What Do They Need?
Intrinsic Motivation and Online Leadership Learning

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Abstract

Online and hybrid classes have become common in the fields of leadership education. The pressure to implement these delivery models comes from both students and institutions. It is essential to ensure that these models meet student learning needs as well as the increased demand. This action research study uses survey data from three sections of students (two hybrid, one face-to-face) in an educational leadership program to evaluate their levels of intrinsic motivation as it relates to the delivery model of classes. Key findings include the need to provide students with choice about the delivery model, the need to establish a sense of community within all delivery models, and the fact that instructors and administrators must acknowledge the increased pressure and tension that may be factors in the learning of students experiencing new paradigms of learning.

Introduction

Educational psychology, developmental research, and the fields of teaching and learning have vastly increased our knowledge about what students at different levels need to learn effectively. For new knowledge to take hold, it needs to be relevant, connect theory to practice, and stimulate the intrinsic motivation of students. Teachers and programs have learned how to do this effectively in traditional modes of instruction, but there has become an increasing need to figure out how to do this in alternative models of instruction.

At many institutions pressures exist for programs in leadership and administration to move away from "traditional" (i.e., face-to-face) instruction toward instruction supported by technology and delivered via distance models. These alternative models of delivery include online instruction, video-enhanced, or a hybrid model that integrates online instruction with traditional face-to-face meetings.

The encouragement to move toward alternative models of instruction comes from a variety of sources. Institutions which rely on these programs for enrollment and

revenue may view the increased competition from online programs as a threat. Indeed, a cursory web search reveals over 170 institutions of higher learning offer degrees or certification in leadership via distance models (http://programs.gradschools.com/distance/leadership.html). Students also increasingly expect more flexibility in their scheduling and ability to meet the degree requirements. To some extent that encouragement has been echoed on a federal level by the Web-Based Education Commission (2000) in their call to action towards policy, growth, and equitable access to technology.

Although such factors as financial gain, students' expectations of ease, and national push may not be persuasive in and of themselves to compel programs to move to a completely alternate model of delivery, they have certainly contributed to the need for faculty members and program administrators to examine the possibility of converting their programs. Many institutions have begun to ask leadership programs to offer courses using partial or complete distance models. It is important to consider, then, whether student needs are actually being met. The models contribute to the extrinsic motivating factors of flexibility and increased time. However, the question of whether they contribute to aspects of intrinsic motivation for learning remains.

Theoretical Framework

Student Needs

In the field of educational leadership typical students work full time as teachers or other educational professionals, and strive to balance extracurricular, work, school, and family commitments. This balancing act can preclude a sense of community within graduate courses as students tend to come to campus one or two evenings a week. As a result, many programs have gone to models that use cohorts of students who take courses together or site-based programs delivered at schools or within districts. Educational leadership programs also are geared to meet the Educational Leadership Constituent Council (ELCC) standards set by the National Policy Board for Educational Administration (2002) and have a strong focus on the outcomes of student learning.

These characteristics of educational leadership students also fit descriptions of typical demographics of distance learning students (Qureshi, Morton, & Antosz, 2002). Both groups are mature, experienced, have competing interests, and are motivated. As such, the fit between a leadership program and distance education is an apt one. Remaining questions about both groups focus on whether learning needs are met by distance education or merely logistical ones.

Distance Education

Literature on what is effective in distance education delivery formats includes both standards for best practice and research on the impact of online learning for student success as measured by achievement, learning preferences, and student perceptions as well as other variables. A review of research prior to 2000 revealed several significant gaps in the knowledge base about distance learning in higher education, including accounting for student learning styles and other student differences (IHEP, 1999). Although research on learning styles has been done since that time (e.g., Aragon, Johnson & Shaik, 2002; Neuhauser, 2002), differentiated instruction for individual learning styles remains as challenging for online instruction as for face-to-face.

The Institute for Higher Education Policy (2000) has established multiple sets of benchmarks for setting up online learning experiences. These benchmarks were derived based on student achievement measures, interviews, and other data from institutions that have led the charge in delivering online programs. The benchmarks include institutional recommendations such as having a clear technology plan and centralized infrastructure, instructional recommendations for instructors, including setting up deliberate interactions between faculty and students and setting guidelines for student engagement, and support system recommendations such as providing adequate access to student information and library services. Of these, the most useful to the individual faculty member are those that are included under course development, teaching/learning, and course structure benchmarks.

A review of web-based learning modules led Janicki and Liegle (2001) to suggest 10 concepts supportive of effective design in web-based instruction including instructional goals, such as giving hands-on problems and clear feedback, and technical goals, like consistent layout and help screens. Hacker & Neiderhauser (2000) also focused on pedagogy. Their recommendations include active participation in learning, effective use of examples, and integrating components linked to motivation.

Student Learning in Distance Formats

Along with recommendations for instructional design, the effectiveness of alternative delivery formats has been examined as well. Various studies have explored the effectiveness of using data about student perceptions, interaction, evidence of learning styles or preferences, and achievement data.

Student perception studies have taken different foci. Song, et al. (2004) studied students' points of view regarding the useful and challenging traits of online classes. Helpful components included clear course design, technological comfort,

and time management. In the study, 62% of students said that their own motivation affected the success of online classes. Conrad's (2002) study of student learning found that learners' impression of their engagement was more dependent on their connection with material than with other students or instructors.

The importance of social interaction to learning has been much deliberated in the literature on distance education, often referred to as "learning communities" (Swan, 2002) or "communities of practice" (Johnson, 2001). Although there seems to be consistency in recognizing the critical role of interaction with peers and instructors, there has been some debate on how and whether it is effectively created. In fact, Johnson suggests, "the best one can do is to set up a design … and hope the emerging community of practice can achieve its goals of learning and growth within and around it" (p. 53). Swan (2002) found that online discussion includes more indicators of verbal immediacy than face-to-face conversations, signifying affective engagement, development of community, and interpersonal interactions. A content analysis of student discourse in an online discussion done by Thomas (2002), however, suggested that authentic conversation is not replicated in online discussions. Picciano's (2002) study of interaction in educational leadership online classes included both student-reported perceptions of the importance of interaction to achievement and actual data about their contributions to an online discussion. The results revealed that students believed interaction was more important to their learning than it actually was. This question of how important interaction actually is, and whether distance learning can achieve it, remains open.

Various studies have attempted to answer the question of whether online learning is more appropriate for some learning styles or preferences than others. The existing body of knowledge shows that there does not seem to be significant differences between learning preferences and styles and grades in online classes as opposed to traditional face-to-face classes (Aragon, Johnson, & Shaik, 2002; Neuhauser, 2002).

There have been hundreds of studies which have shown that student achievement does not vary according to delivery format. Thomas Russell's website (http://nosignificantdifference.wcet.info/index.asp), No Significant Difference, compiles those studies to show the preponderance of evidence available regarding student learning. These studies include a focus on a variety of different factors including lecture style, gender, and discussion (Arbaugh, 2000; Neuhauser, 2002; Smeaton & Keogh, 1999).

Although educational leadership is a field in which distance delivery has become commonplace, few studies have focused on students in these programs. For one example see Picciano (2002). In many ways, the needs and characteristics of

typical students in leadership education are a natural fit to distance education. Whether those needs are met, however, needs careful attention.

Intrinsic Motivation

A key aspect to be considered is the role of intrinsic motivation in student learning. When students are intrinsically motivated, they are more likely to be engaged in their learning and also to achieve high standards. Intrinsic motivation includes several components, which can be evaluated by seeking student perceptions. Namely, these components are interest/enjoyment, value/usefulness, perceived choice, perceived competence, pressure/tension, effort, and relatedness (Deci & Ryan, 2007).

Interest and enjoyment are most closely related to intrinsic motivation, in that individuals are more likely to want to engage in activities they have enjoyed or in which they have interest. Value or usefulness is similar in that respondents will be motivated to engage in tasks that are perceived to have value for their future. Perceived choice and perceived competence are behavioral measures of motivation. If respondents want to do something and feel as if they will be successful, they are likely to be motivated during the task.

Pressure or tension, on the other hand, is a negative indicator for motivation. When respondents are apprehensive, they are less motivated. Effort is related to, but not directly predictive of, intrinsic motivation. Rather, the construct informs a respondent's likelihood of exhibiting behaviors that demonstrate motivation. Finally, the variable of relatedness is connected to motivation in terms of the value of interpersonal interactions (Deci & Ryan, 2007).

Purpose/Question

In this action research study the perceptions of three sections of students in an educational leadership program were investigated to gain insight into the question: How does delivery model affect leadership students' perception of motivational components of learning as related to content and method? Ninety students were surveyed at the beginning and end of a semester-long course as to their motivation related to the content of the course and the delivery format.

Methodology

Data Sources

Pre-and post-surveys were given to three classes of masters degree students in Educational Leadership. Surveys had 33 Likert response items based on the

Intrinsic Motivation Inventory (IMI) (Deci & Ryan, 2007) to gain information on six variables linked to motivation and learning (see Table 1). The items were designed to assess students' perceptions about the content of the class as well as the delivery format regarding six of the seven variables on the IMI including perceived choice, perceived competence, effort, interest/enjoyment, pressure/tension, and value/usefulness. Although relatedness is also included as a variable on the IMI, no items for that construct were included on the pre- and post-surveys as closed questions.

Each item on the survey had parallel construction to examine students' perceptions as it pertained to the delivery (hybrid or face-to-face) and content matter. For example, an item to assess student perception of the value or importance of the class would be asked in two ways: (a) I feel Supervision will be useful for my future as a school leader, and (b) I feel a (face-to-face/hybrid) class will be useful to my future as a school leader. The surveys also contained open-ended response items for students to provide additional perceptions about the course content and delivery. These open-ended questions were designed to elicit the opinions and emotions of students.

Table 1
Survey Questions

PERCEIVED CHOICE

I believe I had some choice about a (face-to-face/hybrid) course
I believe I had some choice about doing Supervision
I completed a (face-to-face/hybrid) course because I had to
I completed Supervision because I had to
I put my skills to use in order to complete a (face-to-face/hybrid) course
I put my skills to use in order to complete Supervision
PERCEIVED COMPETENCE
I am satisfied with my performance in a (face-to-face/hybrid) course
I am satisfied with my performance in Supervision
I believe my achievement has been higher than the majority of my peers
I had the necessary skills to succeed in a (face-to-face/hybrid) course
I had the necessary skills to succeed at Supervision
I did not do very well in a (face-to face/hybrid) course
Supervision is a course that I did not do very well in
EFFORT
I put a great deal of effort into completing the assignments and projects in a (face-to-face/hybrid) course
I put a great deal of effort into completing the assignments and projects for Supervision
It was important for me to do well in a (face-to-face/hybrid) course
It was important for me to do well in Supervision

INTEREST/ENJOYMENT
I greatly enjoyed learning in a (face-to-face/hybrid) course
I greatly enjoyed learning about Supervision
I think learning in a (face-to-face/hybrid) course was very interesting
Supervision was very interesting
Learning in a (face-to-face/hybrid) course did not hold my attention
Learning about supervision did not hold my attention
PRESSURE/TENSION
I felt very tense in a (face-to-face/hybrid) course
I felt very tense while doing Supervision
I felt very relaxed while in a (face-to-face/hybrid) course
I was very relaxed while doing Supervision
VALUE/USEFULNESS
I feel a (face-to-face/hybrid) course was useful for my future as a school leader.
I feel Supervision was useful for my future as a school leader.
I think a (face-to-face/hybrid) course was of great value for me
I think Supervision was of great value for me

Note: All items are from post-course survey; pre-course survey items were constructed using future tense.

Participants

Each of the three classes had approximately 30 master's degree students enrolled. Most students were practicing teachers in local school districts. The class, Differentiated Supervision, is a requirement for students who are enrolled in the Educational Leadership master's degree program or are pursuing Administrative or Supervisory certification. Each semester a small number of students enroll in the class as an elective.

Differentiated Supervision focuses on supervisory skills for school leaders, including clinical supervision, professional development, and hiring and terminating personnel. Key assessments in the class include a field observation of at least two teachers, midterm and final exams, and planning a faculty meeting to introduce a professional development program. Student engagement is promoted in both the face-to-face and hybrid sections through in-depth analysis of open-ended cases and small group collaboration.

Procedures

In spring, 2007, two sections of the course were offered. One was a traditional face-to-face class and the other was a hybrid class which met in person a total of five times in the semester. An additional section of the class was offered in the summer semester. The summer section of the course had nine face-to-face contact

hours at the beginning of the semester and an additional nine at the end. All other instruction for the hybrid sections was completed using the Blackboard platform. It should be noted that all three sections used technology as instructional support, but two were specifically designated as "hybrid." All instructional materials and assignments were consistent across sections. The participants signed consent forms at the beginning of the semester, agreeing to let both the surveys and their assignments be used for research purposes. The consent process was facilitated by a research assistant. The instructor of the course did not know which students had given permission for their participation until after final grades had been submitted.

To gauge students' starting points in terms of intrinsic motivation as it related to the course they were about to take, the pre-course survey was administered as early as possible. For 90% of the students responding to an e-mail prompt, the survey was completed before the course meeting. The comparisons across the three courses showed where students started with differing perspectives about the course content and delivery. Each item was analyzed with SPSS software using the non-parametric Chi Square test. Refer to Table 2 for statistics noting significance at the .05 level. Tables 3, 4, and 5 contain means and standard deviations. Scores for students in the hybrid courses were compared to the scores of students in the face-to-face course.

Table 2
Pre-Course X^2 Comparisons

PERCEIVED CHOICE	X^2	sig	df
I believe I will have some choice about a (face-to-face/hybrid) course	4.482	0.034*	1
I believe I will have some choice about doing Supervision	2.319	0.128	1
I will complete a (face-to-face/hybrid) course because I have to	0.679	0.41	1
I will complete Supervision because I have to	0.009	0.025*	1
I will put my skills to use in order to complete a (face-to-face/hybrid) course	1.185	0.276	1
I will put my skills to use in order to complete Supervision	0.308	0.579	1
PERCEIVED COMPETENCE			
I will be satisfied with my performance in a (face-to-face/hybrid) course	0.292	0.589	1
I will be satisfied with my performance in Supervision	0.548	0.459	1
I believe my achievement will be higher than the majority of my peers	0.108	0.743	1
I believe I have the necessary skills to succeed in a (face-to-face/hybrid) course	3.021	0.082	1

I believe I have the necessary skills to succeed at Supervision	0.398	0.528	1
I will not do very well in a (face-to face/hybrid) course	0.405	0.525	1
Supervision is a course that I will not do very well in	0.302	0.583	1
EFFORT			
I will put a great deal of effort into completing the assignments and projects in a (face-to-face/hybrid) course	0.001	0.973	1
I will put a great deal of effort into completing the assignments and projects for Supervision	0.479	0.489	1
It is important for me to do well in a (face-to-face/hybrid) course	0.008	0.927	1
It is important for me to do well in Supervision	0.424	0.515	1
INTEREST/ENJOYMENT			
I will greatly enjoy learning in a (face-to-face/hybrid) course	5.863	0.015*	1
I will greatly enjoy learning about Supervision	0.015	0.902	1
I think learning in a (face-to-face/hybrid) course will be very interesting	0.312	0.577	1
Supervision will be very interesting	3.239	0.072	1
Learning in a (face-to-face/hybrid) course will not hold my attention	1.15	0.284	1
Learning about supervision will not hold my attention	0.58	0.446	1
PRESSURE/TENSION			
I will feel very tense in a (face-to-face/hybrid) course	10.595	0.001*	1
I will feel very tense while doing Supervision	4.96	0.026*	1
I will feel very relaxed while in a (face-to-face/hybrid) course	12.516	0*	1
I will be very relaxed while doing Supervision	6.945	0.008*	1
VALUE/USEFULNESS			
I feel a (face-to-face/hybrid) course will be useful for my future as a school leader.	1.733	0.188	1
I feel Supervision will be useful for my future as a school leader.	0.046	0.83	1
I think a (face-to-face/hybrid) course will be of great value for me	0.349	0.554	1
I think Supervision will be of great value for me	0.194	0.66	1

Note: = significant at the .05 level.

After the last class meeting, all students took a parallel survey to report their impressions of the class. Only one student did not complete the survey, yielding a 99% return rate. These data were analyzed in two ways. First, the results from the pre-course survey were compared to the post-course results using *t*-tests (see

Tables 3, 4, and 5). Each section was analyzed separately, comparing only the pre-course response to post-course response for individual items completed by the same group of students.

Table 3
Spring Face-to-Face Pre-Post Comparison

	Pre		Post				
PERCEIVED CHOICE	Mean	SD	Mean	SD	T test	signif	df
I believe I had some choice about a hybrid course	2.37	0.90	2.32	1.24	0.2	0.84	58
I believe I had some choice about doing Supervision	1.89	1.14	2.41	1.50	-1.51	0.13	58
I completed a hybrid course because I had to	2.96	1.84	3.80	1.79	-1.79	0.07	58
I completed Supervision because I had to	2.82	1.85	3.03	1.85	-0.428	0.67	58
I put my skills to use in order to complete a hybrid course	1.48	0.50	1.48	0.62	-0.008	0.99	58
I put my skills to use in order to complete Supervision	1.37	0.62	1.41	0.62	-0.25	0.80	58
PERCEIVED COMPETENCE							
I am satisfied with my performance in a hybrid course	1.55	0.63	1.51	0.56	0.229	0.81	58
I am satisfied with my performance in Supervision	1.51	0.63	1.70	0.64	-1.167	0.24	58
I believe my achievement has been higher than the majority of my peers	2.75	1.27	2.80	0.98	-0.164	0.87	58
I had the necessary skills to succeed in a hybrid course	1.27	0.52	1.32	0.47	-0.361	0.72	58
I had the necessary skills to succeed at Supervision	1.58	1.01	1.70	0.64	-0.566	4.57	58
I did not do very well in a hybrid course	1.24	0.83	1.38	0.80	-0.691	0.49	58
Supervision is an course that I did not do very well in	1.62	1.42	1.61	1.02	0.024	0.98	58
EFFORT							
I put a great deal of effort into completing the assignments and projects in a hybrid course	1.13	0.44	1.35	0.60	-1.572	0.12	58
I put a great deal of effort into completing the assignments and projects for Supervision	1.17	0.46	1.22	0.49	-0.427	0.67	58
It was important for me to do well in a hybrid course	1.34	0.89	1.35	0.55	-0.052	0.95	58
It was important for me to do well in Supervision	1.13	0.51	1.12	0.34	0.079	0.93	58
INTEREST/ENJOYMENT							
I greatly enjoyed learning in a hybrid course	1.48	0.57	1.51	0.62	-0.215	0.83	58
I greatly enjoyed learning about Supervision	1.58	0.94	1.48	0.56	0.512	0.61	58
I think learning in a hybrid course was very interesting	1.44	0.63	1.58	0.50	-0.902	0.37	58
Supervision was very interesting	1.55	0.68	1.61	0.55	-0.38	0.70	58
Learning in a hybrid course did not hold my attention	1.62	1.23	1.45	0.67	0.663	0.5	58
Learning about supervision did not hold my attention	1.62	1.11	1.64	0.95	-0.092	0.92	58
PRESSURE/TENSION							
I felt very tense in a hybrid course	5.10	1.29	5.25	1.26	-0.469	0.54	58
I felt very tense while doing Supervision	4.82	1.28	4.80	1.27	0.064	0.94	58
I felt very relaxed while in a hybrid course	5.00	1.13	5.35	0.66	-1.493	0.14	58
I was very relaxed while doing Supervision	4.68	1.13	4.93	0.67	-1.024	0.31	58
VALUE/USEFULNESS							
I feel a hybrid course was useful for my future as a school leader.	1.44	0.73	1.38	0.61	0.35	0.72	58
I feel Supervision was useful for my future as a school leader.	1.17	0.53	1.19	0.40	-0.173	0.86	58
I think a hybrid course was of great value for me	1.48	0.73	1.35	0.48	0.798	0.42	58
I think Supervision was of great value for me	1.27	0.64	1.22	0.42	0.356	0.72	58

Note: * = significant at the .05 level

Table 4
Spring Hybrid Pre-Post Comparison

	Pre		Post				
PERCEIVED CHOICE	Mean	SD	Mean	SD	T test	signif	df
I believe I had some choice about a hybrid course	2.03	0.94	1.60	1.03	1.633	0.10	55
I believe I had some choice about doing Supervision	2.24	1.37	2.67	2.00	-0.963	0.34	55
I completed a hybrid course because I had to	3.48	2.02	3.67	1.98	-0.368	0.71	55
I completed Supervision because I had to	2.79	1.80	2.42	1.79	0.766	0.44	55
I put my skills to use in order to complete a hybrid course	1.41	0.68	1.46	1.07	-0.213	0.83	55
I put my skills to use in order to complete Supervision	1.37	0.49	1.32	0.54	0.419	0.67	55
PERCEIVED COMPETENCE							
I am satisfied with my performance in a hybrid course	1.68	0.66	1.32	0.66	2.09	0.04*	55
I am satisfied with my performance in Supervision	1.48	0.78	1.46	0.79	0.088	0.93	55
I believe my achievement has been higher than the majority of my peers	2.72	0.95	2.64	1.25	0.275	0.78	55
I had the necessary skills to succeed in a hybrid course	1.58	0.62	1.32	0.81	1.373	0.17	55
I had the necessary skills to succeed at Supervision	1.48	0.78	1.53	0.83	-0.246	0.80	55
I did not do very well in a hybrid course	1.27	0.59	1.28	0.59	-0.062	0.95	55
Supervision is an course that I did not do very well in	1.13	0.44	1.39	1.13	-1.126	0.26	55
EFFORT							
I put a great deal of effort into completing the assignments and projects in a hybrid course	1.20	0.41	1.03	0.42	1.537	0.13	55
I put a great deal of effort into completing the assignments and projects for Supervision	1.17	0.46	1.14	0.65	0.197	0.84	55
It was important for me to do well in a hybrid course	1.31	0.60	1.21	0.68	0.562	0.57	55
It was important for me to do well in Supervision	1.13	0.44	1.10	0.56	0.229	0.81	55
INTEREST/ENJOYMENT							
I greatly enjoyed learning in a hybrid course	2.10	0.85	1.67	1.15	1.578	0.12	55
I greatly enjoyed learning about Supervision	1.65	0.66	1.50	0.92	0.728	0.46	55
I think learning in a hybrid course was very interesting	1.79	0.94	1.60	0.83	0.79	0.43	55
Supervision was very interesting	1.34	0.55	1.60	1.10	-1.144	0.25	55
Learning in a hybrid course did not hold my attention	1.86	0.87	1.71	1.24	0.52	0.60	55
Learning about supervision did not hold my attention	1.48	0.68	1.78	1.42	-1.029	0.30	55
PRESSURE/TENSION							
I felt very tense in a hybrid course	4.58	1.08	3.89	1.68	1.853	0.06	55
I felt very tense while doing Supervision	4.44	1.37	4.03	1.55	1.062	0.29	55
I felt very relaxed while in a hybrid course	4.17	1.28	4.14	1.50	0.08	0.93	55
I was very relaxed while doing Supervision	4.24	1.02	3.78	1.57	1.302	0.19	55
VALUE/USEFULNESS							
I feel a hybrid course was useful for my future as a school leader.	1.75	0.83	1.39	0.78	1.707	0.09	55
I feel Supervision was useful for my future as a school leader.	1.13	0.35	1.46	0.92	-1.777	0.08	55
I think a hybrid course was of great value for me	1.58	0.82	1.46	0.83	0.554	0.58	55
I think Supervision was of great value for me	1.17	0.38	1.42	0.99	-1.288	0.20	55

Note: * = significant at the .05 level

Table 5
Summer Hybrid Pre-Post Comparison

	Pre		Post				
PERCEIVED CHOICE	Mean	SD	Mean	SD	T test	signif	df
I believe I had some choice about a hybrid course	1.85	0.97	1.86	0.89	-0.039	0.96	56
I believe I had some choice about doing Supervision	2.46	1.45	2.66	1.76	-0.474	0.63	56
I completed a hybrid course because I had to	3.10	1.66	3.20	1.68	-0.211	0.83	56
I completed Supervision because I had to	2.82	1.76	2.53	1.47	0.675	0.50	56
I put my skills to use in order to complete a hybrid course	1.35	0.62	1.06	0.44	2.049	0.04*	56
I put my skills to use in order to complete Supervision	1.21	0.49	1.16	0.53	0.352	0.72	56
PERCEIVED COMPETENCE							
I am satisfied with my performance in a hybrid course	1.32	0.47	1.40	0.56	-0.572	0.57	56
I am satisfied with my performance in Supervision	1.39	0.56	1.46	0.68	-0.447	0.65	56
I believe my achievement has been higher than the majority of my peers	2.32	0.90	2.63	1.32	-1.039	0.30	56
I had the necessary skills to succeed in a hybrid course	1.46	0.63	1.23	0.50	1.536	0.13	56
I had the necessary skills to succeed at Supervision	1.28	0.53	1.50	0.73	-1.267	0.21	56
I did not do very well in a hybrid course	1.42	1.03	1.43	0.67	-0.021	0.98	56
Supervision is an course that I did not do very well in	1.28	0.65	1.43	1.00	-0.656	0.51	56
EFFORT							
I put a great deal of effort into completing the assignments and projects in a hybrid course	1.10	0.49	1.10	0.48	0.056	0.95	56
I put a great deal of effort into completing the assignments and projects for Supervision	1.10	0.49	1.06	0.44	0.325	0.74	56
It was important for me to do well in a hybrid course	1.21	0.56	1.43	0.93	-1.069	0.29	56
It was important for me to do well in Supervision	1.21	0.49	1.16	0.46	0.378	0.70	56
INTEREST/ENJOYMENT							
I greatly enjoyed learning in a hybrid course	1.78	0.83	1.70	0.74	0.413	0.68	56
I greatly enjoyed learning about Supervision	1.35	0.62	1.36	0.71	-0.54	0.95	56
I think learning in a hybrid course was very interesting	1.42	0.69	1.66	1.06	-1.005	0.31	56
Supervision was very interesting	1.28	0.59	1.30	0.79	-0.077	0.93	56
Learning in a hybrid course did not hold my attention	1.57	0.95	1.43	0.85	0.578	0.56	56
Learning about supervision did not hold my attention	1.32	0.77	1.33	0.84	-0.56	0.95	56
PRESSURE/TENSION							
I felt very tense in a hybrid course	3.92	1.53	3.63	1.60	0.714	0.47	56
I felt very tense while doing Supervision	3.96	1.42	3.23	1.47	1.914	0.06	56
I felt very relaxed while in a hybrid course	4.14	1.35	3.73	1.61	1.042	0.30	56
I was very relaxed while doing Supervision	3.82	1.41	3.40	1.58	1.064	0.29	56
VALUE/USEFULNESS							
I feel a hybrid course was useful for my future as a school leader.	1.57	0.83	1.66	1.02	-0.385	0.70	56
I feel Supervision was useful for my future as a school leader.	1.14	0.52	1.13	0.50	0.07	0.94	56
I think a hybrid course was of great value for me	1.64	0.82	1.56	1.04	0.307	0.76	56
I think Supervision was of great value for me	1.21	0.56	1.30	0.70	-0.509	0.61	56

Note: ₌ = significant at the .05 level

Secondly, the results of the hybrid classes were compared to the results of the face-to-face course with Chi-square analyses. The latter analysis showed where

there were significant differences among student perceptions after the completion of the course (see Table 6).

Table 6
Post-Course X^2 Comparisons

PERCEIVED CHOICE	X^2	sig	df
I believe I had some choice about a (face-to-face/hybrid) course	3.935	0.04*	1
I believe I had some choice about doing Supervision	0.186	0.66	1
I completed a (face-to-face/hybrid) course because I had to	1.551	0.21	1
I completed Supervision because I had to	1.976	0.16	1
I put my skills to use in order to complete a (face-to-face/hybrid) course	4.007	0.04*	1
I put my skills to use in order to complete Supervision	0.619	0.43	1
PERCEIVED COMPETENCE			
I am satisfied with my performance in a (face-to-face/hybrid) course	0.34	0.56	1
I am satisfied with my performance in Supervision	2.131	0.14	1
I believe my achievement has been higher than the majority of my peers	1.083	0.29	1
I had the necessary skills to succeed in a (face-to-face/hybrid) course	0.015	0.90	1
I had the necessary skills to succeed at Supervision	1.033	0.30	1
I did not do very well in a (face-to face/hybrid) course	0.772	0.38	1
Supervision is a course that I did not do very well in	0.918	0.33	1
EFFORT			
I put a great deal of effort into completing the assignments and projects in a (face-to-face/hybrid) course	2.949	0.08	1
I put a great deal of effort into completing the assignments and projects for Supervision	0.426	0.51	1
It was important for me to do well in a (face-to-face/hybrid) course	0.026	0.87	1
It was important for me to do well in Supervision	1.04	0.30	1
INTEREST/ENJOYMENT			
I greatly enjoyed learning in a (face-to-face/hybrid) course	0.893	0.34	1
I greatly enjoyed learning about Supervision	0.141	0.70	1
I think learning in a (face-to-face/hybrid) course was very interesting	0.002	0.96	1
Supervision was very interesting	2.812	0.09	1
Learning in a (face-to-face/hybrid) course did not hold my attention	0.293	0.58	1
Learning about supervision did not hold my attention	0.348	0.55	1
PRESSURE/TENSION			
I felt very tense in a (face-to-face/hybrid) course	30.472	0*	1
I felt very tense while doing Supervision	16.3	0*	1
I felt very relaxed while in a (face-to-face/hybrid) course	22.7	0*	1
I was very relaxed while doing Supervision	17.501	0*	1
VALUE/USEFULNESS			
I feel a (face-to-face/hybrid) course was useful for my future as a school leader.	1.06	0.30	1
I feel Supervision was useful for my future as a school leader.	0.744	0.38	1
I think a (face-to-face/hybrid) course was of great value for me	0.408	0.52	1
I think Supervision was of great value for me	0.995	0.31	1

Note: * = significant at the .05 level

Both the pre- and post-course surveys also included open-ended questions that provided additional insight into student motivation. Qualitative responses were organized thematically into groups corresponding to the IMI categories. Although the category of relatedness had not been included in development of the Likert scale items, it became clear during qualitative analysis of students' open-ended responses that the variable should be included as a grouping factor. Analytic memos organized around the IMI categories were written to compare results from before and after each course as well as to compare the results from all three sections to one another. These analytic memos helped bring out themes and trends, as well as to provide insight into the significant statistics.

Findings

Value/Usefulness

Student responses to open-ended questions indicated their strong desire in learning more about supervisor roles and responsibilities across all sections. Other responses within this category demonstrated their interest in career advancement and a belief that this course could help them do so. Thus, there were aspects of both practical and theoretical usefulness to the content of the course.

On the post-course survey, comments from the hybrid classes also fell into the category of value/usefulness. Responses indicated that students valued the learning experience and that students learned skills that will be of great value to them when they are one day working as a supervisor. Students also remarked that they liked learning and applying new skills, and that they saw themselves as having learned valuable skills in their field.

Quantitative analysis did not show any significant differences between classes or changes from before to after the course in the area of value/usefulness. Taken in combination with the qualitative data, this suggests that students expected to learn concepts and skills of value in the course and felt that these expectations had been met. It also demonstrates that both hybrid and face-to-face classes saw similar value in the coursework.

Perceived Choice

When asked why they had enrolled in the class, many responses fell within the areas of perceived choice. Students from both sections of the hybrid class focused their responses on the fact that the course was a program and certification requirement. This was the predominant response by students with comments like, "It is a requirement for my degree." The second most frequent response within perceived choice dealt with students' career options, indicating a desire to keep their options open for the future. For example, a typical response was, "Although I enjoy teaching right now, I fear that in five years I might get bored with teaching and might look for a supervisory role."

On the pre-course survey there was a significant difference only on the item, "I believe I have some choice about a hybrid/face-to-face course" (X^2 = 4.882, df = 1, p = .034). Closer examination of the mean scores reveals that the spring face-to-face mean score was 2.3793 (on five-point Likert scale). The spring hybrid mean score was 2.0345 and the summer hybrid mean score was 1.8571. Students

in the hybrid approaches perceive more agency in selecting the method of delivery than did students in the face-to-face classes.

Students in the summer hybrid course changed on the item "I look forward to putting my skills to use in order to complete a hybrid course" from the pre-course survey to the post-course survey (t = 2.049, df = 56, p = .045). This suggests that they ended up seeing more choice in the skill set they were applying than they had anticipated. No other significant differences from before the course to after the course emerged.

Statistically significant differences were found on two items on the post-course survey. The first was on the item "I believe I had some choice about a (hybrid/face-to-face) course (X^2 = 3.935, df = 1, p = .047). Examination of the scores reveal a higher mean in the face-to-face course than in either of the hybrid sections, suggesting that students who opted to enroll in a hybrid section perceived greater choice than the face-to-face section. The second item with a significant difference was, "I put my skills to use in order to complete a (hybrid/face-to-face) course" (X^2 = 4.007, df = 1, p = .045). At the conclusion of the course, students in the summer hybrid section had a lower mean score than in either spring course. A post-hoc analysis using a *t*-test reveals a significant difference when grouping for the semester the course was taken (t = 2.279, df = 84, p = .025), while there was not significance when grouping for delivery format (t = -9.77, df = 84, p = .331). This indicates that the semester in which the course was taken may have had a greater influence on perceived choice than the delivery format.

Students in the hybrid classes perceived somewhat greater choice than did students in the face-to-face section. This is interesting given that all students had the same level of choice about delivery and the course is a requirement for all students pursuing certification. Qualitative responses suggest that students took the course because it was a requirement and to keep their future options open. There does seem to be a benefit in continuing to give students the option of taking courses in a traditional face-to-face format or in an alternative delivery model.

Perceived Competence

In describing what they were most looking forward to before the course, responses for all three classes fell mostly within in the area of perceived competence. Each section indicated a strong desire to learn new skills in order to be an effective supervisor. For example, "I am looking forward to learning how to become an objective supervisor. I want to learn how to take teacher input to make democratic decisions. I also want to learn to merge faculty interest with my own educational philosophies."

Within the variable of perceived competence, no items were significant on the pre-course survey between students in the hybrid and face-to-face classes. One item did change from the pre- to post-course survey. Students in the spring hybrid section showed a change in the item "I will be satisfied with my performance in a hybrid course" (t = 2.090, df = 55, p = .041). This change suggests that students in this section had less confidence in their abilities to be successful in the course before the class began than after it ended.

Open-ended responses after the course focused on the resources and skills gained from the course. Students in the hybrid classes also believed their technological competence had improved. This perceived increase in technological competence may also help explain the difference between pre- and post-survey results in this area. Before the course students in the hybrid class may not have trusted their ability to succeed in a technological forum, yet after the course they knew they had been successful.

Effort/Importance

Students in the face-to-face class also responded to open-ended questions within the category of effort/importance. Their responses showed the importance of the thought-provoking work. They felt the content was worthwhile and informative. An illustrative comment was, "the content was very relevant to the role of a supervisor. I feel the idea of the supervisor as a 'teacher of teachers' was extremely emphasized and very significant." Additional comments indicated that they put a lot of effort into completing assignments while also having to put a great deal of effort into other areas of their life (i.e., work, family).

In this category there were no significant quantitative changes between pre- and post-course surveys or differences among sections. Qualitative comments focused on the importance of the content to the potential careers of the students. Students saw themselves as having put a great deal of work into the course, as is indicated by their responses in the area of pressure/tension described in the next section, but they did not necessarily see this work as related to the importance of the learning.

Pressure/Tension

In response to the open-ended question "what are aspects of the course you are not looking forward to" all three groups gave responses almost entirely in the area of pressure/tension. Students in all sections reported having concern about various aspects of the class including assignments, group work, and technology. A typical response from a student in the hybrid course was, "I am a little concerned about how easily it will be to work within a group online. I have a sense of how groups work in face-to-face courses, but this will be a new experience for me." Even in the face-to-face class, which only used Blackboard to support in-class instruction,

students were concerned about using the technology and being able to navigate their way through Blackboard.

The variable of pressure/tension had the clearest and most significant differences quantitatively. In the pre-course survey, all four items in this area revealed significant differences among the three sections:

- I will feel very tense in a (face-to-face/hybrid) course ($X^2 =$ 10.595, df = 1, p = .001).
- I will feel very tense while doing Supervision ($X^2 = 4.960$, df = , p = .026).
- I will feel very relaxed while in a (face-to-face/hybrid) course. ($X^2 = 12.516$, df = 1, p = .000) [reverse-scored item].
- I will feel very relaxed while doing Supervision. ($X^2 = 6.945$, df = 1, p = .008) [reverse-scored item].

Mean scores for all four items were highest in the face-to-face class. Because this variable is a negative predictor of motivation, it makes sense that the students enrolled in a section that was closest to their previous experience would feel less tension than students in different delivery formats.

The results on these four items were also significantly different in the post-course survey, mirroring the results in the pre-course survey.

- I will feel very tense in a (face-to-face/hybrid) course ($X^2 =$ 30.472, df = 1, p = .000).
- I will feel very tense while doing Supervision ($X^2 = 16.300$, df = 1, p = .000).
- I will feel very relaxed while in a (face-to-face/hybrid) course. ($X^2 = 22.700$, df = 1, p = .000) [reverse-scored item].
- I will feel very relaxed while doing Supervision. ($X^2 = 17.501$, df = 1, p = .000) [reverse-scored item].

For each item the mean scores of students in the spring face-to-face section were higher than the scores in either of the hybrid sections, suggesting that the perceived tension of students in hybrid courses was greater than the tension associated with a face-to-face course.

At the end of the courses open-ended responses from students indicated that at times they felt "overwhelmed by the work load." The spring hybrid class had several responses that showed pressure and tension regarding the use of Blackboard. Students in the face-to-face class also reported feelings of pressure and tension regarding the support function of Blackboard (e.g., retrieving and

printing documents). Respondents also commented on various aspects of tension regarding the assignments, group work, and lack of face-to-face contact. A common comment from a hybrid student reflected negative feelings about "the amount of work we had for the allotted time we had." The summer hybrid class also had responses within the category of pressure/tension regarding the pace of the class. Because the class was shortened due to the summer schedule, students responded to sometimes feeling overwhelmed and stressed by the workload and time frame.

The most significant responses in terms of motivation came in the area of pressure/tension, a negative predictor of students' motivation. There were significant differences in all four items related to this variable in both the pre- and post-course surveys. Before and after the course students in hybrid sections felt more tension. It is important to continue to recognize the pressure and tension felt by students in new delivery models and alleviate it when possible.

Interest/Enjoyment

Students in the hybrid classes made open-ended comments before the course began that fell into the area of interest/enjoyment. Their responses showed a clear interest in the technological format of the course and also the work that would be involved in the course. One student response indicated this clearly: "I have never had a hybrid course so I am looking forward to message boards … I really like topics that arise that way."

In the variable group designed in order to assess students' interest and enjoyment, there was one significantly different item between sections on the pre-course survey: "I will greatly enjoy learning in a (face-to-face/hybrid) course" ($X^2 = 5.863$, df = 1, p = .015). The scores of both hybrid classes were higher than the face-to-face class, suggesting that the new technology added an aspect of enjoyment or novelty for hybrid students.

Within the area of interest/enjoyment, students in both classes indicated an overall liking and appreciation for the content, structure, and delivery that the course offered on the post-course survey. For example, one student said, "I really enjoyed the delivery of this course. I loved how it was a mix of projects, case studies as well as readings. The hybrid course was excellent and very engaging for the entire semester … delivering the appropriate information at the appropriate time." Responses within this category from the hybrid classes showed that students enjoyed the flexibility that the course format afforded them, the group work and projects, and the clear organization of the class. A student from the condensed summer hybrid class commented: "I appreciated that it was very organized considering the four week time table. I valued that I was able to complete the assignments from the comfort of my own home and at my own pace.

I liked that we were also in groups because collaboration was very important." Student feedback also indicated overall enjoyment for the professor, the content, and the organization of the class. Feedback showed that students felt the class was very valuable.

Although all students professed to have enjoyed the class overall, there were some differences in the types of comments shared in this area. Students in the hybrid sections indicated that the flexibility and organization of the course were important to their enjoyment, while students in the face-to-face class did not highlight these attributes. These remarks seem to emphasize that the reasons students chose to enroll in the hybrid sections at the outset remained consistent throughout the semester and contributed to their enjoyment of the course.

Relatedness

The absence of relevant and easily converted items in the reliable battery from the IMI led to the exclusion of the variable of relatedness from the quantitative items on the survey. However, open-ended responses show how critical students find this aspect. On the pre-course survey, students indicated some apprehension that fell into this category. Their responses showed a concern for conducting field work and also taking part in group work. Students were also nervous about their work with others, as illustrated by the comment: "I am actually looking forward to most aspects of this course, however, the only concerns I might have deal with the group work that is required. I know how my students are at times resistant to working in groups due to the fact that some students do not pull their own share of the workload. My only apprehension with this course is that I choose a dedicated and motivated group that will work cooperatively to achieve success."

Students in all three sections of the course echoed this type of concern. All three classes also had many responses that fell into the category of relatedness on the post-course survey. These students expressed their enjoyment of being able to collaborate with peers and take part in groups. A student from a hybrid section offered a typical comment – "group work allowed me to work closely with a few people and get to know them better." It appears that the concerns about working with peer groups had turned into rewards by the end of the semester.

Even in the hybrid sections of the class, students focused on getting to know one another and working with peers as important elements of the course. Efforts to design and facilitate community, even among students who seek the flexibility to work independently and on their own schedule, are crucial.

Conclusions and Recommendations

Previous literature showed some conflict in the relative importance of interaction to learning. This study revealed that students see interaction and working with peers as a double-edged sword. On the one hand, they worry about how it will impact their individual learning if their group does not work effectively. Yet, when the group does function well, they regard it as a key contributor to their learning experiences. Johnson's (2001) remark that the best we can do is to set up a design and hope the community of practice emerges does not seem strong enough. It is a key responsibility of faculty members who teach using technologically-enhanced designs to facilitate the community. The chance relationships that may happen in face-to-face classes during "down time" will not blossom in online settings unless opportunities are strategically structured. Instructors can facilitate virtual relationships by setting up assignments so that students must work in small groups, respond to one another, plan together, and interact regularly.

In this study, issues concerning pressure and tension about assignments and workloads were greater in hybrid sections even though the assignments and expectations were the same for all sections. Thus, emerges a key question: Do students put more time and effort into a hybrid or online class? Do they put more pressure on themselves to complete readings and "prepare" for class? It is easy for a student in a face-to-face class to occasionally be unprepared and assume that this will not be noticed by the instructor when there are 29 other students ready to participate in the conversation. When students know that their individual contributions will be regularly read and assessed by the professor, it may create additional pressure on them to keep up with the work. If this is the case, it does not seem important for faculty members to shift expectations of students in hybrid and online classes, but perhaps to figure out how to create a parallel form of expectation in face-to-face classes.

Simultaneously, however, it is important to recognize the tension and anxiety that students feel when they are learning new skills at the same time as new content. Support for these students is critical. Institutions can provide logistical support in terms of technological help and accessibility. Instructors must provide the personal support needed so that students know it is possible for them to succeed in a new paradigm.

Leaders need to rise up to and seek new challenges. The responses from students in areas of interest and enjoyment demonstrate that a key aspect of the hybrid learning experience that contributed to motivation was the fact that students could do something new or different by taking the course in this format. This may be an indicator of leadership potential among students and it would be beneficial to

follow up on this area to discover how students approach new and different learning opportunities.

The findings of this action research study revealed several considerations which should be explored to see if they hold relevance to larger groups of students. First, it is important for instructors, program designers, and administrators to continue to focus on the learning needs of students at least as much as the logistical needs of the program. Secondly, it is important for these same parties to be aware of the multiple pressures associated with online and hybrid classes as well as other models which may emerge over time. There may also be a connection between those pressures and the typical characteristics of the conscientious, mature learners in leadership education that is worth investigating. Finally, it is essential to continue to create and model online learning communities that give potential leaders experience in building and supporting relationships at multiple levels and settings. The aspects of community and relatedness, which are so important in all groups, must not be overlooked in favor of ease and flexibility.

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Biography

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