In this issue:

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Factors That Influence Transfer of Learning *from* the Online Environment

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Abstract

In this paper the author discusses transfer of learning factors to enhance the work skills and knowledge of online MBA students in a managerial communications course. Qualitative research survey methods were utilized; nVivo 8 was used to manipulate the data in two areas: factors that enhance transfer of learning and when students began to apply the skills and knowledge in the course. The results show that the assignments, concepts, feedback, communications, and the instructor had an impact on learning and transfer of learning. One specific time (from the beginning) was mentioned when students began to apply their learning. The results of the study may be informative and instructive for other online instructors.

Keywords: Transfer of Learning, transfer of training, online learning, qualitative research

1. INTRODUCTION

Little Bo-peep has lost her sheep, And can't tell where to find them. Leave them alone, and They'll come home, Wagging their tails behind them.

Popular children's nursery rhyme

Transfer of training and transfer of learning are two sides of the same fabric. The only difference is the perspective. One perspective may be from the classroom teacher who is preparing students to advance to the next grade level or to an advanced course; the other perspective may be from the trainer who is preparing employees to enhance their job performance and employment. Both perspectives are legitimate. Both perspectives are of paramount concern for online classroom instructors or trainers. Despite research and experience efforts, a growing concern continues over the "transfer problem" in the online environment. And we know that Little Bo Beep's sheep knew how to get home because they had been trained to transfer their learning to the current situation.

The purpose of this paper is to share the results of a long-term evaluation instrument given to students for 15 semesters in a graduate managerial communications course. The interest in transfer of learning was piqued by students' unsolicited comments about how they were using the concepts and skills learned in the graduate class. Hopefully, out of the results of this evaluation will emerge factors and methods to enhance transfer of learning and training, as well as point out areas for future research.

2. REVIEW OF LITERATURE

When one talks about transfer of learning, one is concerned with the extent to which learning is transferable from one situation to another. Don Clark offers the following definitions of transfer of learning and transfer of training:

Transfer of Training

"That almost magical link between classroom performance and something which is supposed to happen in the real world." - J. M. Swinney. Transfer of training is effectively

and continually applying the skills, knowledge, and/or attitudes that were learned in a learning environment to the job environment.

Transfer of Learning

Applying the skills, knowledge, and/or attitudes that were learned in one situation to another learning situation. This increases the speed of learning.

Both definitions focus on the learner. Transfer of learning has been researched in various areas of psychology, management, and education and has been defined variously as follows:

- The effective and continuing application by trainees to their jobs, of knowledge and skills in training—both off and on the job (Broad and Newstrom, 1992, p. 6)

- Real transfer happens when people carry over something they learned in one context to a "significantly different" context (Fogarty, et al. 1991, p. x)

- Transfer is the application of knowledge learned in one setting or for one purpose to another setting or purpose (Gagne, et al, 1993, p. 235)

- Transfer of learning is the fundamental assumption of educators. We trust that whatever is learned will be retained or remembered over some interval of time and used in appropriate situations (Ripple & Drinkwater, 1982, p. 1947)

- In a sense any learning requires a modicum of transfer. To say that learning has occurred means that the person can display that learning *later* (Perkins & Salomon, 1996, p. 423).

These definitions point up that human learning is a complex activity: when we learn, we do not just acquire knowledge, skills, or new response patterns. We *think; we make connections.* We also receive, store, integrate, retrieve, and use vast amounts of information (Vockell, 2008). The brain is constantly processing the information that is being offered. In a very real sense, no useful learning takes place unless positive transfer occurs.

Transfer of learning makes information portable, so that learning travels with the learn-er to new locations. In the new locations, the learning is applied in novel, interesting, and innovative ways. When transfer of learning occurs, it is in the form of meanings, expectations, generalizations, concepts, or insights that are developed in one learning situation and are being employed in others (Bigge and Shermis, 1992, p. 13).

Basically, education or training that does not achieve considerable transfer is not worth much! In its broadest sense, transfer of learning is basic to the whole notion of schooling. If no transfer occurs at all, students will need to be taught specifically every act that they will ever perform in any situation (Bigge and Shermis, 1992, p. 13).

A person is in the best frame of mind for transfer to occur when he/she is aware of acquiring meanings and abilities that are widely applicable in learning and living. He/she must also want to solve new problems, or approach new situations and take risks, in the light of the insights gained through previous experience. For transfer to occur, individuals must generalize (i.e., perceive common factors in different situations, comprehend the factors as applicable and appropriate to both situations and thereby understand how a generalization can be used); and they must desire to benefit by the sensed commonality (Bigge and Shermis, 1992, p. 14). Teachers can act as guides and prompters to "shepherd" knowledge and skills from one context to another (Fogarty *et al*, 1991, p. 6).

Perkins and Salomon (1988) introduced two broad mediation strategies for transfer that they call "hugging" and "bridging". *Hugging* serves an automatic kind of reflexive transfer. It involves making the learning experience similar to the situations to which one wants transfer to occur. Strategies that belong to this category include Setting Expectations, Matching, Simulating, Modeling, and Problem-Based Learning (Fogarty *et al*, 1991, p. 21). *Bridging* serves reflective transfer. Bridging means helping students to make generalizations, monitor their thinking, and be thoughtful in other ways that foster mindful connection-making. Strategies involved are Anticipating Application, Generalizing Concepts, Using Analogies, Parallel Problem Solving, and Metacognitive Reflection (Fogarty, *et al,* 1991, p. 21). Both strategies enhance learning/practice to ef-

fectively improve performance or add to knowledge and skills. And it is up to the skilled teacher to know what is worth teaching: knowledge, skills, concepts, attitudes, principles, and dispositions (Fogarty, *et al*, 1991, p. 21).

3. WHY IS TRANSFER OF LEARNING IMPORTANT?

Several reasons exist for the attention that must be paid to transfer of learning. Several of these reasons are included below:

- Transfer of learning refers to both process (hugging) and outcome (bridging). It is seen as a building block to help us store, process, retrieve, plan, and organize information for later use.

- Globalization, technological, and increased interdependence requires us to have information and skill that will transfer to many different situations and contexts. Haskell (2001) observes that the Information Age necessitates rapid and innovative responses. Dealing with change and lifelong learning also pushes the envelope on transfer of learning.

- The trainee and the employer want to transfer to occur; however, many times the training is too obscure or theoretical. For learning to occur and for job enhancement, attention must be paid to the individual learner (Haskell, 2001, p. 25).

- Training is a multi-billion dollar undertaking in today's rapidly shrinking world. Improved accountability and evaluation systems highlight the importance of return on investment and to meet organization goals and challenges (Phillips, 1996; Williams, 2003). Attention to transfer of learning holds the key to improved job performance and employee contributions.

By becoming aware of factors that enhance transfer, teachers and trainers can make transfer a lot more likely to happen by using strategies (hugging and bridging) that make learning portable. Teaching for transfer is not just for a test, but for a lifetime.

4. TRANSFER OF LEARNING IN THE ONLINE ENVIRONMENT

An ongoing debate continues about whether it is the use of a particular delivery technology or the design of the instruction that improves learning (Clark, 2001; Kozma, 2001). It has long been recognized that specialized delivery technologies can provide efficient and timely access to learning materials; however, Clark (1983) has claimed that technologies are merely vehicles that deliver instruction, but they do not influence student achievement. As Clark notes, meta-analysis studies on media research have shown that students gain significant learning benefits when learning from audio-visual or computer media, as opposed to conventional instruction; however, the same studies suggest that the reason for those benefits is not the medium of instruction, but the instructional strategies built into the learning materials. Similarly, Schramm (1977) suggested that learning is influenced more by the content and instructional strategy in the learning materials than by the type of technology used to deliver instruction.

According to Bonk and Reynolds (1997), to promote higher-order thinking on the Web, online learning must create challenging activities that enable learners to link new information to old, acquire meaningful knowledge, and use their metacognitive abilities; hence, it is the instructional strategy and not the technology that influences the quality of learning. Kozma (2001) argues that the particular attributes of the computer are needed to bring real-life models and simulations to the learner; thus, the medium does influence learning. However, it is not the computer per se that makes students learn, but the design of the real-life models and simulations, and the students' interaction with those models and simulations. The computer is merely the vehicle that provides the processing capability and delivers the instruction to learners (Clark, 2001). Kozma is correct in his claim, but learners will not learn from the simulations if the simulations are not developed using sound design principles.

Online learning allows for flexibility of access to learning, from anywhere and usually at anytime—essentially, it allows participants to collapse time and space (Cole, 2000)—however, the learning materials must be

designed properly to engage the learner and promote learning. According to Rossett (2002), online learning has many promises, but it takes commitment and resources, and it must be done right. "Doing it right" means that online learning materials must be designed properly, with the learners and learning in focus, and that adequate support must be provided. Ring and Mathieux (2002) suggest that online learning should have high authenticity (i.e., students should learn in the context of the workplace), high interactivity, and high collaboration (with classmates and the instructor).

The current study sought to identify the strategies, activities, and timing that enabled students in the graduate managerial communications class to see the need (either perceived or conscious) to apply their learning and at what point in the course this began to happen.

5. RESEARCH FOCUS AND QUESTIONS

The online graduate managerial communications course has been taught by the same instructor since the course moved to the online venue in 1998. The goals of the course have remained fairly constant and include those listed here: Specifically, students complete a course that

- provides an in-depth analysis of the role, importance, and practical applications of managerial communications within the contemporary corporation, governmental agency, and non-profit organization

- covers the crucial role of communications in business

- highlights the role of communication in the role of the manager

- develops the ability to manipulate a wealth of raw data into robust information

- integrates managerial theory and practical professional application in the field of communication;

- provides opportunities for you to develop techniques and tactical tools and media for internal and external communications

- emphasizes message development, dissemination, and evaluation in both traditional and electronic formats

- focuses on working as individuals and in teams to enhance managerial communications

In the context of learners who have participated in the online graduate communications course over time and focusing on the goals of the course, the following questions guided the study:

1. What specific things did your instructor do to help transfer your learning to your work situation? Give 5 examples.

2. At what point in the semester were the concepts and skills learned being used in your work situation?

Table 1.
Demographics Snapshot of
MBA Students in Program

Factor	%
Ethnic Origin %	
Asian	.016
Black	.049
Hispanic	.022
White	91.21
Gender %	
Female	54.4
Male	45.6
Average age	32
Employment full time (for profit, not for profit, military, self-employed): 95%	
Range of Years of Experience:	3-20+
Place of residence	
In-state residents	75%
Out of state or country residents	25%

6. METHODS

This study used a qualitative research design to explore student perceptions of knowledge transfer from classroom to workplace. In accordance with qualitative methods, research participants were selected using purposeful sampling—students enrolled in the

course from 2002-2009. The method of data collection was a survey instrument that was administered over a ten-year period of time. Survey results were subsequently analyzed using nVivo 8, a computer-based qualitative data analysis program. Because this was a descriptive and exploratory study, the data were analyzed for patterns and relationships.

The sample size was 223 graduate students completing a Master's in Business Administration (MBA) degree at a regional university. The participants were self selected through an end-of-the-semester survey that was completed online. During the identified time period, 303 students enrolled in the course, showing a 74% participation rate. No demographic data were asked for on the survey instrument. The survey results reflect strong input and opinions. Table 1 below provides the aggregate demographics for students in the online MBA program at the regional university:

7. DATA ANALYSIS

The qualitative data were analyzed using reflective analysis, a process in which the researcher relies primarily on intuition and judgment in order to portray or evaluate the phenomena (Gall, Gall, & Borg, 2003). The qualitative data were categorized to answer the two research questions through open coding to provide primary results. nVivo 8 software was used to enter, code, and produce usable research results to gain insight into students' attitudes, behaviors, value systems, concerns, motivations, and feelings. It's used to inform business decisions, policy formation, communi-ation, and research and appeared to be the software to produce results related to the research questions in this study.

The primary results were coded to reinforce and collect secondary results. Based on this analysis method, the following results were abstracted and presented to show the participants' reaction according to the strategies, activities, and timing. In addition, the researcher has included the students' direct statements (based on secondary findings) as much as possible in order to provide readers with a deeper understanding of students' perceptions of learning and knowledge transfer. The secondary findings are *italicized* in the quoted comments.

Research Question 1

Table 2 shows the results of data from the first research question: What specific things did your instructor do to help transfer your learning to your work situation? Give 5 examples. Because of the nature of this statement, students' responses were numerous: 1,605 responses. However, over time of the study, the results showed similarities in responses. A representative sample of comments for each of the eight factors that had 100 or more responses is included after the table.

**Table 2.
Factors that Enhanced
Transfer of Learning, 2002–2009**

Factor	Number of Responses	%
Assignments	326	20.31
Communication	280	17.45
Feedback	272	16.95
Class	183	11.40
Instructor	180	11.21
Course	142	8.85
Presentation	115	7.17
Concepts	107	6.66
Totals	1605	100.00

Assignments

The assignments in the course cover a wide range of written and oral communications that managers may encounter, using case studies: setting priorities, giving good and bad news, giving one-on-one feedback and receiving feedback, communicating change, leading discussions, participating in a press conference, enhancing cross-cultural communi-cations, writing and revising codes of ethics and electronic guidelines, and making an oral presentation. Comments from respondents below reinforced the nature of a master's program—that the program is a practitioner's degree that can enhance one's current work situation:

- Assignments were relevant to study material; required a lot of critical thinking skills

- *Chat room* opportunities kept focus on assignments

- Provided *helpful* hints to complete the assignments

- The instructor enhanced my understanding of what makes managerial communication different from other forms of communication. It taught me how to think strategically about communication in a *management* setting and the decisions about *communication* strategy which will have a profound effect on all aspects of my future roles here at work and outside of work

- The first few assignments were tough and made me really think about my *communications*

- Provided *real-life* assignments that could be used in the future

- Excellent *case studies* that sparked great classroom debates

- Overall, in the course I have learned how to: gain an in-depth analysis of the role, importance, and practical applications of managerial communi-cations within the contemporary corporation, governmental agency, and non-profit organization

- One of the most important things that I learned from this course is how to develop skills to effectively motivate, empower, and lead people. The instructor helped me learn how to make a vision a reality by planning, motivating and coping through change, by the proper use of *managerial communi-cations*

- The instructor/book used *real life examples* and classroom *discussion* to allow us to practice communicating as well as allowing us to think about how the real life situation was communicated both right and wrong

- Provided very rewarding insight into the *cases* and course material. It is evident that the instructor is well rounded and fine tuned in the field of communications. While most of us see the courses in black and white, the instructor was able to provide color and different perspectives rather than just the obvious observations.

- Although tedious, the required *writing* assignments for each *case* provided a great opportunity for me to test my understanding of the topics covered in each chapter.

- I really enjoyed the variety in the assignments.

Communication

A variety of communication opportunities existed in the course—from communication to and from the instructor, interactions between and among the students, and learning to communicate in a virtual environment. With the introduction of a web conferencing tool into the class in Fall 2007, communications were enhanced and encouraged. Representative comments from participants in the course and the study related to communication are presented below:

- The *chat rooms* were a very beneficial learning tool. It gave us the opportunity to see things "through other people's eyes" in a very non-threatening learning environment.

- *Barriers to communication* was quiet helpful as I work in a very *global* environment. I was aware of some of the information, but the idea about using simple words to communicate was new and it works in a global workplace. I have shared this *slideshow* with my staff.

- Gave several *examples* of communication on the Blackboard site

- *Encouraged* participation during online classes

- The ability to speak in real-time allowed everyone to improve their communication skills

- The numerous varying assignments gave the class exposure to the many means utilized in managerial communication

- Instructor was involved in the *chats*. Right or wrong. The instructor could have easily started our discussion, sat back, and allowed us to beat through the cases. Instead, the instructor was *right in the midst of things*

- Facilitated the class in such a manner that *encouraged* relating course material to work situations. Not only did I learn from the mistakes in the cases, I feel as

if I am better prepared to avoid those mistakes going forward in my career.

- Online classes are a form of *communications* and there are plenty of obstacles to overcome (technology, timing issues, etc.)

- Instructor *provided* a positive and safe environment to communicate ideas in the class

- Bailey and Wick *case* taught me that sometimes processes and communications patterns are deliberately broken. Interesting, but in some cases necessary

- Personally, the curriculum pushed me and it helped me understand how to be an effective communicator

Feedback

Feedback was provided to the participants in several ways—during the chats, on the Discussion Board, and on written and oral assignments. Respondents' comments included the following:

- Instructor provided *good* feedback on all my assignments and was available for consultation when I had questions about the feedback

- Feedback on each assignment was very *helpful*. I liked the fact that when scores were lower than desired, the teacher explained the reasoning behind the grade and offered advice for improving. Many teachers post a grade but don't tell you how to improve. "If you don't know where something is broke, then you can't fix it."

- Provided *quick* and *meaningful* feedback for each assignment; feedback offered great reference material

- Providing feedback on each assignment was also extremely *helpful* instead of just grading the assignment

Class and Course

These two factors are combined here since the feedback from respondents made it hard to separate the two factors. Comments are included below:

- "lectures" were filled with *relevant* information assignments were relevant to study material

- Overall, the *course* opened my eyes to situations that could happen during my career, like firing employees, ethical issues, etc.

- The class had a little bit of everything as far as assignments go: papers, team projects, *case* studies, etc. This *helped* keep my interest and helped me to learn. Taught me how to *write* more clearly with fewer words Assigned case studies to read and analyze that were similar to those that I deal with at work

- Used a course overview to *organize* this course

- Excellent *organization* of materials and user friendly

- Course and documents were very well *organized*

- The course was *well designed* and covered topics that I definitely found valuable (REALTIME) in my current job.

- Provided exceptional *organization* and *structure* for the class in a suggested schedule

Instructor

Although evaluation of the instructor is completed at another time, the presence of the instructor in this course seemed to be critical as the remarks below illustrate.

- Instructor provided a *positive* and *safe environment* to *communicate* ideas in the class

- Instructor provided great *feedback* in the discussion to our questions

- Instructor's patience with us was fantastic, even when we asked the same question again in a different way!

- Instructor was ALWAYS prepared for class, thus the bar was set high for the rest of the class to come equally prepare to discuss the case

- The *lecture notes* were fantastic! I plan to keep mine as a reference and to actively use them when I have to *communicate* at work when I have some question of how to be the most effective I can be in the situation

- The instructor was great. She *responded* quickly when asked questions. She gave

specific *guidance* on each assignment and gave insight into her expectation. She made the class interactive and required feedback from all students. She required participation from all members on group work and she provided detailed lecture notes that complimented the text.

- The instructor really gave the students control of the class and then added *input* and *advice* to steer us in the right direction. Instructor was always *available* to students (being an on-line course didn't restrict us to office hours of your instructor). Instructor created assignments that we were able to relate to *real life situations*; we were able to adapt the information we learned to our personal scenarios instead of being restricted to "mock situations" that we may never encounter. Instructor had regular *chat rooms*, so I felt connected with the class, even though we were not in a class room. Instructor offered additional resources that gave different perspectives than the text book. Instructor gave constructive *feedback* on assignments to show us how we could do better.

- Always *available* for support

- Instructor required that we approach all of our assignments from the perspective of a manager. It was not always easy to do, but it helped me to see both sides of a situation.

- Obvious that the instructor was *enthusiastic* about the subject and wanted students to learn

Presentation

The oral assignment in this course is the final project and is made up of five components: a 5-page written narrative, a one-page self-reflection paper, evaluator's comments, the video, and the PowerPoint slideshow. The schedule is arranged so that students sign up to present the story presentation some time during the semester in the web conferencing tool.

- The final assignment (story creation) was one of the most *beneficial* course projects that I have ever had to complete

- I thought that the story presentation was a wonderful project. It required us to research a topic, develop a PowerPoint presentation and *present* in public. I thought that it really helped to *prepare* us for those instances when we would be required to do public speaking

- Assigned the "story" assignment which I'll use at my work

- The story was a good assignment because it helped us learn how to organize a presentation effectively. After having the story written it was easy to go back and design the presentation.

Concepts

The managerial communications course is designed to reinforce undergraduate business communication course concepts and extend those concepts in a real-world, practical application mode. As stated in the goals for the course, three of the main goals of the course--to provide an in-depth analysis of the role, importance, and practical applications of managerial communications within the contemporary corporation, governmental agency, and non-profit organization; to cover the crucial role of communications in business, and to highlight the role of communication in the role of the manager are critical concepts to internalize. The comments from the students do illustrate understanding of the concepts.

- Used real life examples to teach topics, *role play* helped us internalize importance of communication and apply theory, *chat* sessions kept us in touch, communicated assignments and expectations clearly, kept on schedule

- The emphasis on identifying the *target audience* was very helpful and the discussion with other students and the instructor brought out issues to be considered.

- How to interact in real time with an on-line audience

- Crafting the same message differently to tailor the message you intend to an appropriate *audience*

- The instructor provided useful *strategies* for a host of difficult managerial communications scenarios

- Good advice on how to respond positively to negative questions

- Use *techniques and tactical tools and media for internal and external communications*

- *integrate managerial theory and practical professional application* in the field of communication

- *Develop the ability to manipulate a wealth of raw data into robust information*

- Realize the *crucial, ethical role* of communications in business and in the role of the manager

- *Listening*

- Understanding the *most effective medium (media)* to use for each situation

The eight identified factors that emerged from the first research question—assignments, class and course, instructor, feedback, concepts, and presentation—make the second research question an exciting basis for exploration.

Research Question 2

Table 3 shows the results of data from the second research question: At what point in the semester were the concepts and skills learned being used in your work situation? A total of 642 responses were given; only responses that were mentioned 10 times or more are included here. The results in Table 3 show a wide ranging times that were mentioned by the respondents; however, from the beginning of the course was mentioned most often. Other respondents mentioned a specific chapter, assignment, chat, or case study.

Timing results as shown by the survey data support anecdotal comments made during the chat sessions over the course of the semester. The results are gratifying and support the research related to assignments, activities, strategies, and learning materials making a difference in the online learning environment. Technology was a vehicle to present the course; only as a tool does it have value when enhancing student learning and transfer of learning. Overall, the instructor is a factor that makes the difference.

Table 3.
When Students Began Using the Factors
2002-2009

Time in Semester	Number of Responses	%
From the beginning	226	28.61
After the first two weeks	59	8.70
When we had the 1st chat	59	8.70
Begin in first 2-3 weeks	55	8.11
Started in 3-4 weeks	51	7.52
Halfway	50	7.37
Using in 4-5 weeks	47	5.33
Before leading meeting	36	5.31
After the (named a specific) case study)	35	5.16
Chapter (a particular)	24	3.54
Totals	642	100

8. SUMMARY AND CONCLUSIONS

Aside from affirming that perceived transfer of learning from the classroom to the workplace did occur, the underlying theme that emerged from this study suggested that the individual benefited by this ability to transfer knowledge and skills from the learning environment back to the work situation. While students responded to specific questions, they indicated that they felt they were better prepared as a result of taking the required managerial communications core course. Students reported feeling more qualified and confident in their communication ability. Or at the very least, they have reason to stop and think before they communicate. The impact of the methods used to teach coursework in the managerial communications class were successful.

                   February 24, 2010

The results of this study indicate that students developed cognitively, behaviorally, and affectively as a result of learning managerial communication concepts and then applying these concepts and skills to the workplace. Other research opportunities may be identified from this study:

• A need for further study exists to better understand the relationship between learning and transfer.

• The nVivo 8 software can determine relationships between factors in studies. When this tool was applied to the factors and time in this study, no relationships emerged. Why?

• Also, no effort was made to determine differences that might emerge in internalizing the concepts in the length of the class; that is, the 8-week summer and 16-week long semesters.

• The existing research examining the effects of course design on the trainee/student and the knowledge of learning and work environment factors on conditions of transfer should be closely monitored.

• Does the work environment enhance or detract from applying the skills learned? Are students' skills welcomed in the work situation?

• Research gaps identified from the literature review may include the need to

  o test various aspects of course design and learning and work environment factors that have been posited as having an impact on transfer of training and learning

  o offer a framework for further research on the effects of trainee/student characteristics on learning transfer. Of interest would be the instructor knowledge of transfer of learning techniques, student/trainee characteristics, interest of the online instructor in fostering transfer of learning, and other factors that will inform online instruction.

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