

HYBRID VIGOR IN EDUCATION?

By Lora Hobbs

The blended course modality first caught my attention when I saw the title of a session that Dr. Karl Kunkel (Sociology, MSU) was conducting at an August Showcase in Teaching and Learning some years back. The title referred to something called a “hybrid” course. My only encounter with the idea of a “hybrid” was in my upbringing in a west-central Illinois farming family and my Ag classes in high school. In livestock production, producers select two pure breeds that each contain strengths that the other lacks. The goal is to produce offspring that accentuate the strengths of both breeds while minimizing whatever liabilities each breed may also bring. If the selection is right, the offspring demonstrate something called “hybrid vigor,” which means the offspring bring a better result than the two original breeds with regard to production, health and temperament.

I went to Karl’s session on his first attempt at a hybrid course with these livestock production parallels running through my mind. As I listened to Karl recount his experience and the research that might indicate vigor, I began considering two “pure breeds” that I had available to me. I had been teaching Introduction to Religion (REL 100) as a seated (face-to-face) class for several years. In recent years I had also begun teaching REL 100 as a fully distanced course (little or no face-to-face interaction). By the time I left Karl’s information-packed session, fuel for developing a blended version of REL 100 was pouring into me.

Later that fall, I attended the Sloan-C International Conference of Online/Asynchronous Learning in Orlando, Florida. As part of this conference, I attended an all-day workshop on hybrid (or blended) course development called “Mapping the Blend.” This process of mapping helps to identify what one hopes to accentuate from each original class (strengths) and what one hopes to minimize or eliminate (liabilities). Table 1 below shows the strengths and liabilities I identified in the seated and online modalities for REL 100. Looking diagonally across the table, one can see that the strengths of one class format respond directly to the liabilities of the other format. By the time I landed back in Springfield after the conference, I was fully fueled to go!

In the fall of 2009, I gave birth to (keeping with the hybrid production imagery) a blended version of REL 100. The class was scheduled as a Tuesday/Thursday class, and on Tuesdays, students met in the classroom as usual. However, the Thursday class meeting time was exchanged for online lecture and web-based media content that students could do at any time before our next Tuesday class meeting. At the first Tuesday meeting of the semester, as I explained the format to the somewhat surprised students (*We never have to go to class on Thursday???*), I promised never to lecture in our Tuesday meetings. The content of those face-to-face sessions would be Q&A, small group discussion and full class discussion and debate.

Table 1:

Course Format	Strengths	Liabilities
Seated / Fully Face-to-Face	<ul style="list-style-type: none"> + Face-to-Face engagement with students + Class discussion + Question and Answer over content + Easy to get to know the students (and for them to know me) 	<ul style="list-style-type: none"> - Students typically, do not come to class prepared. - I rarely cover all the intended course content for the semester. - having to sit through classes even if they are tired, pre-occupied (may not be in a “zone” for learning that day) - Work and family responsibilities often keep even the best students from attending at times.
Online / Fully Distance	<ul style="list-style-type: none"> + Students do more of the readings and class “prep” work since there is no division between in-class and out-of-class work. + The asynchronous nature is both convenient to schedule and conducive to choosing their best learning environment. + Students have choices in when, where and how to complete coursework. 	<ul style="list-style-type: none"> - no immediate Question and Answer format - no immediate interaction with classmates on course content - Most students still prefer face-to-face discussion, rather than the clunky nature of several students participating in online discussion (they tell me this!) - harder to get to know the students (and for them to get to know me)

Now that I’m teaching my third semester of the blended version of REL 100, I can say that the blended version does accentuate the strengths and minimize some (if not all) of the liabilities. Each semester I continue to “tweak” the course in response to what students tell me through our conversations, course evaluations, and the assessments that I regularly conduct through the Faculty Center for Teaching and Learning. What follows is a highlight of the results from those assessments.

ASSESSMENT RESULTS: During the fall 2009 and spring 2010 semesters, I ran the online assessment instrument in all three modalities of my REL 100 course. Therefore, I have been able to assess the blended course not only on its own terms but also in comparison to the other

two modalities. I will present what seems the most pertinent data gleaned from the research for potential blended course developers.

As seen in Table 2, students were very positive about the convenience to their schedules, as well as the conduciveness to their education, that the blended format offers. It should be noted that when asked about returning to a traditional seated class format (the last two questions), they generally preferred the blended format. From the student's perspective, more classes should be offered in this format.

Table 2:

Attraction and Convenience of the Blended Course Format Questions rated 1 (Strongly Disagree) to 5 (Strongly Agree)	Fall 2009 Means	Spring 2010 Means
The format of this hybrid course is conducive to my educational experience.	4.03	3.97
The format of this hybrid course is a format that is conducive to my schedule.	4.45	4.27
I would take another course that is based on this same hybrid format.	4.10	4.21
More courses should be offered in this hybrid format.	4.13	4.18
More lecture in our class meeting times would be helpful to me.	2.80	2.85
Coming to class twice a week, rather than replacing one class session with the video lectures, would be more productive for me.	2.19	2.72

Table 3 demonstrates how students indicated that they found class discussions during the weekly face-to-face meeting useful and generally of good quality. I think this is one of the challenges of the blended format. The face-to-face meeting cannot be lecture, or students will see those meetings as no different from the online content and will likely judge that those sessions should also be online. Quality educational content that is not lecture format is essential for these face-to-face meetings.

Table 3:

Class Experience Questions rated 1 (Strongly Disagree) to 5 (Strongly Agree)	Fall 2009 Means	Spring 2010 Means
The class discussions are a useful part of my learning experience.	4.14	4.00
The QUALITY of discussion that occurs in our class sessions exceeds that of other courses I have taken.	3.90	3.91
The AMOUNT of discussion that occurs in our class sessions exceeds that of other courses I have taken.	3.77	3.70

Self-Determination Theory (Deci, Ryan, 2000) asserts that a positive learning climate promotes student motivation. This theory has concluded that three ingredients must be evident in a learning climate that is conducive to student motivation. Those three ingredients are *autonomy* (sense of choice and control), *competence* (a sense that they can do the work and/or that they have the resources to do the work) and *relatedness* (a sense of connection to the instructor and to classmates). As Table 4 indicates, students in the spring seated and blended courses all had a good sense of these three ingredients. It should be noted that the blended course tended to exceed the seated course in all areas but relatedness, although these differences were not significant.

Table 4:

Basic Needs for Motivational Learning Climate Questions rated 1 (Strongly Disagree) to 7 (Strongly Agree)	Spring 2010 Blended Course	Spring 2010 Seated Course	Sign. Level
Learning Climate	5.87	5.75	n.s.
Autonomy	5.42	5.25	n.s.
Competence	5.21	5.11	n.s.
Relatedness	4.76	4.80	n.s.

Self-determination Theory presents intrinsic and extrinsic motivations in qualitatively different levels. Each form of motivation can be aligned on a continuum of self-determination. Results of empirical research have consistently shown that the first three levels, which are self-determined forms of motivation, are consistently associated with positive learning outcomes when attained; the three lower levels are non self-determined forms of motivation and are associated with negative learning outcomes. As can be seen in Table 5, the spring 2010 semester blended course exceeded my seated courses for all three forms of self-determined motivations, and this difference reached statistical significance for integration. The three non self-determined forms of motivation were quite comparable in the two modalities, although the difference for introjection almost reached statistical significance.

Table 5:

Motivational / Self-Regulation Means Questions rated 1 (Strongly Disagree) to 7 (Strongly Agree)	Spring 2010 Blended	Spring 2010 Seated	Sign. Level
Intrinsic (<i>I enjoy this!</i>)	5.08	4.78	n.s.
Integration (<i>This is relevant to me.</i>)	5.76	4.85	.004**
Identification (<i>I see that this is important.</i>)	5.50	5.14	n.s.
Introjection (<i>I am responding to guilt or internal pressure.</i>)	4.76	4.80	.080 [†]
External Regulation (<i>I have to do this – external pressure.</i>)	4.67	4.65	n.s.
Amotivation (<i>I don't know why I'm doing this!</i>)	1.74	1.57	n.s.

Table 6 shows a comparison of data from the first semester I taught the course in a blended format, the fall of 2009, and the spring 2010 blended courses. All intrinsic forms of motivation increased in the spring, and extrinsic levels of motivation decreased (except amotivation, which is comparable). These differences reached statistical significance for integration and introjection. I think it is likely I held the reins tighter during the first semester I taught the course, and that I may have loosened the reins some during the second semester, as I gained more comfort and confidence with the new course delivery format. The changes made contributed to an increase in students' level of self-determination in the course.

Table 6:

Motivational / Self-Regulation Means Questions rated 1 (Strongly Disagree) to 7 (Strongly Agree)	Fall 2009 Means Blended Course	Spring 2010 Means Blended Course	Sign. Level
Intrinsic (<i>I enjoy this!</i>)	4.50	5.08	.163
Integration (<i>This is relevant to me.</i>)	5.06	5.76	.021*
Identification (<i>I see that this is important.</i>)	5.04	5.50	.144
Introjection (<i>I am responding to guilt or internal pressure.</i>)	5.51	4.76	.057 [†]
External Regulation (<i>I have to do this – external pressure.</i>)	5.20	4.67	.135
Amotivation (<i>I don't know why I'm doing this!</i>)	1.69	1.74	.835

As noted in Table 7 below, students experienced a high level of autonomy in the blended course. Students have several options in relation to when, where and how to complete the coursework in the blended course. In conversations with students, they expressed their appreciation for this autonomy. What I find especially notable in this correlation table is that the high level of autonomy the students experienced in the blended course was also associated with their experience of competence in the course. My experience so far would indicate that in order to feel competent, students need good communication, not only in the class meeting, but also throughout the week. In addition, I think they need a clear plan of what is due when, as well as how to access what is due. I communicated through the syllabus, during the weekly class meeting, as well as through at least one group email each week and a posted announcement on BlackBoard each week.

Table 7:

Correlations of Basic Needs with Learning Climate		Learning Climate	Autonomy	Competence	Relatedness
Learning Climate	Pearson Corr.	1	.636**	.521*	.144
	Sig. (2-tail)		.001	.013	.523
Autonomy	Pearson Corr.	.636**	1	.778**	.372
	Sig. (2-tail)	.001		.000	.089
Competence	Pearson Corr.	.521*	.778**	1	.542**
	Sig. (2-tail)	.013	.000		.009
Relatedness	Pearson Corr.	.144	.372	.542**	1

Finally, Table 8 shows how in the fall 2009 semester, the percentage of A's was comparable between the two modalities. The significant differences occurred between B's and C's. It seems the seated course spread out the distribution more between A's, B's and C's. On the other hand, the hybrid course appears to have made a very clear cut between students earning A's and B's versus those earning C's and D's. In the rush of the end of spring semester we were not able to associate grades with the different modalities.

Table 8:

Fall 2009 Actual letter grade					
	A	B	C	D	F
Hybrid	9/29.1%	15/48.3%	5/16.1%	2/6.5%	0
Seated	17/28.3%	23/38.3%	7/28.3%	2/3.3%	1/1.6%

WHY MOVE TOWARD A BLENDED COURSE?

- Students come to class more prepared.
- Better discussions!
- Increase in quality of face-to-face engagement with instructor, class and content.
- Students have questions.
- Asynchronous nature gives students options of when, where and how to complete much of the course.
- Non-traditional students, who typically take online courses, like the blend of online with some instructor contact.
- More content is covered without compromising engagement.
- Students can process lecture portion at their own pace and method (and preferred learning time and environment).
- If classroom learning is active and directly tied to the online content, students can't just "show up" (I think of it as a similar format to a graduate seminar course).
- Research is showing higher levels of motivation (see chart that follows).
- Once most students try them, they like them and would like to take more (see chart that follows).
- Opens up new possibilities for classroom involvement for students.

WHO SHOULD TAKE A BLENDED COURSE?

- Non-traditional students.
- Students who are involved on campus or in the community (good mix of autonomy and engagement).
- Athletes who are good students.
- Students who struggle with keeping up with lecture note-taking in class.
- Students for whom English is not their first language.

- Ultimately, I've found the majority of my students like the format, perform as well as or better than they do in a seated course and want to take more classes in this format.

STUDENT COMMENTS:

Molly, a nursing student, enjoys the discussions and likes the fact that she can go over the pre-recorded lectures several times. (Springfield News-Leader)

Kristen, who studies administrative management: "You don't get bored. I think I learn better. You watch the lecture. You talk about it in class. You get to do the lecture twice." (Springfield News-Leader)

I thought that the hybrid way that the class was formatted was very innovative and I thought that it was a lot easier on my schedule to be able to do the 2nd day of class any time I wanted to. (Nick, FA 09)

I have never had a class in college that worked in groups as much as your class did, and it was really nice. I really enjoyed being able to hear other people's opinion on topics, and getting to know other people in the class. So many of the classes here on campus, ok most of them, are just so routinely taught. You come into the class and listen to your professor lecture for an hour or more. There usually isn't much interaction with the other students. So it was really nice to be able to come to a class that switched it up, where it was encouraged for you to discuss things with other students in the class. (Sheila, FA09)

I would like to thank you for teaching this course in a way that I could enjoy. Not only did I learn of other religions, but I discovered that I like the way this course was run (hybrid course). I would take a hybrid course again. (Lauren, FA09)

I really enjoyed the class... I like the semi-online component as well; I never felt like I was wasting time in class. I hope that I can find space in my schedule in the future to take other classes in this department. (Josh, FA09)

This class has challenged me to be more engaged in the classroom. I have always just been the student to sit there and not say much. But in this class with all of the group work, I have said my thoughts to the groups that I have been in. I think this will benefit me because now in other classes I know it is ok to speak up and talk. (MacKenzie, FA09)

References

Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and self-determination of behavior. *Psychological Inquiry*, *11*, 227-268.