Title: A Flippin' Great Idea, Mac! Using iPads to Facilitate a Flipped Core Curriculum

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Project Category: 1: Proof-of-Concept or Start-up

Overview of project: The twenty-first century student is immersed in technology from cradle to grave; if instructors do not keep pace, students will desert the institution in search of instructors who will meet their needs and expectations. Our project seeks to equip a newly-consolidated faculty with the technology and training necessary to revise delivery in a manner that will increase student and faculty engagement and reduce costs for students. The primary action plan is to identify at least one course in each area of the core curriculum and provide technology and training for faculty teaching those courses to design their own course materials for electronic delivery and create the means by which the classroom can be "flipped."

Impact on completion: Purchase of textbooks is becoming cost-prohibitive throughout the higher education community and particularly in South Georgia, resulting in the fact that many of our students choose not to purchase textbooks. That choice often leads to inability to grasp course content, which in turn leads to withdrawal or failure. Our project will make course materials available electronically at a much-reduced cost to students in a very attractive format, and "flipping" the classroom will foster synthesis and deep learning which should increase retention and completion. The project will also facilitate collaboration and the establishment of common learning outcomes among our consolidated faculty.

Potential lessons to be learned: Faculty will gain a better understanding of how to communicate effectively with and motivate millennial-generation students. Faculty will also learn how to use technology as a tool to enhance effective teaching, not as a replacement for ineffective teaching. Students will learn that they must take some responsibility for learning and that they must prepare for and participate in class in order to be successful. Students will master critical inquiry skills. Faculty and students alike will learn that degree completion can be accelerated without compromising academic integrity.

Concept Description: Budgetary concerns for institutions and students alike underlie the need for more cost effective solutions to the acquisition of course materials. Every student must complete a minimum of thirty-eight credit hours of course work in Areas A, C, D, and E of the core curriculum to fulfill degree requirements; textbook costs for those thirty-eight credit hours currently run upwards of $2000. In one semester alone, a student can expect to pay as much as $700 for textbooks, and that assumes only a twelve- to thirteen-credit-hour load with courses distributed over four areas of the core. Instructors often hear that 1) students cannot afford the texts; 2) students do not want to buy a text with forty chapters when only twelve of them will be covered in the course; or 3) students bought the text two years ago but had to withdraw from the course and now the text has changed so the old text is useless, requiring them to buy a new text which, once again, leads to comment 1 or 2! When students do not buy books, they fall behind within the first two weeks of class and almost never catch up, resulting in a high rate of withdrawals or failures.

Our project plan will provide training and iPads to core curriculum instructors as well as access to iMac computers with iBooks Author software for them to use collaboratively to create common student learning outcomes and their own course materials that can then be uploaded to the iBooks app. The hope is that within a year, students will no longer need to buy textbooks for the selected core courses; instead, they will buy iPads preloaded with all the course materials they will need for their core curriculum courses at a fraction of the cost traditionally required. Making the course materials available electronically in a variety of formats (now interactive and much more dynamic than they have traditionally been) will also force a shift in pedagogy; classes will be "flipped," redefining the role of the instructor to that of a facilitator of knowledge as opposed to a provider of knowledge. "Flipping" incorporates the use of technology to deliver outside of class what traditionally has been delivered inside the classroom and then using class time to actively engage students in demonstrating higher level thought and application of concepts to other contexts. Use of educational apps on the iPad, combined with the mobile technology's productivity and multimedia capabilities, allows faculty the freedom to design their own "flipping" framework while also allowing students the opportunity to create their own customized learning plan. The iPad offers the most intuitive, adaptive mobile technology currently available in higher education, and its application in "flipping" has not been fully utilized in any systematic manner, which is what we propose to do.

Use of technology already permeates South Georgia State College and provides a platform for this initiative. Faculty are already quite adept at the use of technology to enhance instruction. Many make use of the Desire2Learn learning management system, and PowerPoint has become ubiquitous. Online courses have been developed and offered for several years, and many instructors use electronic supplements to existing texts. An upcoming topic for the College's Faculty Academy and Mentoring Experience (FAME) session is "Flipping Your Classroom: The Ins and Outs at SGSC." Clearly, our faculty are interested and our administration is supportive of the innovative application of current developments in technology and pedagogy.

The Pierce County school system, a feeder to our institution, has recently received a $1.69 million Striving Readers Comprehensive Literacy Planning Grant from the Georgia Department of Education as part of a federal program. Local news outlets have indicated that those grant funds will be used in part "…to teach students…to access, use, and produce multiple forms of media, information, and knowledge in all subject areas" (Jason Deal, *The Blackshear Times,* 21 March 2013). When those students matriculate to South Georgia State College, they will expect to have the same access to technology to which they will have become accustomed.

Reduced costs to students and widespread use of cutting-edge mobile technology and pedagogical tools should increase retention and graduation rates and serve as a powerful recruiting tool. Current articles in *Campus Technology, Inside Higher Ed,* and the *Chronicle of Higher Education* support the efficacy of "flipping" the classroom to increase student success. "Flipping" fosters higher-level analysis, application of knowledge, and performance-based learning and assessment. It also maximizes opportunities for individualized instruction and collaborative learning and transforms students from passive to active learners. We expect to see a significant decrease in withdrawals from and failures in core curriculum courses as well as an increase in enrollment. Institutions that have already incorporated the use of iPads have seen positive results. At Seton Hill University, iPads have been in use since 2010, initially strictly for textbook delivery but later incorporating online resource access, notetaking, and social networking for collaborative learning; Phil Komarny, Vice President for Computer and Information Technology, has noted enrollment growth and "'a total culture change in 18 months'" (*iPhone Life,* Sept-Oct 2012, p. 39). Instructors often complain about students using cell phones when they should be paying attention in class. Instead of complaining, we propose to embrace those tendencies and divert them into a dynamic learning experience.

Connection to campus completion plan: South Georgia State College's completion plan outlines four goals, all of which are addressed by this proposal. Our project is particularly relevant to Goal 1, to "advance teaching and learning experiences through the increased use of pedagogical approaches fostering deep learning, student engagement, and application of knowledge to solve real world problems." We believe that restructuring instructional delivery in the method we have described will shorten time to degree by decreasing withdrawals and failures. Goal 2, to "foster an environment that supports education through the integration and interdependence of living and learning provided by college-wide support services," has as its primary focus an emphasis on effective advisement and early intervention, concerns that will remain quite significant in the plan. At the same time, though, Goal 2's attention to the significance of a supportive educational environment will be enhanced by the ability of the iPad to enable students to "engage with content in interactive ways, find information in an instant, and access an entire library wherever they go" (www.apple.com/education/), which is the intention of the Goal 2 strategy to "redesign the delivery of higher education to fit more seamlessly into students' lives." Goal 3, to "enhance the quality and enrich the composition of the student body through recruitment and selection methods as well as dedicated commitment to increase persistence and retention," will also be met because our new approach to learning can be used as an attractive recruitment tool that will provide a window to the world for rural Southeast Georgia students. And, finally, our proposal will affect every degree program by focusing on the core curriculum as we attain Goal 4, to "promote academic excellence by providing high-quality educational programs."

Theory of change and/or illustrated logic model: Our theory of change model depicted on the following page encompasses our entire plan for this project, but the portion of the model pertinent to this grant proposal ends with course materials being uploaded into the iBooks app.

We seek this incubator grant solely for the purchase of equipment and training of faculty in the creation of course materials. We believe that this proposal, while at first glance perhaps construed as being a start-up proposal, could actually become a proof-of-concept project once it is fully implemented.
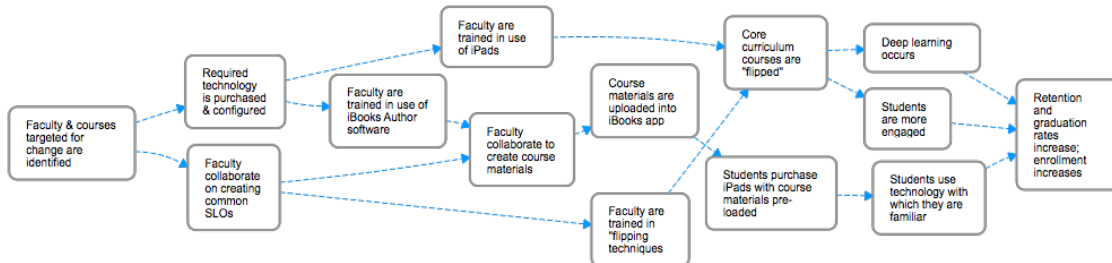
Potential for lessons learned: The prevalent belief among faculty is that the current generation of college students does not read assigned materials; we hope to learn that if assigned materials are presented in an interactive, creative, customized format, students will not only read but they will comprehend the materials, thus enabling them to apply the concepts learned in a manner that exhibits critical thinking within the classroom. By limiting our proposal to selected core courses only, we expect to learn whether or not students will gravitate to this platform of delivery, which will then inform decisions about future expansion of the project.

Models for other institutions: Use of iPads to deliver course materials has been introduced at a number of institutions, most notably at Seton Hill, Reed College, Arkansas State University, and Lynn University, but those initiatives have mostly just replaced traditional texts with electronic texts; Chris Boniforti, chief information officer at Lynn, "hopes the iPad initiative will be a step toward a 'flipped classroom'" (Alexandra Tilsley, "iPad U," *Inside Higher Ed,* 15 Jan 2013). Though certainly not a new idea, "flipping" has become the trend *du jour* in higher education, with definite and measurable results. Perusal of any current symposium agenda will reveal a plethora of presentations on the topic, but none that we have found incorporate the use of iPad and iBooks Author to facilitate the "flip." We hope that our project will provide for other institutions a model of how technology can bolster effective teaching, aid in assessing common student learning outcomes, and strengthen academic integrity while shortening the time to degree.

Major project phases, activities, and milestones with timeline:
Phase One (late May 2013): identify the courses and instructors involved in the project and purchase and configure the technology required for the project
Phase Two (June-August 2013): train faculty in the use of technology and pedagogical changes necessary for completion of the project
Phase Three (August 2013-May 2014): faculty collaboratively develop course materials to meet common student learning outcomes
Phase Four (June 2014): faculty upload course materials into iBooks app and incorporate "flipping" techniques into the curriculum
Phase Five (Fall 2014): students registering for the courses clearly identified as piloting the new platform purchase iPads; faculty "flip" the courses

Goals and objectives: The primary one-year objective achievable through this grant opportunity is to provide the technology and training necessary for transforming pedagogy.

Consideration of potential measures or data sources for evaluation: Assessment data could be drawn after a period of two years from such sources as enrollment data, D/F/W rates, retention and graduation rates, Community College Survey of Student Engagement or National Survey of Student Engagement data, locally developed student surveys, student interviews, written evaluations of the project by faculty, and assessments of student learning outcomes.

Consideration for sustainability or how work will inform other efforts once project is complete: Once this project is complete, analysis of assessment data will indicate the need for sustainability. If the decision to expand the program is made, faculty members who have already been trained can then become the trainers for faculty entering the project. The only additional funding necessary will be to purchase more iPads. Those costs can either be absorbed by existent institutional budgets or sought from other grant sources. If the core curriculum pilot shows promise, the project could be extended to degree programs' areas of study, thus creating a "flipped" institution.

• This proposal was created in Evernote on an iPad mini!