts a series of checks to ensure that the course is ready for publication. A management team employs project management strategies to oversee, support, and lead the design project.

Project Management Applied to Instructional Design

As noted above, several authors have written about the relationship between instructional design and project management (Greer, 1992; Koszalka, et al., 2012 Merrill, 2007; Williams Van Rooij, 2010). Williams Van Rooij (2010) found that project management is a critical contributor to the success of instructional design, and the generic ADDIE process for designing instruction does not fully encompass critical project management components (Williams Van Rooij, 2010). We have found this to be true in our instructional design work, and below we describe how we integrated both the ADDIE process within an overarching project management process to execute this course conversion project.

According to the Project Management Body of Knowledge (PMBOK), there are five process groups or phases of project management, which we highlight here and describe in greater detail below: initiating, planning, executing, monitoring and controlling, and closing (Project Management Institute, 2013). These groups generally occur sequentially, though *executing* and *monitoring and controlling* occur simultaneously. For this project, the five phases were led and managed by the management team, which included the vice president of implementation, the executive director of design services, the department chair of instructional design, and the director of implementation, who acted as project manager. The instructional designer who led the design teams performed the executing phase. The executing phase encompassed the five phases of the ADDIE model: analyzing, designing, developing, implementing, and evaluating, which were the responsibility of the instructional designer (see Figure 1). In this manner, we integrated project management principles and instructional design processes.
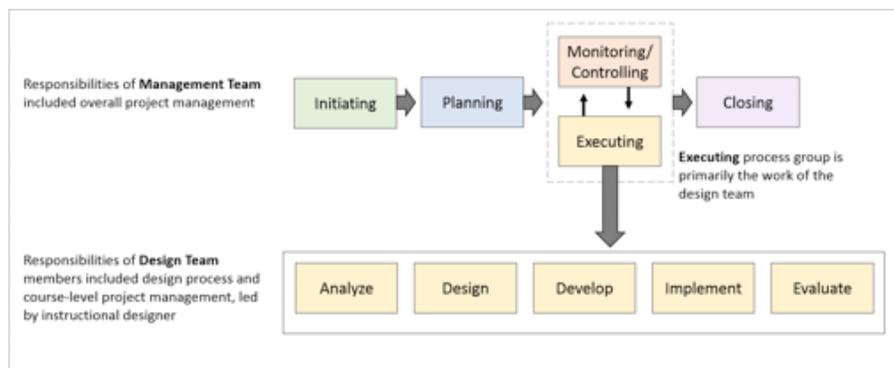

Figure 1. The relationship between general phases of instructional design and the project management process groups at our University. The ADDIE phases helped guide each individual course design project, and the project management process groups guided the overall course conversion of the identified courses.

Process Groups.
Our implementation of the course conversion process paralleled the project management process groups defined by the PMBOK. In this section, we define the five PMBOK process groups (Project Management Institute, 2013) and describe how we implemented them in this course conversion project.

Initiating.
The initiating process group consists of those processes performed to define a new project or a new phase of an existing project by obtaining authorization to start the project or phase (PMBOK 2013). In this phase, typical activities include identifying who will be affected by the project and ensuring that all stakeholders are aware of the project scope and agree to its implementation. As we began to grapple with this project, we first met with multiple stakeholders to help clarify the needs and constraints for the project. We held several meetings to present the current situation, listen to stakeholders' concerns and ideas, gather feedback on the proposed plan, and determine

the goals and outcomes for the project.

Planning.

The planning process group consists of those processes performed to establish the total scope of the effort, define objectives, and develop a course of action (Project Management Institute, 2013). In our experience, planning is the most important part of the work for the project manager, and inadequate planning is very often the cause of a project's failure. For this project, this planning included identifying the courses that were to be converted. This included prioritizing those courses running in the coming summer trimester that had a high enrollment and potentially impacted students' ability to complete their degrees in a timely manner. This planning also included defining team members' roles, identifying the project's scope, and developing a communication plan.

A key part of our planning for this project was clarifying the role of each of the design team members. These team members included an instructional designer, a content editor, a lead faculty member, and in some cases, a subject matter expert hired to provide content expertise for the course. We defined each team member's role, including when and how they would contribute to the process. Along with this planning, we identified a clear deadline for when key parts of the design process were to be completed. We also identified a deadline by which all courses needed to be completed.

An important part of the planning process is identifying the scope of the project. This includes clarifying the project goals, what to deliver, the criteria for success, and the cost of resources spent. We compared our capacity as an organization with the specific needs of the project and prioritized which courses to focus on for the summer start date. To help control the scope of each individual course and keep the project to a manageable size, we clarified that the goal was to convert the courses to a different format, not necessarily to fully redesign the courses. Our goal was to finish all conversions, despite the potential to further improve some of the courses. We estimated that it would take around 60 hours to convert a single course and directed our designers to spend about this much time on each course.

Finally, we also created a communication plan that considered all of the key stakeholders for the project. These stakeholders included students, faculty, designers, adjuncts, and the registrar's office. A key aspect of this communication included our initial kickoff meeting with all stakeholders in which we described the purpose of the project, the timeline, and the process to complete the project and further built stakeholder buy-in. We discuss more elements of our communication plan under the Monitoring and Controlling section later on.

Executing.

The executing process group consists of those process groups performed to complete the work defined in the project plan to satisfy the project specifications (PMBOK, 2013). As noted above, the executing phase is where all of the course conversion work took place. In this phase, the instructional designers employed the instructional design process with the faculty and content experts. In some cases, edits and changes to these courses took place within a Microsoft Word course manuscript design document, which captured all of the content and assignments for the course. In other cases, these edits and changes were identified on a marked up PDF copies of the courses to be changed. To employ project management for these courses, we created major milestones for the courses' development so that we could track the designers' progress in developing the courses. The instructional designers attended biweekly meetings to provide updates on their progress meeting these milestones. Instructional designers also tracked their time spent on each course project so that we could effectively monitor how long each course took to complete and make adjustments as needed.

In addition to the work accomplished by the instructional designers, our content editing team played a key role in the execution of this project. Content editors reviewed the completed course manuscripts and put them into the LMS. They also conducted quality checks on each course to ensure that all of the course components and functionalities such as discussions, synchronous sessions, point allocations, and rubrics met the course quality standards we had previously created. Ultimately, content editors reviewed the courses for accuracy, consistency, and accessibility. Again, these activities were reported biweekly and each content editor tracked time spent for each task daily.

A key component of these course conversions was the collaboration with adjunct faculty who served as content experts. Because our full-time faculty were required to convert many of these courses rapidly, we needed to hire additional experts to support the design process. Typically, these content experts were adjuncts that teach the specific course that they supported and have the familiarity with the content and course flow. Using this model, we were able to develop multiple courses simultaneously without overwhelming one particular lead faculty member. For example, one faculty member had to convert 13 courses, which would be impossible given the complexity of the work and the other responsibilities that the faculty member had to maintain during the same period. We

anticipated and, therefore, budgeted for 21 courses, but ultimately had 34 courses supported by a content expert.

Monitoring and Controlling

Communication. One key method for monitoring and controlling is communication. As noted above, we created a plan for communicating the project and its status to all stakeholders. Specifically, we held planning meetings with all stakeholders to gather their insights and develop an understanding of the project needs. We held a kick off meeting with all involved and communicated the project purpose, scope, and plan. As noted above, we held biweekly meetings with the instructional designers to communicate any updates and to facilitate peer-sharing and collaborative problem solving. We also checked in with faculty regularly through emails or phone calls, particularly when issues needed to be resolved. We also met monthly with the academic deans to discuss any concerns, and to answer questions. At the end of the project, we conducted lessons learned meetings to gather insights from team members on what went well and on how we could improve on the work with future course conversions.

Tracking and Reporting.
Another method for monitoring and controlling is tracking and reporting. We held biweekly status meetings to monitor the work of our instructional designers and content editors. In these meetings, the project manager followed up with each team member on the status of each course, including which milestones were completed. This meeting served to hold team members accountable for their assigned work and gave us the opportunity to identify issues and problems early so that we could respond to them quickly and keep the course designs moving forward.

We also tracked employee work using the time tracking software Replicon. Instructional design faculty and content editors entered the time spent on each project into this tool, which allowed us to create reports on the time spent for each assigned course conversion so that we could plan for future course conversions.

Quality Reviews.
In addition to the tracking described above, we also instituted quality reviews to monitor and assure the quality of the courses implemented into the LMS. These quality reviews included review of the faculty member, the instructional designer, and a comprehensive peer review of the final course by two content editors. Components of the review included: a review of the overall flow of the course; a check of course functionality such as links, assignments dates and discussion functions; a review of all images for appropriate use of alternative text; a review of course syllabi to ensure inclusion of required policies and other components; and standard review of the updated course materials.

Closing.
As noted above, the closing phase of a project is when the project officially ends. To close out this course conversion project, we held two lessons learned sessions – one with our instructional design/content editing experts, and one including all faculty and college leadership - to identify opportunities for improvement for future projects. Opportunities we identified included setting clearer deadlines, building in time for course review, and staggering due dates for a more balanced flow of work. We then communicated the successful completion of the project to all project stakeholders, including a final report of the project's success. We documented the changes made to each course and any additional notes for each course conversion in our records in SharePoint. Finally, we held a luncheon with key project stakeholders to celebrate the successful completion of the project.

PMBOK Knowledge Base.
In addition to the five process groups noted above, PMBOK has 10 knowledge areas, which we describe briefly in column 1 of Table 1 below. These knowledge areas can be emphasized or deemphasized depending on the industry, the project and products, and the project context. In our instructional design projects, we tend to focus on seven of the knowledge areas, while paying less concern to three of the knowledge areas. Specifically, we do not typically focus on project integration management because our processes are well established, and there is little need to manage their integration. Project risk management was not a focus, because there was little choice in this project – we were required to complete the changes - though the project did have some inherent risks. Finally, project procurement management was not emphasized because the majority of our resources for the project were internal, aside from identifying and compensating content experts. Table 1 below briefly describes the 10 PMBOK knowledge areas and summarizes how we applied these areas in this course conversion project.

Table 1. The 10 PMBOK Knowledge areas and how we applied them in this project.

PMBOK Knowledge Area	Our Application
Project Integration Management – Managing the holistic processes and components related to a project	• Coordinated the design and management processes of the course conversion project
Project Scope Management –Defining what the project includes and does not include.	• Met with project stakeholders to identify courses we needed to convert • Worked with design faculty to determine the level of design for each course (in this case, a conversion in length)
Project Time Management – Managing the time spent on the project and ensuring timely completion.	• Developed an estimate of time needed to convert each course • Estimated the overall project time needed • Defined the deadline for completion of courses, as well as milestones for key tasks
Project Cost Management – planning and tracking the budget to control the cost of the project.	• Identified external support needs based on project and the existing internal resources • Contracted with part-time employees to fulfill those needs in excess of our capacity • Gave all employees parameters for how much time to spend on each course conversion
Project Quality Management – defining and measuring the quality of the products to meet the project quality standards and scope.	• Created course production standards for each course • Conducted quality assurance reviews of each course using production standards
Project Human Resource Management – Organizing, managing, and leading the team to deliver the project in scope.	• Held kickoff meetings to communicate expectations • Consistent periodic meetings to track progress, address issues, and provide support • Frequent email communication with individuals and stakeholder groups to keep the project on track
Project Communication Management – Planning and executing the communication of the project and project-related information to all stakeholders.	• Held kickoff meeting to communicate the project parameters and plans • Communicated the status of the project to University leadership every two weeks • Email communication to solve problems and share status to staff, faculty, and faculty leadership • Biweekly meetings with instructional designers to communicate status, problem solve as a group, and provide support

Project Risk Management – Identifying anything that could be an obstacle to the success of the project.	• Identified risks, including potential impact on students, potential lack of faculty commitment, inability to secure needed content expertise
Project Procurement Management – Managing the acquisition of resources needed to complete the project.	• Identified content experts and coordinated their compensation
Project Stakeholder Management – Identifying stakeholders and understanding their role within the project.	• Met with multiple groups of stakeholders multiple times to establish the project, build support, communicate status, and address issues • Held lessons learned meetings to gather insights and signal closure of the project • Communicated completion at close of project to leadership

Technology for Facilitating Project Management

As alluded to above, we used several technologies for this project. In this section, we describe these technologies and share how we used them in the management and execution of this course conversion project:

1. *Microsoft SharePoint* is a document management and storage system that the University has employed. *Microsoft OneNote* collects notes or data about a particular topic that fosters collaboration while interfacing with all Microsoft Office products. We created a specific project page within SharePoint to house all documents for this project and used it as a central location for storing course manuscripts, documenting what actions we took, and noting any changes that we might need to make in the future.
2. *Replicon* is a web-based software that can be used to track projects, hours on tasks, the work of team members, and reporting on that tracking. We used Replicon to track the number of hours worked on each course within the project, which helped us to validate the estimates that we established for the work that the team would complete. In addition, Replicon helped us assign future work to the team by reporting the completion time for each course.
3. *Microsoft Excel* is a software that creates spreadsheets. We used Excel to track the status of each project and to create reports with the project status. This allowed us to quickly report our progress to all levels of stakeholders. Note that these reports were effective because the project manager was responsible for updating the spreadsheets daily if not multiple times per day.
4. In many cases, we also used a *course manuscript*, which is a template built within Microsoft Word that provides consistency among all courses. Essentially, the template provides a structure for all instructional designers, which allows them to focus on the creative elements of the course design. Additionally, the content editors can work more efficiently with the manuscript because they know which elements go where in the LMS. By implementing the manuscript, the content editors were able to significantly decrease their build time, which decreases the overall budget for the project.
5. *BlueQuill* is the Learning Management System that we employed for this project. We implemented and taught all courses within BlueQuill. The LMS is built internally by our University and is available commercially.

Results

This course conversion project was successful. We completed 53 course conversions on time. To be specific, when we began the project, we estimated that it would take instructional designers an average of 60 hours to convert each course. Based on our tracking, our instructional designers averaged 48.9 hours per course. The PMBOK acceptable standards for estimation are to conclude at -10% or +20% (PMBOK, 2013), and we were roughly 8% under on hours, which is within that standard. In addition, our content editors averaged six hours per course.

Our observation was that using these project management principles encouraged positive interactions with the faculty and content experts. In addition, we were in the middle of a merge of two groups of instructional design and management team members. Looking back, we needed a project of this scope and urgency to bring the team

together, and it helped to build a sense of unity and commitment among design team members, many of whom had not previously had an opportunity to collaborate with one another on projects. This project provided purposeful opportunities for the teams to create what Haslam, Reicher, and Platow (2011), refers a *social identity* as the team self-stereotyped leading to the creation of combined team values, norms, and beliefs surrounding the project. This is a far superior approach to providing long-term team cohesion. This is what Haslam, et al. (2011) define as *we* leadership.

This successful project also helped to build relationships with college faculty members. As in many universities, some groups of faculty members were uncertain about the effectiveness or usefulness of instructional design support for their courses. Because of the university-wide impact of this project, we worked closely with several of these faculty members, and informal feedback was very positive. In addition, based on the successful execution of this and other projects, we believe that other leaders and managers within the University trust and rely on our expertise more fully.

Recommendations and Reflections

Recommendations

We recommend the following to leaders and managers of instructional designers. First, we recommend meeting with all stakeholders early and often. This includes faculty, faculty leadership, instructional design management and team members, and any other key stakeholder. Your goal should be to collaboratively clarify the needs of the project, establish support from all stakeholders, identify obstacles and potential strategies before the project begins, communicate the status of the project regularly, gather feedback, and report on the conclusion of the project.

We also recommend communicating early and often. We accomplished this through regular meetings with the instructional designers, stakeholders, and college leadership. These meeting help to the project manager stay transparent with all stakeholders throughout the process. In addition, hold lessons learned sessions at the end of each project so you can learn from and apply those lessons in the future.

We also recommend holding biweekly status meetings in which the team members report on their progress. Our project manager typically leads this meeting, though the director or manager could manage it. We have found that these meetings promote collaboration and peer problem solving and help to identify common issues that can be addressed by the team. In addition, the meeting creates a sense of urgency and a need for team members to show progress since the last meeting. Meeting every two weeks works well because as the research indicates, activities to create a single deliverable should be no more than 80 hours (Project Management Institute, 2013).

We also recommend harnessing technology to facilitate instructional design projects. Technologies can help you organize, track, store, and monitor the work and the instructional products of the instructional designers. When used appropriately, they also allow for sophisticated reporting on the number of hours worked and the progress made.

Wherever possible, we also recommend employing a full-time project manager to manage and monitor instructional design projects. In our experience, project managers who employ key PMBOK principles can provide a significant increase in the productivity and results of an instructional design project. Where this is not possible, we encourage directors and managers of instructional designers to employ these key project management strategies.

To decrease the amount of time needed to bring a substantial number of courses to fruition, we recommend considering external subject matter experts that teach the subjects to assist in the instructional design process. We also recommend employing part-time, contact instructional designers and content editors to increase capacity when needed. Documenting processes and developing clarity on standards makes this possible, and without that kind of clarity this would not work as effectively.

Reflections

It is worth reflecting on the centralized course design strategy taken by our University. In our context, a centralized instructional design model and standardized curricula in which instructional designers, not faculty, design and develop courses seem to have facilitated our ability to respond quickly as an organization and to convert these courses quickly. We completed all course conversions in a short 12-week period. However, this centralized, standardized model may not necessarily make sense in all higher education contexts.

This paper illustrates how we have combined the disciplines of project management and instructional design, specifically combining the ADDIE process with the PMBOK principles. As noted above, in this approach, a project manager is responsible for the overarching project management, and the instructional designer manages the specific timeline for all course design elements. This works well for us, but it may not work for other universities that have different contexts and constraints. Still, we believe that using these PMBOK principles is a critical component of effectively managing instructional design projects, as well as any other major response to the higher education environment today.

It is worth reflecting on the flexible nature of project management and instructional design principles. Because of the pragmatic nature of the practice of the fields of project management and instructional design, we have found it useful to use the principles and processes such as those found in PMBOK and in processes such as the ADDIE process because they can be applied in myriad ways. We might emphasize, for example, project communication management in this project, but give it less emphasis in a project that has fewer stakeholders. In another example, we might conduct an analysis differently for a course conversion than we might for a new course designed for a new program. These are principles to apply in a pragmatic manner based on the context in which the work is taking place.

We have found that this flexibility has enabled us to respond quickly to the demands placed on our design team and our University. Project management tools and clean design processes have helped to facilitate our response to the demands of accrediting and governmental bodies quickly. These principles can also be applied in a variety of ways to help facilitate other kinds of change.

Conclusion

In this paper, we describe how we employed project management principles to succeed in a large course conversion project. This project was a response to a specific direction from the Department of Education to shift how we schedule our courses at our University. Higher education will continue to experience this kind of pressure and change, among many other kinds. We will need to respond to those changes quickly and effectively, and in our experience, project management is a key tool for managing and directing those responses.

References

Bryson, J. M. (2011). *Strategic planning for public and nonprofit organizations: A guide to strengthening and sustaining organizational achievement*. San Francisco: John Wiley & Sons.

Frey, T. (2013, July 5). By 2030 over 50% of Colleges will Collapse. Retrieved May 19, 2016, from http://www.futuristspeaker.com/business-trends/by-2030-over-50-of-colleges-willcollapse/

Haslam, S. A., Reicher, S. D, & Platow, M. J. (2011). The new psychology of leadership:Identity, influence, and power. New York, NY, Psychology Press.

Jamrisko, M., & Kolet, I. (2014, August 18). College Tuition Costs Soar: Chart of the Day. Retrieved November 16, 2016, from http://www.bloomberg.com/news/articles/201408-18/college-tuition-costs-soar-chart-of-the-day

Koszalka, T. A., Russ-Eft, D. F., & Reiser, R. (2013). *Instructional designer competencies: The standards*. Retrieved August 15, 2017 from http://ibstpi.org/instructional-design-competencies/.

Merrill, M. D. (2007). The future of instructional design: the proper study of instructional design. In R. A. Reiser & J. V. Dempsey (Eds.), *Trends and Issues in Instructional Design and Technology* (Second ed., pp. 336-341). Upper Saddle River, NJ: Pearson Education, Inc.

National Student Clearing House. (2017). Current term enrollment estimates – spring 2017. Retrieved July 24, 2017, from https://nscresearchcenter.org/currenttermenrollmentestimate-spring2017/.

Project Management Institute. (2013). *A guide to the project management body of knowledge (PMBOK guide)*. Newtown Square, Pa: Project Management Institute.

Williams Van Rooij, S. W. (2010). Project management in instructional design: ADDIE is not enough. *British Journal of Educational Technology*, 41(5), 852-864.

Zemsky, R. (2013). *Checklist for change: Making American higher education a sustainable enterprise*. New Brunswick, New Jersey: Rutgers University Press.