Blended Learning: Theoretical Foundations

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The Brief Report Series from the Center for Learning and Innovation
Introduction

Welcome to the “Brief Report Series” from the Center for Learning and Innovation at Indiana Wesleyan University. The purpose of this series is to provide faculty and administrators with current information related to the development and delivery of learning opportunities in diverse modalities and the scholarship of teaching and learning. In pursuing this goal, we additionally want to provide useful information that can be easily translated into practice.

This inaugural edition of the Brief Report Series focuses on the theoretical foundations of blended learning. There is growing evidence that blended learning has the potential to dramatically impact the manner in which we think about teaching and learning in higher education. This mixed mode of instructional delivery merges the boundary between face-to-face and online instruction and intentionally capitalizes on the best features of each learning modality. As you read about theoretical implications of blended learning, begin to think about how this form of instruction could be applied within the courses that you teach. Future editions of the Brief Report series will continue to present research based theories and strategies with a focus on translating these into course-based practices.

Thank you for engaging with this text. Thoughts, ideas, and questions are always welcome. With that in mind, please feel free to contact us at CLI@indwes.edu.

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Blended Learning...Why This, Why Now?

These are fascinating times to be teaching in higher education. Monumental changes are emerging at an ever-increasing rate. One driving impetus for this change continues to be the pervasive availability and functionality of technology. It is mobile, ubiquitous, and interactive (Dew, 2010; Johnson, et al., 2013). According to Dede (2007), new technology not only impacts the culture as a whole but also the ways in which students and faculty conceptualize and apply the process of teaching and learning:

The implications for institutions of higher education go well beyond the surface conclusion that students are using interactive media, so we had better use them too. To the extent that powerful engagement and learning, thinking styles, and new literacies are emerging from students’ usage, the academy should rethink how we view the creation, sharing, and mastery of knowledge. (p.20)

Moreover, studies by Chronicle Research Services (2009) and the U.S. Department of Commerce (2010) suggest that students will continue to demand increased access to technology and to flexible asynchronous learning experiences. As part of this growing demand, The U.S. Department of Commerce identified several practices that are likely to increase in prevalence as students demand increasing convenience for postsecondary instruction:

- Students will increasingly expect access to classes from cellular phones and other portable computing devices
- They may sign up to take a course in person, and then opt to monitor class meetings online and attend whenever they want.
- Classroom discussions, office hours with a professor, lectures, study groups, and papers will all be online. (p. 9)

Thomas and Brown (2011) conceptualize these emerging developments as a “new culture of learning” (p. 17), where engagement with information happens everywhere, not just in the classroom. In this new milieu, higher education moves from a stable infrastructure (i.e., learning as the acquisition of a defined collection of knowledge) to a fluid infrastructure...
where teachers and learners interact with knowledge and use technology for the purpose of creating novel applications for existing bodies of knowledge. For 21st century faculty members, many of whom would probably be classified as “digital immigrants” (Prensky, 2001), staying ahead of that curve (or just keeping up) could prove to be a daunting task (Duderstadt, 1999).

So then, how are faculty members actually doing in relation to the integration of technology into the process of teaching and learning? The 2009 results of the “Faculty Survey of Student Engagement,” revealed that a majority of instructors do not feel a strong need to use technology, even while teaching a generation of students who have grown up only knowing the realities of a digital culture (Chronicle of Higher Education, 2010). For example, although 72% of the respondents report using course management systems (e.g., Blackboard, D2L, Sakai, Learning Studio, Moodle), they are much less likely to incorporate other kinds of technology that students commonly use, such as collaborative editing software (e.g., Wikis, Google Docs), 16%; blogs, 13%; video conferencing or internet phone chat, 12%; and video games or simulations, 9%. Beyond noting low levels of technology use by faculty, we might conclude that many faculty members either do not appreciate the instructional advantage and opportunities that can be gleaned from the effective integration of technology.

These numbers may also be a function of faculty not seeing themselves as first adopters when it comes to selecting and using technological applications that have been designed to facilitate learning in higher education.

Two of Google’s top managers were asked about the role of innovation by faculty members, and the role of technology in higher education. They observed:

Factories don’t look the same as they did 50 years ago because of technology; many classrooms do, despite it…. Educators must be willing to accept failure. Schools that build a culture where professors are encouraged to try something new and screw it up a few times
in order to get it right—they will be the most successful adopters of technologies.... But the only way a professor can figure out what works is by trying five things that don't. That's just part of the process. (Bisoux, 2010, p. 23)

A reluctance to change, and be willing to try out some new approaches to teaching that simply don’t work, according to Tagg (2012), is not totally dependent on the level at which individual faculty members are either willing to take risks or be flexible and teachable. It goes much deeper. Many faculty find themselves teaching at institutions that simply are not designed, poised, or willing to risk what it takes to promote and encourage innovation in the face of a rapidly changing culture. Given what we know today, it is reasonable to speculate that the most successful institutions in the next decade will be those that intentionally embrace technology for the opportunities it represents. It will provide the learning tools of the future and maximize the level at which learning situations can be individually responsive and adaptive to individuals.

Part of this picture will also be impacted by the increasing numbers of students who have become acquainted with various forms of online learning during their K-12 experience (Bushweller, 2012). Poirer (2010) cites a meta-analysis completed by the U.S. Department of Education (2009) indicating that blended courses are the fastest growing learning modality in K-12 education. As these students begin to enter higher education in greater numbers, they will bring along with them a reasonable expectation that the integration of technology should be an integral part of their learning during their college years. The systemic challenge will be one of creating high quality, engaging, and meaningful online experiences that advance the purpose of helping students learn and accomplish identified learning outcomes.

The Emergence of Blended Learning as a Modality for Teaching and Learning

In the midst of a growing and dynamic digital environment, blended learning has emerged as a promising way to foster engaging, interactive learning experiences. As we will examine, blended learning is an instructional environment that intentionally unites the best features of
face-to-face (F2F) and online learning venues in a synergistic manner for the purpose of achieving identified student-learning outcomes. This unification requires a thoughtful focus on learning outcomes, assessment strategies, and the design of learning experiences that capitalize on the unique features of the F2F and online learning venues.

The term “blended learning” has become one of the hottest buzzwords in higher education. There has been a dramatic proliferation of publications, webinars, and presentations at national conferences on the benefits and process for creating and using blended learning in varied learning situations. There is, however, some confusion surrounding the term blended learning that partially stems from the varied terms that are being used to describe this delivery modality including hybrid instruction, mediated learning, technology enhanced instruction, web enhanced instruction, and web assisted instruction (Delialigoglu, 2012).

One helpful approach to delineate the varied modalities for instruction has been offered by Allen and Seaman (2013). They identify criteria that can be used to distinguish between the four most basic course delivery methods:

- **Traditional** modality which is provided entirely in a classroom using face-to-face instruction
- **Web Facilitated** modality which includes a face-to-face component and between 1% and 29% of instruction through online delivery
- **Blended/Hybrid** modality which includes a face-to-face component and between 30% and 79% of instruction through online delivery, and
- **Online modality** in which 80% or more of instruction is provided through online delivery.

Below, in Figure 1, is an additional sampling of definitions that are currently being used to capture the spirit and intent of blended learning.
Figure 1

Sample Definitions of Blended Learning

“To combine or mix modes of web-based technology (e.g., live virtual classroom, self-paced instruction, collaborative learning, streaming video, audio, and text) to accomplish an educational goal. 2. To combine various pedagogical approaches (e.g., constructivism, behaviorism, cognitivism) to produce an optimal learning outcome with or without instructional technology. 3. To combine any form of instructional technology (e.g., videotape, CD-ROM, web-based training, film) with F2F instructor-led training. 4. To mix or combine instructional technology with actual job tasks in order to create a harmonious effect of learning and working.” (Driscoll, 2002, 54)

“Blended learning is the thoughtful fusion of F2F and online learning experiences. The basic principle is that F2F oral communication and online written communication are optimally integrated such that the strengths of each are blended into a unique learning experience congruent with the context and intended educational purpose” (Garrison and Vaughn, 2012, p.5)

“Blended learning systems combine F2F instruction with computer-mediated instruction” (Graham, 2005, p.5)

“A blended learning approach combines face to face classroom methods with computer-mediated activities to form an integrated instructional approach. In the past, digital materials have served in a supplementary role, helping to support F2F instruction.” (http://weblearning.psu.edu/blended-learning-initiative/what_is_blended_learning)

Blended learning is a mixing of different learning environments, giving learners and teachers a potential environment to learn and teach more effectively. Blended learning combines F2F classroom methods with online activities to form an integrated instructional approach (Rydeen, 2011, p.38)

“Blended learning is the most logical and natural evolution of our learning agenda. It suggests an elegant solution to the challenges of tailoring learning and development to the needs of individuals. It represents an opportunity to integrate the innovative and technological advances offered by online learning with the interaction and participation offered in the best of traditional learning. It can be supported and enhanced by using the wisdom and one-to-one contact of personal coaches. (Thorne, 2003, p.2)

Despite the subtle differences between these definitions, we can discern several key components they have in common:

- Blended learning includes both F2F and computer-mediated elements
- The F2F and computer-mediated components of blended learning each bring unique and purposeful contributions to the learning experience
Instructional strategies are positioned in the online or F2F portions of the course to maximize their impact on student learning.

The flexibility of the environment allows learning components to more closely align with the student learning outcomes, and

The ultimate outcome of blended learning is that it offers the “best of both worlds” in an effort to improve the quality of student learning.

Four Elements of Blended Learning

Graham (2006) has suggested that we can delineate the elements of blended, online, and F2F learning across four key dimensions: Time, Fidelity, Space, and Humanness. An understanding of these factors helps faculty to maintain a perspective on the unique features of the varied learning modalities and how they might be best capitalized to promote student learning.

**Time.** In relation to *time*, Graham suggests that faculty should intentionally focus on the amount of time that is allocated to online and F2F learning experiences. Interestingly, as a means of promoting accountability across the academy, *The Higher Education Opportunity Act of 2008* stipulates that a semester unit of credit is based upon roughly 750 minutes of classroom time and an additional 1500 minutes of outside-the-classroom preparation and assignments. This delineation provides a metric for thinking about the types and quantity of learning experiences that should be included in the design of college courses.

F2F instruction, by its very nature, is generally structured within specific time frames (e.g., Monday/Wednesday/Friday from 9:00 A.M. – 10:00 A.M.). The challenge often faced by faculty in planning for a blended learning experience is one of gauging the amount of time that students will need to invest in order to complete the online portion of the course (i.e., reading assigned materials, participating in discussion forums, etc.).
engaging with digital learning objects, completing online quizzes and tests). In a very real sense, this quandary is no different than trying to speculate the amount of time that students will theoretically invest in reading textbooks and completing written assignments.

Simonson (2011) argues that there is no current metric for equating the time spent on a three-semester course in a F2F setting with the time spent in a similar online or blended course. A meta-analysis completed by the United States Department of Education, focusing on evidence-based practices, additionally acknowledges time as an issue of concern in the assessment of online learning but falls short of suggesting a means to respond to this issue (Means, Toyama, Murphy, Bakia & Jones, 2009). The variable of time is one that will invite continued conversations within the academy as stakeholders wrestle with the metrics that can be effectively used across disciplines and modalities to assess academic rigor and the levels of time and effort expected from students as they matriculate through higher education. We have included in Appendix A, for your consideration, an estimate of the time spent on many of the varied learning activities that are common to online learning experiences.

**Key Question:**

*What is the criteria that you will use to determine the amount of time invested in face-to-face and online learning?*

**Fidelity.** Within the construct of fidelity, Graham (2006) suggests a continuum ranging from “High” (i.e., instructional experiences that engage all of the senses) to “Low” (i.e. learning experiences that are entirely text-based). Whether teaching in a F2F or online venue, there would likely be widespread agreement on the need for an ongoing process to improve the level at which every instructional experience chosen is high in fidelity (i.e., engaging, captivating, productive, and directly connected to course learning outcomes). Part of the challenge in accomplishing this outcome are the levels at which today’s learners consistently engage with entertaining technology on their omnipresent collection of devices. This level of exposure to
colorful, interactive, and stimulating software apps raises the bar for educators attempting to embed content, skills, and intellectual habits into the hearts and minds of their students. Like it or not, higher education must learn to compete in this arena. This will require that faculty get beyond the common belief that learning must serious and rather painful to be effective. It is entirely possible to create visually attractive and interactive teaching tools that are engaging and also drive students toward the accomplishment of identified learning outcomes.

Readers are encouraged to visit the “Multimedia Educational Resource for Learning and Online Teaching (i.e., MERLOT @ www.merlot.org) and sample some of the free open source learning tools that can be used in online teaching.

We would suggest that fidelity in online learning will become an increasingly critical concern in the 21st century. For blended teaching, fidelity must be considered equally in the online and F2F venues. That is, when in the F2F setting, students should be provided with learning experiences that are active and interactive and that allow them to process and engage with course content. In the online venue, students should be equally engaged with a variety of documents, video and audio clips, simulations, and web-based resources. These tools are currently available for use in F2F and online settings. We are only limited by our imagination and willingness to search for tools that connect with our students and our learning outcomes.

**Key Questions:**

- What are some of the strategies that you will employ to enhance the fidelity of the face-to-face and online learning components of your blended learning course?
- How are these decisions balanced against the level at which learning experiences contribute to the accomplishment of identified learning outcomes?
• What are some of the currently available and accessible tools that can be accessed on the internet?

**Space.** The element of *space* is characterized as a continuum that extends from full F2F (i.e., “Live”), a mixed reality of F2F/online, and totally online (i.e., “Totally Virtual). The implications of this continuum seem to create a rather skewed perception of the “high touch” F2F environment and the “high tech” (and, therefore, “low touch) online environment. These characterizations, of course, are exaggerated and whether F2F or online depend on the levels at which faculty are accessible to their students. This reality points to the absolute necessity for faculty, whether in an online or F2F venue, make every effort to connect with their students and build relationships with students.

**Key Question:**

• What strategies might be helpful in building relationships with students in a F2F or online setting?

**Humanness.** The final element in Graham’s F2F/online continua is *humanness*. The continuum is configured to distinguish between learning experiences that are delivered by a human (i.e., a faculty member) from those that are delivered by a machine (i.e., computer). Again, there is a subtle stereotype embedded within this continuum. Some conjecture that the online learning experience does not have the potentially warm, caring, interactive features of a human being. Without taking this analysis too far, it is proposed that thoughtful faculty, whether in F2F or online venues, are the heart and soul behind the actual delivery of every learning experience. There may be a communicative difference between the modes of F2F and online relationships and communication. At the same time, however, the quality of the message, whether F2F or
online, can be equally powerful as a means to connect faculty and students. One primary reason is that all students interact. Faculty build relationships with the introvert, as well as the extrovert that typically emerges in the F@F environment.

Whipp and Lorentz (2009) suggest that the “human” factor can be enhanced in online environments through immediacy and the establishment of social presence. In the area of immediacy, they suggest:

Communication studies of teacher immediacy ... identified how instructors in online classes can use a variety of immediacy behaviors to makeup for their lack of physical closeness to students. In a study of instructors in three different types of media settings (text-based, audio, and video), they found that instructors in each of these settings used immediacy behaviors that were appropriate to their particular medium. The text-based instructors, for example, used praise, personal examples, first names, questioning, humor, and digressions; instructors on video used gestures, smiles, a relaxed posture, and movement around the classroom.(p 171).

Closely related, social presence, from their perspective, includes the variety of ways that faculty and students connect socially and emotionally in an online venue (e.g., sharing stories, praise, acknowledgements, humor, self-disclosure). Regardless of the venue, faculty absolutely must make the commitment to reach out to students and build solid relationships. It is this foundation to promotes the process of learning.

Graham’s model has utility in the sense that we could take any course in any discipline and perform an analysis of instructional delivery in relation to time, space, fidelity, and humanness. Perhaps in the near future, we will see blended learning further subdivided into levels and categories that have not yet been imagined. But in the final analysis, whether we talk of F2F instruction or online instruction or the variations of blended learning, the bottom line must always be the quality of student participation and the levels at which they are achieving the
identified learning outcomes. Teaching, in any form, is ultimately about the learning that occurs.

**Blended Learning Gains Momentum**

To place this “new” approach to teaching and learning in its proper context, it should be noted that blended learning is not, in fact, a new phenomenon. Blended learning has been effectively used as an instructional venue in corporate leadership development programs (Hovis, 2012), auto maintenance (Barber, 2012), retail sales (Morton, 2008), tourism (Bailey and Morais, 2004), public health (Chiu, 2012), law enforcement (Leal, 2009), volunteer training (Geiman, 2012), insurance (Harris, 2012), customer service (Strauss, 2008) and many other industries. It is reasonable to ask, therefore, why blended learning is quickly gaining such great momentum as a promising modality for teaching and learning in higher education. Prouix (2012) described the allure of blended learning:

> Gone are the days when students need to pile into large auditorium just to hear a lecture. By leveraging online platforms, lectures can now be pre-recorded and core content accessed by students any time, anywhere, and as many times as they need. This means that classroom time can instead be used to augment the lecture content, whether through discussion, group exercises or quizzes. Also, since online platforms provide faculty with learner analytics, faculty now have even greater data on who is learning, what they are learning and how. So, the design of the classroom course is now ripe for innovation. This will create opportunities as universities continue to hone in on the most effective formats for learning in the digital age while they re-think how to better use classroom time and space.

This explanation raises several topics that invite further examination. First, as we have discussed, part of this reality is the growing role of technology in our daily lives. Our students, many of whom have always lived in digitally rich world, see obvious advantages in the blended learning model. Napier, Dekhane, and Smith (2011) summarized the benefits that students perceive in the blended format to include the availability of flexible scheduling, a sense of empowerment in establishing the pace of their own learning, and a general sense that they were assuming more responsibility in managing their academic progress. The pace at which colleges
and universities acknowledge the role that technology does and will play in the instructional process could very well determine the level of their success and vitality in near future (Chronicle Research Services, 2010).

Second, the blending process has the potential to strategically capitalize on the strengths (and overcome the weaknesses) that are often observed in many F2F or online classes. For example, students in F2F classes often express concerns about the level at which faculty persist in ineffectively using the lecture as a primary teaching strategy. This scenario could be dramatically altered through blended learning if the following conditions could be effectively implemented:

- Students are exposed to important instructional content through a variety of online learning experiences (e.g., reading, audio, video, interactive digital learning objects, games and simulations),
- Students are expected to engage with these resources and are held accountable for their performance (e.g., engagement with digital assets, quizzes, discussion boards, journals, problem-based learning tasks, wikis), and
- The F2F portion of the blended learning course invites students into discussions and explorations of learned content in a variety of ways (e.g., group learning tasks, debates, presentations, service learning, guest speakers, practica, video conferencing).

Finally, we predict that this initial attraction to blended learning is only the beginning. Graham (2006) boldly suggests that “… Although it is impossible to see entirely what the future holds, we can be pretty certain that the trend toward blended learning systems will increase. It may even become so ubiquitous that we will eventually drop the word blended and just call it learning” (p. 7).
Results that Inform Practice

We speculate that the emergence and increase of blended learning will create cultural shifts in higher education. One of the factors that will facilitate this process is the opportunity for faculty and students to slowly and intentionally capitalize on the best parts of the F2F and online worlds. As we have traveled this road ourselves, there were several points at which we had new insights into how to prepare and deliver courses in a blended format. Some of these include:

- The need to engage in front-end preparation for course delivery
- The need for faculty to change how they teach in a F2F setting
- Opportunities to now students more personally through F2F interaction and journaling
- The opportunity to engage students in one-on-one meetings
- Engaging experiences that provide for individual and collective processing
- Students exercise more control over their own time and learning
- Students see connections to learning in the reduction of “busy work”
- A need to commit to academic rigor

We will share some of these lessons and the manner in which these dimensions impact the process of blended learning course development.

The Need to Engage in Front-End Preparation for Course Delivery

There is a general expectation in higher education that faculty engage in a systematic planning process before the beginning of each semester and course. Some of the course design and implementation elements that become part of this planning process include a review of previous teaching experiences with a particular course, making modifications to content and pedagogy, and editing the course syllabus. Although many of these activities do occur prior to the beginning of the semester, there is also the reality of the work that must be done while
teaching courses during the semester: We strongly suggest that when designing a blended course faculty members commit themselves to completing the preparation process prior to the beginning of the semester. The difference being that in a blended course it is imperative that faculty load all of the online resources (e.g., syllabus, readings, quizzes, discussion board prompts, journal prompts, video, web links) into their campus-based learning management system prior to the beginning of the semester. There will, of course, be situations where a faculty member may need to make slight adjustments to this body of information of the course of the semester. Preloading your course, however, has several distinct payoffs:

- By default, preloading forces us as faculty members to think more strategically about the semester as a whole and how all of the pieces fit together in a coherent manner.
- This preparation also communicates to students that the faculty member has thoughtfully and intentionally designed this collection of learning experiences for this benefit.
- And most importantly... during the semester, we can focus our attention on the students and providing them feedback that promotes learning.

**The Need for Faculty to Change How They Teach in a F2F Setting**

Quite often, when we ask faculty members to consider the possibility of converting a course to a blended format, they respond by suggesting that it would be difficult because of their challenges with the technological aspects of teaching (e.g., electronic submission of assignments, online quizzes, discussion forums, websites, web tools). Their reluctance may be warranted but is something that can be rather easily overcome with consistent support and technical training and assistance.
Additionally, however, faculty may also be reluctant to think about the degree to which blended learning might require modification of their approaches to teaching in the F2F setting. Spend any time talking with college students and you will quickly hear them lament the prevalence of the lecture in their higher education experience. These observations are validated by data revealing that approximately 83% of surveyed higher education faculty identified the lecture as their primary mode of instruction (Chen, 2002). As a result, in most of their classes, students are often encouraged to assume a passive role in which they listen as their professors share soliloquies in their chosen fields of expertise.

A study by Nunn (1996) examined the impact of faculty teaching behaviors on student participation in F2F instruction. This study employed a sample of 579 students and their experiences in the classrooms of 20 faculty members who had been identified on their campuses as being “very good” teachers. During a series of observations conducted in 40 minute segments, less than 6% of the available time was characterized as reflecting “student participation” (e.g., answering questions, sharing personal examples, applying content) Further, only 25.46% of the students in the observed classes exhibited any of the identified participatory behaviors. According to Nunn, this data could reflect the faculty’s reliance on lecture as a primary means of instruction and/or the unwillingness of student’s to actively engage with opportunities that were provided with the intent of interaction.

As a means enhancing the level of student involvement in the F2F portion of the blended learning experience, it is suggested that faculty employ active learning strategies. Bonwell and Eisen (1991) suggest that active learning strategies in higher education classrooms share the following characteristics:

- Students are involved in more than listening.
- Less emphasis is placed on transmitting information and more on developing students’ skills.
- Students are involved in higher order thinking (analysis, synthesis, evaluation).
- Students are engaged in activities (e.g., reading, discussion, writing).
Greater emphasis is placed on students’ exploration of their own attitudes and values. (p. 2)

We strongly suggest that faculty consider the importance of using F2F class time as an opportunity for students to process and apply the things that they are learning through their reading and engagement with the digital resources that are integral to blended learning. Given the expectation that students are engaging with the course content, the classroom can become a place for lively dialogue and exploration.

Again, we point to the manner in which blended learning creates a reciprocal arrangement between what happens in the digital learning environment and what transpires in the F2F setting. Bowen (2012) describes that manner in which effective use of technology along with an interactive classroom can promote learning:

Technology gives us access to more and better content, communication, and assessment, but technology by itself does not create engagement. Traditional lecture courses can be improved by the judicious use of technology, but the primary benefit of technology-mediated content delivery, communication, and assessment outside of class is the additional time it creates for more active and engaged learning with prepared students inside the classroom. Nothing has more potential to eliminate boredom and create an incentive for students to come to class than a complete rethinking of the use of class time, overhauling it from a passive listening experience into a transformative learning environment. (p. 185)

Opportunities to Know Students More Personally

Many of today’s college students would affirm that social media as an important part of their everyday (or perhaps every minute) lives. Manago, Taylor, and Greenfield (2012) report that that an estimated 90% of college students are Facebook users and have friendship networks that include people classified as close connections, maintained connections, superficial connections, online connections, or strangers. Although these categories of friendship were specified by the authors as being part of the students’ digital world, they are not totally unlike those that we find in the “real” world of F2F relationships. What seems to make a difference, however, is that the information posted on social media sites like Facebook is searchable and generally available to a wide audience...even people that we might only classify as superficial friends or even strangers.
In the blended learning venue, online interactions provide opportunities for students to create and build relationships. For example, one of the key digital elements of a blended class is the Discussion Forum. In this setting, students are often asked to respond to a prompt provided by the faculty member and then additionally respond to the entries of their classmates (e.g., “React to the entries of three classmates”). As students respond to a discussion prompt, they are sharing their thoughts with the faculty member and every member of the class. Any response to a discussion prompt is also available for review and critique. Due to the interactive nature of this environment, students have the opportunity to learn more about one another as they engage in conversations and share their thoughts and ideas about the topic of the discussion forum. In many ways, these online interactions serve as an icebreaker for further conversations and relationship building that can continue in the F2F classroom.

Another helpful interactive digital tool found in most Learning Management Systems is the journal. In the journal format, students are invited to respond to a prompt with the understanding that only the faculty member will only see their entries. This protection often leads to students to share more about themselves and go deeper in their thinking as they apply course content to their lives and personal experiences. Faculty also get to know their students on a more personal level as they provide responses to the work submitted by their students. The key variable in making this a valuable learning experience is the willingness of faculty to set aside the time necessary to engage fully with what students have written and shared.

**The Opportunity to Engage Students in One-on-One Meetings**

For us, one of the most significant events in the process of designing and implementation of a blended learning course was the incredible valued-added experience of one-on-one meetings
with each student. Participation in these meetings was announced as a requirement for each student at the beginning of the semester in the course syllabus. These sessions, which can be conducted at the faculty member’s office or any convenient campus location, can be as short as 15-30 minutes but pays great dividends. As an example, the following items could serve as a template for one-on-one conversations with your students:

- Start by having students tell parts of their own story related to the course and their area of study (i.e., reasons for taking the course, how the course relates to their major/program).
- Ask if they have any questions or concerns about the course.
- Engage in conversation about how their semester is going (e.g., other courses, extracurricular activities, employment, family).
- Most importantly, put students center stage and build a bond that carries into the classroom.

Quite often, faculty will respond to this idea with a concession that this is a great idea and a caveat that they just don’t have the time in their busy schedule. Blended learning, by its very nature, provides windows of opportunity to accomplish this task. For faculty, this means creating available time slots during the week that they are available to meet with their students. Time is the obvious limitation; so start small, using the face-to-face approach in one course per semester. The results will be amazing. Through personalized face-to-face sessions, it is possible for you and your students to learn more about one another, share thoughts and ideas about the course, resolve questions or concerns, and strengthen relationships.

Engaging Experiences that Provide for Individual and Collective Processing

Blended learning can provide students with unique opportunities to process course content both on an individual basis and as part of a group. For example, in the Discussion Forum, students begin by posting original reactions and thoughts in response to a common prompt.
This initial posting triggers a series of responses and conversations with classmates in the online learning environment (e.g., critique, affirmation, questioning, clarification).

It is also desirable, of course, to create corresponding opportunities in the F2F setting for students to reflect on and respond to the things that they are learning. Meyer (2003) points out, however, the possible limitations on thinking, processing, and critical thinking that can often be arbitrarily imposed in the time-limited boundaries of a F2F class:

On campus, class time is limited to the 50 minutes or limited hours allocated to the course in the college schedule. Furthermore, because class time is limited, students must compete for time in class to display knowledge to the teacher and to get their ideas before the group or, in other words, to get their share of “air time.” (p.56)

This once again highlights the incredible advantage of blended learning in that student interactions and engagement with one another and course content is not restricted to the number of minutes allocated to a class in the schedule. Conversations and explorations can continue in the asynchronous online learning environment.

Another phenomenon that we have observed in the blended learning model is the opportunity for students who may have a tendency to be introverted, or who may require additional to process or synthesize content, to become active participants by sharing their thoughts and feelings in online discussions. This becomes most apparent when thinking about the interactions that occur in a typical F2F college classroom. There are always a small contingent of students who will answer every question posed by the faculty and have an opinion to share on every topic. At the same time, there is always a small group of students who never answer questions or share their ideas. We often have a tendency to speculate that the vocal students are the best prepared for class while those who are reticent are probably
either not prepared or not engaged with the class. Our analysis of the content that emerges in an online discussion debunks these stereotypes. Many times we have observed that the student who may not be willing to speak in class may also be the most thoughtful and insightful contributor to an online discussion. Both forms of communication (i.e., in the F2F class, online) are important to the process of learning. Blending the class format provides a means for all students to be successful contributing members of the classroom community.

**Students Exercise More Control Over Their Own Time and Learning**

As we have discussed, the design of F2F learning generally necessitates that classes meet at specified times and locations. Regular student attendance is generally an expectation. For these reasons, students often perceive that they have a minimal level of control in the management of their own learning. A blended learning format provides students with a greater level of autonomy in this process. So, although the blended class will likely meet at one or more specified times during the week, the remainder of the course-related work can be completed at a time and place that complements the individual student’s schedule (i.e., other classes, employment, family commitments, extracurricular activities) and that is most conducive to their learning preferences and best performance (e.g., a “morning” person, a “night owl”).

In the qualitative assessments that we have done in our blended courses, a consistent theme in student comments is their sense of empowerment to make decisions about when and where they engage with course content and learning experiences. This observation pertains to individual assignments such as discussion forums, essays, and online quizzes, but also is relevant to collaborative endeavors such as wikis. This process of self-management is helpful for students during their college careers but also becomes a valuable skill in preparation for post-graduation work settings.
It is worth mentioning that not all students are initially able to manage their time effectively and complete assigned tasks within announced deadlines. One of the beautiful things about the blended format, however, is that upcoming assignments can be announced in the F2F setting and also reinforced in the online portion of the class. For those students who might be slow starters, missing an assignment or two and seeing a zero in the electronic grade book is often all that is to prompt better performance and more consistency in completing assignments in a timely manner.

**Students See Connections to Learning in the Reduction of “Busy Work”**

It is not uncommon to overhear students refer to certain assignments as “busy work.” Wikipedia defines busy work as “… activity that is undertaken to pass time and stay busy… situations where people may be required to be present but may lack the opportunities, skills or need to do something more productive” (http://www.wikipedia.org/wiki/Busy_work). These types of complaints could be simply dismissed as a reflection of a student’s lack of willingness or motivation. On the other hand, it is entirely possible that students are being assigned tasks that actually have little to do with the accomplishment of course learning outcomes.

Ruohoniemi and Lindholm-Ylanne (2009) summarize the complexity of this issues and the level at which “busy work”, more accurately described as workload, impact the learning process:

In order to apply a deep approach to learning, students should have a stimulating learning environment in which the workload is manageable and there is sufficient time to study and understand the course content …. Heavy workload impedes the use of a deep approach to learning and undermines students’ motivation to study …. The perceived workload, however, has been found to vary individually. Factors such as a high number of class contact hours, a surface approach to learning, difficulties in distinguishing key concepts from supporting material, effort not leading to success and other forms of stress may lead a student to feel overloaded …. It has also been suggested that students employ a surface approach when they find the workload high. (p. 69)

As a corollary to student observations about busy work, it has become quite fashionable to have conversations about the lack of “academic rigor” within higher education. Arum and
Roksa (2011), in their controversial book *Academically Adrift*, propose that academic rigor is evidenced when faculty maintain high expectations for student performance, view student learning as a primary outcome, and provide learning opportunities that reflect the best practices and research in the scholarship of teaching and learning. There are several key reasons for increased interest in academic rigor:

- **Research, critique, and commentary that focuses on the perceived flaws of current practices in higher education.** There are a preponderance of opinions that define the perceived flaws in higher education as well as many promising proposals to correct those ills (Hacker & Dreifus, 2010; Keeling & Hersh, 2011). This interchange provides, at the level of individual faculty and within entire institutions, an impetus for ongoing self-reflection and intentional steps toward improvement.

- **The conversation continues on grade inflation as a reflection of lowered expectations for student performance.** A projected symptom of reduced academic rigor is the phenomenon of “grade inflation” in higher education (Hu, 2005). In practical terms, this means that high grades are easier to achieve than in the past and, therefore, has diminished value as a measure of student performance and learning. These conclusions are based on the ever-increasing rise in student grade point averages across the academy. This increase is attributed to reduced standards of grading rather than a bumper crop of significantly smarter, academically talented, hard working students.

- **The ongoing slippage of American universities on the international stage.** The United States currently ranks 12th in the world in relation to the number of 25-34 year olds with an Associate Degree or higher. Although there has been some progress in this area, the United States continues to fall behind other world countries in increasing the total number of college graduates (Lee and Rawls, 2011).
Embracing Rigor at the Course Level. As debates continue about the role of academic rigor in the academy, individual faculty members can engage in the process of assuring that the courses they teach embody high expectations, best practices in teaching and learning, and solid assessments of student performance. The following are some recommended approaches to this task:

- **Promote excellent student performance through carefully selected learning outcomes and assessments.** Great courses begin with well defined learning outcomes (i.e., Knowledge, skills, and dispositions that students are expected to learn through participating in a course or program). It is critically important for faculty members to know and define the destination of the semester’s journey (Gahagan, Dingfelder, & Pei, 2010).

- **Provide prompt feedback to students promptly and often.** If an assessment strategy has enough value to be a required experience for students enrolled in a course, then faculty should be expected to provide prompt and detailed feedback that will assist students in their learning. By knowing what they have done well, and where improvement is needed, students have the information necessary to improve and grow in relation the course-related learning outcomes.

We believe that the blended learning model addresses these two strategies and provides a means for reducing arguments about the prevalence of busy work and a lack of academic rigor. Consider, for example, that instead of being restricted to a specified number of classroom hours per week, we can create engaging online learning experiences that extend learning throughout the weeks that comprise a semester. This level of engagement is entirely achievable in a blended learning venue. Additionally, as we have described, in a blended learning format, faculty have enhanced opportunities to quantify student work levels through the submission of
course-related products (e.g., discussions, journals, wikis) that provide evidence of their engagement with course content.

**Postscript**

Our hope is that this conversation about blended learning has created a new level of interest in how this powerful format can be used to develop improved contexts for teaching and learning. Consider the possibilities of transforming one or more of your courses into a blended format. Hopefully you have discerned the level at which blended learning requires thoughtful planning and ongoing attention to learning outcomes. Additionally, the inclusion of an online component to your courses provides you with the opportunity to access a virtually endless array of digital tools and resources. Your efforts will offer continual benefits to your student.
References


# Appendix A
## Workload Estimates for Online Tasks:
### Estimated Times to Complete Assignments

<table>
<thead>
<tr>
<th>Activity/Assessment</th>
<th>Estimated Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technical Reading</strong></td>
<td>2 - 4 minutes per page. Average reading speed is 250 words per minute. Academic text usually average between 400-600 words per page. Reference works may be up to 1,000 words per page. If the text is particularly challenging you may want to factor in additional time as students will reread material.</td>
</tr>
<tr>
<td><strong>Descriptive Reading</strong></td>
<td>2 minutes per page. Average reading speed is 250 words per minute.</td>
</tr>
<tr>
<td><strong>Discussions</strong></td>
<td>90 – 120 minutes per discussion. This is calculated time a student will spend crafting an initial posting and making two meaningful responses.</td>
</tr>
<tr>
<td><strong>Case Study</strong></td>
<td>60 – 90 minutes per case. This includes reading the case and writing answers to case questions.</td>
</tr>
<tr>
<td><strong>Small Group Project</strong></td>
<td>120 – 240 minutes per project. This is time it takes for students to organize themselves and work together to complete the project. This does not include individual time for students to complete their part of the project.</td>
</tr>
<tr>
<td><strong>Group Final Project</strong></td>
<td>240 – 420 minutes per project. This is time it takes for students to organize themselves and work together to complete the project. This does not include individual time for students to complete their part of the project.</td>
</tr>
<tr>
<td><strong>Academic Writing</strong></td>
<td>30 - 60 minutes per page. This is the time spent writing and performing basic editing.</td>
</tr>
<tr>
<td><strong>Research</strong></td>
<td>Varies. Dependent on the type, amount, and depth of the assignment. At least 30 minutes per subject needing to be researched.</td>
</tr>
</tbody>
</table>

Most times above are estimated based on aggregated reports from online students. Every assignment has countless variables including the requirements of the assignments and the students in the course. This table is meant to provide a consistent manner to estimate time and nothing more.
Examples for Estimating Time

Discussion:

• Student will read 160 technical pages with an average of 500 words per page. = **320 minutes** (2 minutes for each technical page based on average words per minute)
  
  Student will then answer three questions in relation to the reading using critical thinking and at least one other referenced resource. = **60 minutes** (30 minutes to research subject, 30 minutes to write and edit what will most likely be about one page of academic writing)
  
  Student will read initial postings of classmates. = **30 minutes** (This assumes 2-3 minutes to read each post times the number of students in the course (This example is based on 10 students in the course)
  
  Finally, student will evaluate two other post and offer critical analysis of the work. = **60 minutes** (30 minutes of academic writing per response)
  
  Total = 470 minutes = 7:50 hours = **8 hours** (round to the nearest half hour)

Academic Paper:

• Student will be writing a paper on three main subjects. Each subject will require at least two resources. = **90 minutes** (30 minutes for each subject)
  
  Student will be writing a 4-5 page paper and students are mostly intermediate writers. = **225 minutes** (45 minutes per page, estimated for an intermediate writer)
  
  Total= 315 minutes = 5:15 hours = **5:30 hours** (round to nearest half hour)