Do academics at your institution cringe when they hear "project management", "timelines" or "deadlines"? As a project manager, do you struggle with balancing your project management principles and practices with the university’s academic course development and design philosophies? These are typical challenges and you are not alone! Through the blending of collective efforts, both business and academic goals can be respected, realized and transformed into a new, agile, scalable model by leveraging Web 2.0 project management and collaboration tools to support a collaborative course development process package that even the most reluctant and skeptical academic and project manager can work with.

Background

Theory became practice when American Public University’s (APUS), a 100% online university, was tasked with facilitating the development, design and deployment of 47 new graduate level master classrooms in 2008. The Instructional Development and Design (IDD) team, part of the Academic Services Department, worked closely with the Academics Department by recognizing the contributions of both departments and blending their models together in order to achieve their desired outcome.

Prior to this project, this type of process, including the level of facilitation, interaction and implementation of a support system was not in use at the University and both departments were determined to pilot this new process successfully. The APUS IDD team had been formed six months prior to this project and had three full-time employees. The Instructional Design Coordinator’s role was to manage and lead the project and all persons involved with the development, design and integration of the courses. The Instructional Designer worked not only on the development on some of the courseware, but facilitated communication between the contracted Instructional Designers and the Course Developers. Finally, the Web Integrator integrated the courses, and all of the learning objects associated with the course, into the learning management system. The school had a Dean, Administrative Assistant and some faculty members. So, it was clear that APUS would need to contract not only with their faculty, but with subject matter experts, instructional designers, and other outside consultants in order to develop these courses in the desired timeframe.

We applied project management principles and tools to direct the process, track and report the project its team members, monitor the budget, and resolve issues. Next, we implemented an Online Learning Model, the Community of Inquiry (CoI) framework (Garrison, Anderson & Archer, 2000, 87), through which this courseware was to be developed and designed. Then, we created a course design template which not only facilitated the application of the CoI, but assisted the integration team with the conversion and integration of the content and learning objects into our learning management system. Next, we identified, evaluated then hired nearly 60 subject matter experts, instructional designers, and content approvers. Regardless of their prior development status, the School desired that the content and materials be developed by and for the University as well as align with all required educational and national standards and program requirements. Content and materials, once developed, had to be efficiently and effectively integrated into
our learning management system by IDD staff with integration proficiency, but without a background in the subject area or instructional design. To balance these seemingly competing requirements and achieve the desired results, the IDD team created a Course Design Template. Finally, we felt it important to use tools that would facilitate collaboration, establish community, and encourage communication among the team members to support their process. The Instructional Design Coordinator and members of the Academics department performed a resource and staffing assessment to determine staffing needs for this project. It was immediately clear our current staffing was not sufficient to fulfill the needs of the project. Our solution was to seek, contract, and train outside consultants: course developers, content approvers, instructional designers, and a quality assure/editor. The selection of course developer and content approvers was performed by the School who would assess their subject matter expertise. This was followed by an IDD team review in which their ability to implement best online practices was assessed. Instructional Designers were assessed to determine their experience in the area of online learning, their ability to communicate best online learning practices and their understanding of the CoI. Finally, an editor with learning management specific experience was hired to assist in the testing and evaluation of the courses before they were delivered to the School. As a result of this, we created a pool of consultants whose abilities and style complimented our process as well as their adherence to our project expectations and deadlines.

Process Development and Planning

The APUS Instructional Design and Development Process model is based on various instructional design and instructional systems design models as well as course creation processes. Having familiarity and experience with the ADDIE (Analyze, Develop, Design, Implement, Evaluate) Instructional Systems Design Model I realized that this would not fulfill our project’s design needs, so I researched other Instructional Design models. I reviewed Dick & Carey’s Systematic Design of Instruction (Dick & Carey, 1978) and Reigeluth’s Elaboration Theory (Reigeluth & Stein, 1983). While I found elements that would be helpful, these still addressed the instructional design of a course linearly, and I desired a process that would better fulfill our need for a collaborative and iterative process. Not only did I need a model that took into account an additional step between Analysis and Design in the ADDIE Model, but I wanted to be able to have a collaborative development feedback loop during the development and design phases and felt that I needed to change the “Implement” step to “Integrate”. Further investigations lead me to McGriff’s Doctoral Dissertation (2000), “Project Management for Instructional Design in Higher Education” and combined with Pickett, Shea & Fredericksen’s (2001) “SLN Course Design Process”, provided me with a frame of reference for creating and managing a course development and design process. Ultimately, I took pieces from the various models and created the APUS Instructional Development & Design Process Model.

Project management tools were a necessity to effectively guide a project of this size and scope, track and report the project’s progress, monitor the budget, and perform risk assessment and resolve issues. Because of this project’s importance, we leveraged project management principles heavily in our planning stage to determine the needs, requirements, scope and budget. We were then able to prepare, the first of many, timelines and an overall project plan. This enabled us to gather our team members. During the planning stages, perceptions and differences in language were the early obstacles; however our project benefitted from our pre-planning which established a flexible workflow process that allowed for the rapid and simultaneous development of courseware. One individual coordinated the project to ensure project coordination and information consistency.

Our goal was to keep things simple for all team members, while still providing a project framework that ensured the success of the team members and the project. Many team members expressed they were not
familiar with this type of course development process so we presented the project to the team in a collaborative course development process package during our weekly project team meeting calls. During the team meeting calls we further reinforced to the team members their roles and responsibilities; relationships to other team members; project process expectations and support; resource availability; and course development and design tools and supports. The team meetings were held throughout the entire development cycle and individual sessions were held as needed or required to keep the project expectations on track. During the team meeting calls, requests for feedback were expected and encouraged in order to make needed adjustments to the process, deadlines, needs, etc. Team members remarked how they appreciated being able to provide feedback to the new process as they felt that they were contributing to future iterations of the process.

**Development and Design Framework**

At American Public University (APUS), the Instructional Development and Design team created a model to facilitate the course development and design process, develop an effective and meaningful student learning experience and ensure course rigor. We merged the school’s academic curriculum development philosophies, standards and requirements with instructional design project management best practices for course development. Additionally, we adopted one of the most recognized online learning frameworks, the Community of Inquiry Framework (CoI) which is utilized by various institutions of higher education, educational leaders, and other organizations, provides explanation for best practices in online learning (Garrison, et al., 2000). All APUS Course Developers and Instructional Designers are encouraged to review the Garrison et al. (2000) study to further their understanding.

Tested, validated, and used for development, instruction, assessment, and evaluation, the CoI guides practitioners in their creation and application of methods and tools that can support student learning and add to the opportunities students have for deeper engagement in the course, increased academic success, and continued persistence in their education. Community is the foremost component of the CoI. Students who view themselves as part of a community of learners within the course, and throughout the program, are more engaged and “researchers in higher education have consistently viewed community as an essential element in achieving the higher levels of learning associate with discourse and collaborative learning” (Ice & Kupczynski, 2009, par. 2).

Three main components, or presences, provide the structure of the CoI Framework; teaching presence; social presence; and cognitive presence (Garrison, Anderson, & Archer, 2000; Swan, Richardson, Ice, Garrison, Cleveland-Innes, & Arbaugh, 2008. Below is the model of the Community of Inquiry from the article *Critical Inquiry in a Text-Based Environment: Computer Conferencing in Higher Education* (Garrison et al., 2000).

![Community of Inquiry Diagram](image)

(Garrison et al., 2000, p.2)
Communication, Collaboration, and Community

We wanted to create a community that encouraged our geographically-dispersed team members to be open and communicative with one another, allow us to make adjustments with agility, and support the development process with collaboration tools throughout the entire project. At the foundation of our philosophy is our project leader who provides clear, consistent, proactive and open communication at all times to all team members. Working in this manner allowed us to gather feedback then successfully make adjustments as needed, to provide the most appropriate supports for the team at that time.

To supplement email and the conference call in number we are using the web conferencing software, Adobe Connect Professional (http://www.adobe.com/products/acrobatconnectpro/). This allows us to host meetings during which team members can share information and ideas, provide and receive feedback, share files, chat with each other, conduct polling, and hold breakout meetings all from an internet browser and the Adobe Flash player (http://get.adobe.com/flashplayer/). To further supplement the communication among team members we ask that they download Skype (http://www.skype.com/useskype/) which is a free software download that allows users to hold free phone conversations, over the Internet, with other Skype users. In addition to the phone feature, we use the instant message and video chat features with other Skype users as well.

Initially, our project management tool of choice was Microsoft Excel. On a daily basis the project leader would manually updated the project’s status on the Excel spreadsheet and then email it to team members. While Excel has many good features, it did not allow us to dynamically update project process nor did it promote a sense of collaboration. We sought a better way to keep everyone up to date with project status, team milestones and expectations, etc. What we now use is the web-based project collaboration application, Basecamp from 3Signals (http://basecamphq.com/). Our projects in Basecamp are set up with the project’s milestones and deadlines and the team member responsible. In addition, team member can post messages and upload files to the whole team or a selected group. When messages posted or an update has been made to a milestone or if a file has been uploaded everyone that is part of the project receives an automated email. This application allows us to shift the entire project burden from one individual to the group or team.

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At first our content development, instructional design and peer review process occurred when the course design template, a Microsoft Word document, was shared via email among the three team members. As the course is developed more content is added. The document can grow to as many as 100 pages which can eventually overload everyone’s mailbox capacity; including the project leader and possibly others who have been “copied” on those emails. Also, keeping track of the latest version in the email inbox can become overwhelming as the document makes its way through the numerous project checkpoints. Our solution to implement the use of the free, online word processor, Adobe Buzzword (https://buzzword.acrobat.com) allowed the team to create and collaborate online without having to email large documents or worry about version control of the document. The development team can read, review, comment on or co-author the document while in Buzzword and send a notification email that the document is ready for review rather than sending the entire file. It should be noted that another option for the sharing of files and version control can also be Basecamp, however we find Adobe’s Buzzword to be the best tool for the development of the course. Lastly, internally, we are using Dropbox (www.getdropbox.com) to store and synchronize the source files (Syllabi and final forms of the Course Design Template) from all projects and it allows us the ability to access the files from either our desktop or the web as well as share the files with the appropriate persons.
Final Thoughts

Planning and communication are essential to a successful project. Although our initial planning was done rapidly, we created a stable project framework which allowed us to still be successful. We maintained a commitment to consistently communicate with all the team members while we maintained the initial project framework. Our continuous self-evaluation and the frequent feedback from team members not only led to the realignment and adjustment of our methods with this course development and design process; but it laid the groundwork for future scalable project processes scenarios. It should be noted that although this agility was beneficial for future iterations of the process implementation, it did impact the team members having to make the adjustment sometimes significantly. However, because of the supports we had in place and the ability of everyone to be as flexible as they were, the transition was generally successful, with very little negative impact to the deadlines as a whole. Looking forward we would like to explore two specific areas in our development process so that we can begin to lay the groundwork on which we can build future development and design processes. First, we would like to explore how the three CoI presences are impacted by our use of peer reviewers in the Development step. Second we would like to continue to monitor the significance of the impact to the CoI data when faculty members develop the courses they will teach as a member of our collaborative development course design process, when faculty teach a course they developed on their own, and when faculty are provided a course which was developed by another subject matter expert within the APUS Instructional Development and Design Process.
References


AUTHOR SUMMARY

Jennifer Staley is Director of Instructional Development & Design at APUS. She has a Masters of Education and B.S. in Management. Her nearly 20 years experience in education and corporate environments has enabled her to not only successfully envision, build then lead the Instructional Design team at the University, but to successfully create and maintain cooperative inter-departmental relationships while consistently meeting deadlines in an agile manner. She manages the process through which new programs are developed, designed and launched; facilitates the continuous improvement and enhancement of courseware; establishes and maintains working relationships with resource providers to determine cost efficient methods of introducing new technologies and course materials into the online classroom.

Phil Ice, Ed.D. is Director of Course Design, Research and Development at APUS. His research is focused on the impact of new and emerging technologies on cognition in online learning environments. Work in this area has brought Dr. Ice international recognition in the form of two Sloan-C effective practices, a Sloan-C Effective Practice of the Year Award – 2007, application of his work at over 50 institutions of higher education in 5 countries, membership in Adobe's Higher Education Leader's Advisory Committee and multiple invited presentations, workshops and book chapters related to the integration of emerging technologies in online courses. Examples of his research include the use of embedded asynchronous audio feedback mechanisms, using web 2.0 tools for collaborative construction of knowledge through integration of RIA’s and remote observation of student teaching experiences using asynchronous, flash-based environments. Phil is also involved with seven other researchers in the United States and Canada in numerous other research initiatives related to the Community of Inquiry Framework. This research has resulted in the development of a validated instrument that captures the intersection of Teaching, Social and Cognitive presence in online environments.