
Rapid Development of Hybrid Courses for Distance Education: A Midwestern University's Pilot Project

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Abstract

A descriptive case study was used to explore how repurposing and a pedagogical-based instructional design model, the multimodal model (Picciano, 2009), were used to create quality distance education courses in a rapid development setting at a Midwestern land grant university. Data triangulation was used to secure data from faculty member interviews, course syllabi, and Desire to Learn (D2L) tours of the hybrid courses. From the research findings, the technique of repurposing did help faculty members develop hybrid courses in a rapid development setting. However, the multimodal model's (Picciano, 2009) implementation was less successful. Faculty members found this pedagogical-based model easy to use; but it was not used to its fullest potential. The hybrid courses developed in this case study exhibited faculty-driven content. These faculty-driven courses led to implementation problems and quality issues.

Introduction

Higher education institutions use hybrid courses to save money (Young, 2002), lower attrition rates (Jones, 2006; Young, 2002), improve the pedagogical quality of distance education's online courses (Segrave and Holt, 2003), and increase learner satisfaction (Simonson, Smaldino & Zvacek, 2009). Experts have defined hybrid courses as having "30% to 79%" of the learning occurring online (Simonson et al., 2009, p. 5) with the remaining parts of the class conducted face-to-face. Hybrid courses are a fairly new concept for distance and higher education. Hybrid courses are less than 10 years old (Picciano & Dziuban, 2007) and suffer from inconsistent research data (Picciano, 2009). The inconsistency found in the data can be contributed to a vague definition for hybrid courses, faculty members not labeling how they teach their classes, and college administration not keeping accurate records [statistics] (Picciano, 2009). To prevent repeating the online instructional design errors of the 1990s (Segrave and Holt, 2003), research on developing quality hybrid courses is needed.

Developing quality hybrid courses takes time and detailed planning. Faculty members with a limited time frame can use a rapid development process to assist them. A rapid development process shortens the development time frame, gets rid of unnecessary steps, and creates faster prototypes (Mayberry, 2004). "Repurposing" is a rapid development technique that adapts an approved course for another delivery method (Piskurich, 2009, p. 8). Repurposing can be achieved by using pedagogical frameworks and course syllabi from existing courses (Fulkerth, 2009). Kosak et al. (2004) discovered that 75% of the faculty in their research study taught their online courses in traditional classrooms before adapting them to online learning environments. If faculty members use only a course outline to develop hybrid courses, they will need to make numerous revisions (Piskurich, 2009). Making revisions takes more time and makes the development process "less rapid" (Piskurich, 2009, p. 63). Instructional design models created specifically for hybrid courses will help distance education staff and faculty members develop hybrid courses more efficiently.

Picciano (2009) created the multimodal model specifically for hybrid course development, and blends course objectives and activities with technology and teaching methods. The multimodal model (Picciano, 2009) covers content, social/emotional contexts, dialectic/questioning activities, synthesis/evaluation tools, collaboration/student-generated content, and reflection opportunities. Picciano (2009) believed a strong pedagogical framework would decrease the revisions needed for hybrid course development. This article will focus on how the multimodal model (Picciano, 2009) was used by faculty members to create hybrid courses in a rapid development setting for distance education at a Midwest university.

Research Setting

The multimodal model (Picciano, 2009) was created to help faculty members develop quality hybrid courses. To test the multimodal model (Picciano, 2009) in a rapid development setting, a descriptive case study was used. A small number of Midwest university faculty members, within the College of Education and Human Sciences, used their training on repurposing and the new multimodal model (Picciano, 2009) to create hybrid courses for the first time and in less than six months.

The faculty members who volunteered for the pilot project were offered training, university technological support, and a financial stipend if their hybrid courses were developed by August 2009. The researcher participated in the initial spring information and summer training seminars for the project. There were 10 faculty members that participated in the initial meeting and summer training seminars. The summer training consisted of historical background on online and hybrid courses, hybrid terminology, Sloan-C quality standards, the multimodal model, technology resources and tips, and time to develop a plan for a hybrid course that could be developed by the August deadline. The continuing education trainer encouraged faculty members to use only the parts of the multimodal model (Picciano, 2009) that made pedagogical sense for their class. Each faculty member presented his or her course plan as part of the final project for the summer training seminar. From the ten trained faculty members, six completed their hybrid courses by the August 2009 deadline. These six faculty members fit the criteria of first time developers and had unique perspectives and experiences that needed to be documented and described for future hybrid course development.

Research Questions

To effectively study the hybrid course development experiences of faculty members in this rapid development setting, three research questions were explored along with their related sub-category questions. The first research question and its sub-category questions were: How was the multimodal model (Picciano, 2009) used to develop hybrid courses for adult learners?

- A. What parts of the model did you use?
- B. What technology tools/programs did you use within your course?
- C. Describe any pedagogy or technology challenges you faced when developing your hybrid course.

The second research question explored for this case study along with its sub-category questions were: How did the rapid development technique of repurposing assist faculty members in producing quality hybrid courses?

- A. Using the original course to guide you, what types of activities needed to be changed or eliminated?
- B. What types of learning activities did you put online and what types of activities did you keep in the traditional classroom?
- C. Describe the teaching techniques you used to help students transition through the online and classroom components of the hybrid course.

The final research question and its related subcategory questions were: How did the rapid development of hybrid courses affect faculty members' perceptions of instructional design for distance education?

- A. What challenges did you face with this development deadline?
- B. How did using an existing course help or hinder your development efforts?
- C. Having taught the course, what revisions would you make to your hybrid course?
- D. What changes would you make to the multimodal model (Picciano, 2009)?

Research Process

The researcher secured initial permission to conduct research from the dean of the College of Education and Human Sciences, the coordinator of Continuing Education, and the university's IRB coordinator. An IRB process was also completed for the researcher's university and approval was granted. To obtain faculty member cooperation, a confidential email was sent to each of the six faculty members asking them to participate in a case study about the development process of their hybrid courses.

Upon receiving participation responses from faculty members, informed consent forms were secured and hour long one-on-one interviews were scheduled. The participating faculty member interviews were conducted at the main university campus and at the offices of each of the faculty members. Prior to conducting each of the interviews, the researcher briefly reviewed the informed consent form and described the purpose of the study with the faculty members. Faculty members were asked to reflect back on their training and development experiences and give suggestions for improving the multimodal model (Picciano, 2009).

During the interviews, a responsive interview protocol form was used. This form kept faculty members blind to the specific research questions, kept the interviews on track, and provided the “desired level of depth” needed for the responsive interviews (Rubin & Rubin, 2005, p. 129). The responsive interview protocol form was not pilot tested due to the general nature of responsive interviewing techniques and the small number of faculty members meeting the established criteria for the case study. The form contained the date and time of the interview, location, a brief synopsis of the research study, the interview probes, and adequate space to write faculty member responses (Creswell, 2008). To make the best use of faculty member time and to insure data accuracy, each faculty member interview was audio taped. To increase the validity and reliability of the data, data triangulation was used (Table 1). The researcher audio taped one-on-one interviews with faculty members, took hand written notes, requested copies of hybrid course syllabi, and asked for Desire2Learn (D2L) tours of their hybrid courses. A letter of the alphabet was assigned to each faculty member and documents containing traceable information were blackened out for confidentiality purposes. The audio taped interviews were transcribed, data pieces were analyzed, and themes were recorded on a Microsoft Excel spreadsheet for each faculty member.

Table 1. Data Triangulation Method

Research Questions	Responsive Interview Protocol Form	Course Syllabus	D2L Tour	Multimodal Model Diagram
1 – Model Used				
Parts used	x		x	x
Technology used	x		x	
Pedagogy/technology challenges	x		x	
2 – Repurposing				
Activities changed/eliminated	x	x	x	
Activities online/F2F	x	x	x	
Techniques to transition students	x	x	x	
3 – Design Perceptions				
Deadline challenge	x		x	
Using existing courses	x	x	x	
Hybrid revisions	x		x	x
Multimodal model changes	x			x

The data analysis process developed by Rubin and Rubin (2005) was utilized in this case study. Rubin and Rubin (2005) described the analysis process for reflective interviewing as recognizing data, clarifying, elaborating on concepts, coding, sorting, and creating a final synthesis of the data. The researcher repeated the analysis process until the data saturation point was reached (Creswell, 2008; Rubin & Rubin, 2005). Upon saturation, an independent rater was asked to review the data and verify themes to eliminate researcher bias. The independent rater has over 20 years of instructional design and related work experience, and is well published in the industry. The independent rater has trained adults to use technology for education and understands the hybrid concept.

Data Results

Participants for this research study came from the College of Education and Human Sciences. Faculty members are trained in the content and “pedagogy of their discipline,” and therefore teach with similar pedagogical frameworks (Shulman, 2004, p. 143). These similar disciplinary and pedagogical frameworks increased the reliability and validity of the results.

The research data revealed that faculty members did not use all of the parts of the multimodal model (Picciano, 2009). Student-generated content and reflection were not used to their fullest capacity. Faculty members focused mainly on content, social/emotional aspects of the hybrid course for their learners, and synthesis/evaluation tools. The faculty members did not face pedagogical or technological challenges in the development phase; however, the implementation phase posed challenges. Overall, none of the faculty members would change the multimodal model (Picciano, 2009).

The research also revealed that faculty members made few pedagogical changes to their original courses. Faculty members required learners to be responsible for learning text book content on their own. They also put lecture/content components online and created online tests. One faculty member utilized learning communities in the hybrid course. All of the faculty members used open communication techniques to solve learner problems. Two faculty members even offered technology advice to their learners.

Finally, the data revealed that two faculty members wanted more time to develop technological components for their hybrid courses. These two faculty members were on nine-month teaching contracts rather than 12 months. All of the faculty members felt their existing courses helped them develop their hybrid courses by the university deadline. When asked about course revisions, faculty members would include more details to facilitate course expectations. When teaching the hybrid course the following semester, one faculty member decreased the amount of learning activities and extra readings assigned to learners.

Themes revealed from this case study can be found in Table 2.

Table 2. Research Questions and Themes

Research Questions	Theme	Theme	Theme
1 – Model Used			
Parts	Used familiar pedagogical parts	Used 3 out of 6 model parts	
Technology	Used familiar technology tools	Selected new technology that was easy to use	
Pedagogy/technology challenges	None in development	Challenges in implementation	
2 – Repurposing			
Activities changed/eliminated	No significant changes	Added more reading activities	
Activities online/F2F	Applied hybrid criteria to original course	Required students to read text on own	Lecture notes and handouts online
Techniques to transition students	Open communication skills	Helped with technology concerns	
3 – Design Perceptions			
Deadline challenge	2/3 challenged	All had prior online experience	Repurposing helped meet deadline
Using existing courses	Applied model parts to existing course	All had prior experience with course	Guided by hybrid definition
Hybrid revisions	More details needed in course	Need help applying technology tools	Use less course activities
Multimodal model changes	No changes	Easy to use	Used only parts that fit class

Limitations of the Findings

This research study used a single, descriptive case study which limits the ability to generalize the results across different university settings. Moreover, the case study occurred in an environment of firsts making the results novel and unique to this university. The faculty member interviews occurred after implementation not during the development process. Faculty members had to recall information and their perceptions of the instructional design process. This lapse of time may have contaminated the research data positively or negatively.

Significance of the Findings

Hybrid courses are a fairly new instructional design concept in the field of distance and higher education. It takes time, skill, and a different pedagogical framework to create quality hybrid courses. In this case study, time was an issue for faculty members. Two-thirds of the faculty felt they needed more time to work with and develop the technology components for their hybrid courses. The independent rater for this research study (personal communication, May 11, 2010) suggested that the “compressed timeline” posed a development challenge for the faculty members; but that extra development time typically does not change the end results. From an instructional technology viewpoint, the independent rater suggested that people “tend to procrastinate and leave the bulk of the work to the end” (personal communication, May 11, 2010).

Conducting training alone will not provide faculty members with the skills they need to develop a quality hybrid course. To the dismay of one of the faculty members in this case study, blending face-to-face and online learning environments was not an easy task; and the faculty member and the learners suffered. According to the independent rater, hybrid courses “require a great deal of up-front planning” (personal communication, May 11, 2010). Teaching hybrid courses are “more complicated and multifaceted” than teaching in online or traditional classrooms (Bonk et al., 2006, p. 564). Teaching in a traditional classroom or purely online does not prepare faculty members for developing and teaching hybrid courses.

In this case study, faculty members had less than six months to develop their hybrid courses. Kaleta, Garnham, and Aycocock (2005) noted faculty members’ discomfort with change and perceived lack of time are reasons why faculty do not incorporate hybrid courses into their teaching repertoire. Faculty members in this case study chose technology they were comfortable or familiar with rather than learning something new. This is an acceptable response in a rapid development time frame and is not entirely unrealistic; however, these faculty members did attend free technology classes on campus. Initially, the researcher thought the training and the multimodal model (Picciano, 2009), would make it easier for faculty members to stretch their comfort level and allow them to create quality hybrid courses. The multimodal model (Picciano, 2009) was designed for educator use, and was pedagogically and technologically user friendly. The training and instructional design model, however, did not influence the overall design of faculty members’ hybrid courses. Faculty members’ pedagogical frameworks and the act of repurposing existing courses did influence the design of their hybrid courses. The courses in the case study contained faculty-driven rather than student-generated content, as was suggested by Picciano (2009) as part of the design of the multimodal model.

To develop quality hybrid courses that are cost effective, the faculty-driven teaching paradigm needs to change. Faculty-driven content is the traditional pedagogical framework found in higher education. Locker (2009) suggested that pedagogical frameworks need to be explored throughout the entire university system. Using old pedagogical frameworks with technology tools occurred in this case study and in the research literature (Verkroost, Meijerink, Lintsen & Veen, 2008). Faculty members used disciplinary content and pedagogical frameworks, or their educational belief system, rather than the instructional design model to construct their hybrid courses. Faculty members used parts of the multimodal model (Picciano, 2009) that matched their pedagogical frameworks. The multimodal model (Picciano, 2009) is a pedagogically-based instructional design model that was developed to help faculty members create quality hybrid courses. In this research study, faculty members used the online portion of their hybrid courses to save time rather than create quality courses that contain enhanced or transformational learning experiences (Graham, 2006).

New Hybrid Instructional Design Model

Based on this research study, the multimodal model (Picciano, 2009) needs to be adjusted to create pedagogical change. Putting the student-generated content in the middle of the instructional design model will create a visual need for change. This centralized location will prevent faculty members from skipping or ignoring this necessary component. Faculty members in this study also merged several parts of the multimodal model (Picciano, 2009) together to create learning experiences. These mergers should also be reflected in the instructional design model. Figure 1 displays a visual concept of the changes that need to be made to the multimodal model (Picciano, 2009) based on its use in this descriptive case study. These revisions create a new instructional design model for developing hybrid courses suited for distance education.

The Learner-Driven Learning (LDL) Hybrid Model (Rust, 2010) affirms that faculty members are still a pertinent part in the learning process, but that their roles have changed from content experts to facilitators. Palloff and Pratt (1999; 2005) encourage faculty members to be learning facilitators, and offer advice on how to make the transition from content experts to facilitators. Faculty members would be able to facilitate problem-based, experiential and constructivist learning experiences for their learners. Moreover, learning that involves solving real life problems challenges adult learners and creates interest in the course.

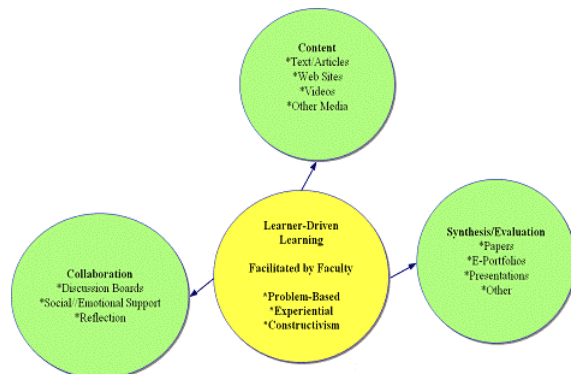


Figure 1. The Learner-Driven Learning (LDL) Hybrid Model (Rust, 2010). Model designed to resolve two concerns within this descriptive case study: faculty members’ use of the multimodal model (Picciano, 2009) and quality issues.

Recommendations for Further Research

A closer examination of the types of revisions faculty members make to their hybrid courses over time would be financially valuable information for distance education administrators. Discovering what types of revisions and technology changes are being made to hybrid courses, being able to identify reoccurring design problems, and finding solutions to design and development issues are extremely important to distance education. The multimodal model (Picciano, 2009) should also be compared using regular and rapid development time frames to decipher if the rapid development setting, in this case study, really created the quality problems. Finally, discovering to what extent pedagogical frameworks are helping or hindering the development of quality hybrid courses is paramount.

Conclusion

To work smarter not harder, higher education’s faculty-driven pedagogical framework needs to be challenged and changed to create quality distance education opportunities. Content and technology tools are continually evolving; and this makes developing faculty-driven courses more labor intensive and cost prohibitive. In learner-driven hybrid courses, the faculty members serve as facilitators; and the course content and related activities would remain structurally consistent, while offering customized learning opportunities for adult learners. An instructional design model like the LDL hybrid model (Rust, 2010) will create meaningful learning experiences for adults and increase the quality of hybrid courses. Hands-on training addressing the pedagogical and technological challenges found in hybrid course development and implementation will help faculty members and distance education administrators work smarter not harder.

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