The Value of Significant Learning Strategies in Undergraduate Education

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ABSTRACT

Learning taxonomies can assist faculty in developing course structures that promote enhanced student learning in the cognitive and affective domains. Significant Learning is one approach to course design that allows for development in six key areas: Foundational Knowledge, Application, Integration, Human Dimension, Caring, and Learning How to Learn. These six dimensions can be explored in a non-hierarchical manner, which enables faculty to choose a particular area of concentration without a strict progression of learning. This paper will highlight the value of developing Significant Learning strategies in undergraduate education.

INTRODUCTION

How can faculty improve student motivation and learning? One solution to this question may be found in the new taxonomy of *Significant Learning* (Fink, 2003). College instructors often become frustrated with the lack of student engagement within the classroom. According to Fink (2003), "When I talk to faculty, many say their biggest concern is low student attendance in class. Many see daily class attendance running around 50 percent by mid-semester in their lower division courses. But they report other problems as well" (p. 4). The other problems that faculty routinely experience include having students who lack motivation and energy to complete assignments, while being increasingly grade sensitive rather than learning the course material.

Effective educational strategies for course design should include opportunities for improving both cognitive and emotional aspects of learning (Fink, 2007). Instructors are facing mounting changes within higher education that are impacting delivery methods for course material. For instance, today's students are increasingly culturally diverse, technologically savvy, and multi-task oriented. Fink (2003) stated:

> In the United States, increasing numbers of older students, minority students, and first-generation students continue to seek higher education. In addition, traditional kinds of students are coming into higher education with greater familiarity with computers and often with part-time jobs. Some of these students will be looking for traditional kinds of educational experiences; others will stay at home and seek their education in a new form of delivery from a provider who can be located anywhere in the world....a much higher level of competition than in the past will characterize higher education in the future and the whole enterprise will become much more learning-centered. (p. 13)

Another important concern for instructors is the need to improve long-term learning in their students. According to Fink (2003), "If we include lots of content but students end up neither caring about the subject nor learning how to keep on learning, what are the chances that students will either retain what they have learned or make the effort to keep on learning" (p. 57)? Consequently, Fink advocated the need for significant learning by stating:

> If students learn how to apply the content, can see how it connects with other knowledge, understand the human implications of what they have learned, and come to care about the subject and about learning how to keep on learning, it seems much likelier that they will both retain what they have learned and continue to enlarge their knowledge after the course is over. Hence, if we take a long-term view of student learning, attending to significant kinds of learning seems like the right choice to make. (p. 57)

In an effort to increase knowledge in ways to improve student learning outcomes, this study presented research into the construct of significant learning. The six dimensions of Fink's integrated course design were examined and incorporated into four undergraduate business courses. An attempt was made to expand the traditional learning process by integrating more emotional and interpersonal components into the goals and methods. The courses were analyzed by administering student surveys at the end of the semester.

LITERATURE REVIEW

Background

The traditional approach to student learning provided a hierarchical view of attaining foundational knowledge and course content (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956). Approaches to the learning process have expanded to include emotional and non-hierarchical components that considered the importance of lifelong learning (Robinson, 2009). According to Fink (2003), significant learning occurs only when students are enthusiastic and the class displays high energy levels. The result is a significant and lasting change in student learning.

Emotional Intelligence and the Human Dimension

Fink (2003) noted the importance of *emotional intelligence* in developing personal and social competence, while comparing similarities to the human dimension of significant learning. One of the earliest contributors to the study of emotional intelligence was E. L. Thorndike (1920) who developed an innovative way to describe intelligence. He viewed a major component of human intelligence as *social intelligence* which means the ability to function in interpersonal situations. The study of intelligence in the emotional realm continued to develop over time (Bar-On, 2004; Stein & Book, 2000).

Fink's Taxonomy

Fink's (2003) taxonomy of significant learning includes the following six categories which are used for integrated course design:

1. *Foundational knowledge contains the principles, concepts, and basic course information.* This knowledge provides the base for understanding other forms of learning.
2. *Application* involves applying knowledge by developing skills and engaging in critical, creative, and practical thought processes.
3. *Integration* consists of understanding the connections between ideas, people, and different aspects of interdisciplinary learning and life.
4. *Human dimension* contains learning that occurs when students gain new insights about themselves and others.
5. *Caring* involves the change and development of new feelings, interests, or values toward something that students now regard as more important.
6. *Learning how to learn* transpires when students embrace the process of learning and become increasingly effective in future learning efforts.

Prior Research

Fink's taxonomy of significant learning has shown positive results in the classroom (Fallahi, 2008; Fink, 2007; Levine et al., 2008; Miners &

Table 1
BUSINESS MANAGEMENT COURSES
SIGNIFICANT LEARNING GOALS AND ASSESSMENT TECHNIQUES

	COURSE OBJECTIVES	ASSESSMENT
	Foundational Knowledge	
1.	Understand key terms, concepts, and course content.	Quizzes and Course Topic Presentations
2.	Understand the significant role of developing people skills within the organization.	Minute Paper and Discussion
	Application and Integration	
3.	Use insight gained into better people practices for developing social and emotional awareness.	Class Assignments and Discussion
4.	Compare and contrast differences between competing theoretical frameworks.	Small Group Discussions and Debates
5.	Demonstrate competence in written and oral communications related to better understanding oneself and others within an organizational context.	Writing Assignments, Discussion, and Group Presentations
	Human Dimension	
6.	Develop deeper learning outcomes of human significance and relationship building.	Human and Social Capital Exercises
	Caring Dimension	
7.	Demonstrate empathy and respect toward one another.	Reflection Exercises and Discussion
	Learning How to Learn	
8.	Learn how to think analytically and intuitively, while becoming self-motivated toward future development.	Case Studies and Research Assignments

Table 2
SURVEY ITEMS AND COURSE MEANS
STUDENT PERCEPTIONS OF SIGNIFICANT LEARNING

SURVEY ITEMS: COURSE MEANS	HRM	MGT	OB-1	OB-2
Foundational Knowledge (New)	4.45	4.84	4.58	4.86
Foundational Knowledge (Basic Concepts)	4.55	4.52	4.50	4.79
Application (Opportunities)	4.91	4.52	4.64	4.79
Application (Critical Thinking)	4.64	4.56	4.61	4.75
Integration (Other Courses)	4.55	4.44	4.39	4.71
Human Dimension (Self)	4.36	4.36	4.53	4.71
Human Dimension (Others)	4.27	4.20	4.47	4.61
Caring (Passion for Learning)	4.27	4.08	4.11	4.50
Caring (Personal Sensitivity)	4.18	4.00	4.39	4.54
Learning How to Learn (Lifelong Learning)	4.81	4.72	4.47	4.79

Grand Mean = 4.50 (N = 11); Cronbach's Alpha = .750 (HRM)
Grand Mean = 4.42 (N = 25); Cronbach's Alpha = .759 (MGT)
Grand Mean = 4.47 (N = 36); Cronbach's Alpha = .850 (OB-1)
Grand Mean = 4.70 (N = 28); Cronbach's Alpha = .709 (OB-2)

Nantz, 2009). For instance, one course redesign effort using means and *t* test comparisons validated Fink's taxonomy of significant learning as superior to the traditional lecture method in four of the six assessment areas (i.e., Foundational Knowledge, Application, Integration, and Human Dimension). Another example of course redesign using significant learning approaches led to establishing new learning goals, while dramatically improving student motivation and morale.

DISCUSSION

Significant learning goals were incorporated into four business management courses during the spring semester of 2011 (see Table 1). These courses included mainly junior or senior-level students majoring in business disciplines (e.g., accounting, finance, business administration, etc.). Two of the courses (Course 1 and Course 3) were taught in the morning, while the other two courses (Course 2 and Course 4) were taught in the afternoon (see Table 2). In addition, Course 3 and Course 4 covered the same topic, but were taught in different sections.

A survey was created to assess student perceptions related to significant learning. The survey included a five-point scale as follows: 5 = Strongly Agree, 4 = Agree, 3 = Neither Agree/Disagree, 2 = Disagree and 1 = Strongly Disagree. The survey included ten questions that were developed to measure student perceptions of learning within the following areas: learning new knowledge; learning the knowledge of basic concepts; learning through application exercises; learning through critical thinking assignments; learning through interdisciplinary content; learning more about oneself; learning more about others; learning to care about course content; learning to be sensitive to personal feelings and values; and learning how to learn. The results of the administered surveys were categorized by course means for each of the ten questions (see Table 2).

It was interesting to observe the differences in student perceptions based on course topic, course time, and course size. For example, the contrast between student perception means for the earliest class period (Course 1) and the latest class period (Course 4) was noteworthy. That is, 8 out of 10 significant learning dimensions were perceived to be greater in the last course taught as compared to the first.

Another interesting observation came from comparing the survey results of Course 3 with Course 4. Since these two, similarly sized, courses covered the same business topic and were administered to two different sections spanning morning and afternoon, the results gave additional insight into student learning perceptions. For instance, the afternoon course rated higher on all ten significant learning dimensions as compared to the morning course.

Finally, it was encouraging to examine that, across all four courses, students perceived significant learning had occurred during the semester. The dimensions of application and learning how to learn especially appeared to indicate greater perceptions of student learning based on the survey results. The results seemed to reflect the instructor's use of case studies, essay questions, and written assignments given to expand opportunities for both applied and lifelong learning.

SUMMARY

In general, student perceptions were positive regarding the significant learning survey items. All four courses rated relatively higher on the application and learning how to learn items. However, all four courses rated relatively lower on the caring items and especially in Course 2. Course 4 rated highest on 8 out of 10 survey items. The findings indicated that significant learning strategies, such as methods aimed at improving student application of course content, provided perceived benefits in the classroom. Although situational factors, such as class size and period, were considered in the study; future research is needed to explore potential determinants and relationships among the variables.

REFERENCES

Bar-On, R. (2004). *BarOn Emotional Quotient Inventory: A Measure of Emotional Intelligence*. Toronto, Canada: Multi-Health Systems.

Bloom, B. S. (Ed.), Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *Taxonomy of educational objectives: The classifica-*

tion of educational goals. Handbook I: Cognitive Domain. New York: David McKay.

Fallahi, C. R. (2008). Redesign of a life span development course using Fink's taxonomy. *Teaching of Psychology, 35(3),* 169-175.

Fink, L. D. (2007). The power of course design to increase student engagement and learning. *Peer Review 9(1),* 13-17.

Fink, L. D. (2003). *Creating significant learning experiences: An integrated approach to designing college courses.* San Francisco: Jossey-Bass.

Levine, L. E., Fallahi, C. R., Nicoll-Senft, J. M., Tessier, J. T., Watson, C. L., & Wood, R. M. (2008). Creating significant learning experiences across disciplines. *College Teaching, 56(4),* 247-254.

Miners, L., & Nantz, K. (2009). More significant and intentional learning in the economics classroom. *New Directions for Teaching and Learning, 2009 (119),* 25-33.

Robinson, C. (2009). Lessons on learning. *Journal for Quality & Participation, 32(1),* 25-27.

Stein, S. J., & Book, H. E. (2000). *The EQ Edge: Emotional Intelligence and Your Success.* Toronto, Canada: Multi-Health Systems.

Thorndike, E. L. (1920). Intelligence and Its Uses. *Harper's Magazine*, 140, 237-235.