Knowledge Dissemination Using a Hybrid of Teaching Techniques: Lessons Learned from the Case of The American University in Cairo

Khaled Dahawy & Sherif Kamel

Dept of Management, School of Business, Economics & Communication, The American University in Cairo, 113 Kasr El Eini Street, Cairo, 11511, Egypt, {dahawy, skamel}@aucegypt.edu

ABSTRACT

The aim of any teaching institute is to provide suitable environments to accelerate the learning process. The Experiential Learning Theory suggests that there is a relationship between the learning environments, learning techniques and suitable teaching techniques. Therefore, it is important to study these relationships to improve the learning process which is reflected on the outcome gained from the recipients of the knowledge disseminated. Learning and teaching techniques are classified into two groups: active-like (A-like) techniques and passive-like (P-like) techniques. Thus, the objective of this paper is to examine the importance level of these techniques and their relative implications, as well as their degree of preference. The methodology used is based on an empirical research with the use of a survey questionnaire where students studying courses in the department of management at the American University in Cairo as well as their professors were asked to complete a survey questionnaire to indicate the importance level for each technique.

INTRODUCTION

Over the past two decades, the educational system has been undergoing a dramatic shift. Teaching has been moving from a "largely teacher-centered, product-based activity, to a more student-centered, process-based activity. Rather than being passive learners, students are now encouraged to be active in the process or 'experience' of learning" (Mellor 1991). The question is whether this new student centered teaching style is appropriate for all students irrespective of their pedagogical preferences, or is there a need to tailor the teaching techniques to the needs of the students.

Education like any other process found in life, has inputs and outputs. The input to the education process is teaching, while the output is learning. Therefore, the main objective of any instructor is satisfying the learner's expectations. Instructors often use teaching techniques that they believe will help them achieve their desired objectives. These techniques include case studies, projects, lectures, and exams among others. Applying the same teaching technique(s) for a group of students with similar pedagogical preferences may be suitable, but it will be unsuitable if this group has different preferences. Consequently, the efficacy of a teaching technique will differ from one student to another; each student will have his own preferences. Both Johnson and Warner (1991) report that a teaching technique that is effective for one student might not be as effective as for another student. Several studies (Holland, 1989; Kolb and Fry, 1975; Witkin et al, 1977) indicate that fundamental differences in learning styles lead to differing pedagogical preferences, and individuals develop differing learning styles (Rodrigues 2004).

Some students learn better through active-like (A-like) techniques, such as individual research projects, where students bear high responsibility for learning while others learn better through passive-like (P-like) techniques, such as reading textbooks, where students bear low responsibility for learning. Hence, if an unsuitable technique is used, it may hinder the learning process. Thus, instructors should examine the teaching techniques, in order to use the most relevant ones that will help them achieve their objective, which is satisfying the learners' expectations to learn best. This manuscript examines the importance level of ten teaching/learning techniques that are commonly used by students enrolled and faculty teaching at the department of management of the school of business, economics and communication of the American University in Cairo in the following concentration areas: business administration, marketing, accounting, finance, and management information systems. Both groups (students and faculty) were surveyed and were asked to rate the importance level of six passive-like and four active-like teaching/learning techniques which are demonstrated in table 1.

It is important to note that Egypt is a developing nation, in the midst of developing its education processes. The existing status of education is relatively poor, where the educational quality suffers from lack of modern curricula and far less volume of teachers when compared to the number of students. Therefore, the outcome of high schools is usually students who expect the teacher to lead, and provide learning points; it is more or less a one-way teaching process where the teacher is expected to do all the talking and provide the complete structure. Thus, it might be arguable that students always prefer the passive learning techniques. The case of the American University in Egypt, established in 1919, combines the American liberal system in teaching with local educational requirements that cater for the cultural norms and values. The university has been the leader in Egypt and the region in over 80 years and it works on bettering the education system and changing the students' attitude more towards the active structure and being more participative and more involved.

Table 1. Learning and Teaching Techniques

Active-like and Passive-like Learning/Teaching Techniques
Passive-like (B-Like) teaching/learning techniques
▪ Lectures by instructors
▪ Reading textbooks
▪ Guest speakers
▪ Videos shown in class
▪ Classroom presentations by students
▪ Computerized learning assignments
Active-like (A-Like) teaching/learning techniques
▪ Case studies
▪ Individual research projects
▪ Group projects
▪ Classroom discussions

The objective of this research paper is two fold: First, it clarifies the preference of the different teaching/learning techniques that may be used in different courses. Second, it helps professors and instructors in accurately selecting the technique that best suits their students' preferences. The results of this paper can also be considered as guidance for managers in how to conduct training sessions for different disciplines. However, teachers also will find the results of this study beneficial as they will understand these teaching/learning techniques, and choose the most suitable one while communicating with their students.

THE AMERICAN UNIVERSITY IN CAIRO PROFILE

The mission of the American University in Cairo (AUC) is to provide high quality educational opportunities to students from all segments of Egyptian society as well as from other countries, and to contribute to Egypt's cultural and intellectual life. The university offers programs at the undergraduate, graduate and professional levels as well as an extensive continuing education program. The language of instruction is English.

The university advances the ideals of American liberal arts and professional education and of life-long learning. As freedom of academic expression is fundamental to this effort, the university encourages the free exchange of ideas and promotes open and on-going interaction with scholarly institutions throughout Egypt and other parts of the world. The pursuit of excellence is central to the university's mission, and the university maintains high standards of academic achievement, professional behavior and ethical conduct. Toward this end it also provides a broad range of disciplines and learning opportunities and strives to contribute to the sum of human knowledge. The university environment is designed to advance proficient use of the tools of learning as well as students' thinking capabilities, language and personal skills.

The department of management is dedicated to offering quality classroom instruction and to enhancing personal development through interaction among faculty and students. The faculty of the department of management maintains active involvement with the business community through applied research, consulting and training. The programs of the department prepare undergraduates for careers in business in Egypt, the Middle East and the global community. Graduates leave the program with the knowledge and skills necessary to function as professionals, entrepreneurs, and visionary leaders in the complex organizations of the 21st century. Case studies, projects, and other pedagogical methods in most courses focus on organizations and the business environment in Egypt and the region. Additionally, the faculty and business leaders have developed a comprehensive list of competencies (values and attitudes, knowledge, and skills) that students are expected to attain before graduation.

The department of management offers two undergraduate degrees; a Bachelor of Business Administration (BBA) and a Bachelor of Accounting (BAC). The department also offers an MBA with several concentrations. The management department has 23 full-time faculty organized into five units as indicated in Table 2. AUC may be unique in the world in its demand for a multicultural faculty. As part of its agreement with the Egyptian government, AUC strives to maintain diversity of background in its faculty by employing 45 percent Egyptian, 45 percent American and ten percent other nationalities. As of fall 2004, the distribution of the faculty by nationality was 51.9% Egyptian, 37.9% percent American and 10.2% other nationalities.

During fall 2004 the management department at AUC had 636 students enrolled divided into 355 in BBA degree program, 119 in BAC program and 162 in MBA. Table 3, 4, and 5 show the classification of the students based on the citizenship of origin, and gender. Table 5 shows the classifications of the students enrolled in BBA depending on there area of concentration.

EXPERIENTIAL LEARNING THEORY

The learning style refers to the components of individual differences that are important to knowledge and skills acquisition (Shade, 1989a).

Table 2. Organization of Full-Time Faculty

Unit	Number of Faculty
Accounting	4
Finance	4
Management	5
Marketing	5
Management of Information System/Operations Management	5
Total	**23**

Table 3. Citizenship of Department of Management Students, fall 2004

Country	BBA	BAC	MBA	Total
Canada			1	1
Egypt	341	102	156	599
Germany	1			1
India	1			1
Jordan	5	3		8
Kazakhstan	1			1
Korea			1	1
Libya		1		1
Nigeria		1		1
Palestine		2	1	3
Poland	1			1
Qatar			1	1
Romania		1		1
Saudi Arabia		6	1	7
Sri Lanka	2			2
Sudan	2	2		4
Syria		1		1
Yemen	1		1	2
Total	**355**	**119**	**162**	**636**

Table 4. Gender of Department of Management Students, fall 2004

	BBA		BAC		MBA		Total	
	Number	%	Number	%	Number	%	Number	%
Male	100	28.2%	69	58.0%	95	58.7%	264	41.5%
Female	255	71.8%	50	42.0%	67	41.3%	372	58.5%
Total	355	100.0%	119	100.0%	162	100.0%	636	100.0%

Table 5. Number of Students enrolled in BBA/Classified by Area of Concentration

Finance	116
Management	97
Marketing	121
Management of Information System/Operations Management	21
Total	**355**

People who share common historical and geographical settings adapt to the same set of environmental results and as a result they have a unique learning style (Shade, 1989b). Moreover, the characteristic of the learning style within a nation is usually enhanced through children development and their interaction with the educational system. A nation's culture has a great impact on the preference of the teaching/learning technique. For example, learners from Egypt as compared to Western learners hold different teaching preferences. Western learners prefer learning through active-like techniques; they learn through their own discovery (Punn 1989a, Punn 1989b, Jarrah 1998, and Ladd and Ruby 1999). On the other hand, learners from Egypt prefer learning through the passive-like techniques; they expect that teachers provide all the learning points and deliver much of the discussions in class. Some people want less control and prefer that the teacher provide structure, while other people want greater control and personal responsibility in

the learning process. Hence, there are many aspects of individual differences that shape the way in which one acquires knowledge and skills (Dunn et al, 1975).

Experiential learning theory (ELT) defines learning as the process whereby knowledge is created through the transformation of experience (Mainemelis et al. 2002). Kolb 1984 states that knowledge results from the combination of grasping and transforming experience. ELT introduces two modes of grasping experience that are dialectically related; (1) Concrete experience and (2) Abstract conceptualization, and two modes of transforming experience that are dialectically related; (1) reflective observation, and (2) active experimentation. ELT states that individuals learning styles are determined by the individual's way of resolving these two dialects. Kolb 1984 defines the four learning abilities as follows:

- An orientation toward Concrete Experience focuses on being involved in experiences dealing with immediate human situations in a personal way. It emphasizes feeling as opposed to thinking; a concern with the uniqueness and complexity of present reality as opposed to theories and generalization; an intuitive "artistic" approach as opposed to the systematic, scientific approach to problems. People with concrete experience orientation enjoy and are good at relating to others. They are usually good intuitive decision makers and function well in unstructured situations. The person with this orientation values relating to people and being involved in real situations, and has an open minded approach to life.

- An orientation toward Reflective Observation focuses on understanding the meaning of ideas and situations by carefully observing and impartially describing them. It emphasizes understanding as opposed to practical application; a concern with what is true or how things happen as opposed to what will work; an emphasis on reflection as opposed to action. People with reflective orientation enjoy intuiting the meaning of situations and ideas and are good in seeing their implications. They are good at looking at things from a different perspective and at appreciating different points of view. They like to rely on their own thoughts and feelings to form opinions. People with this orientation value patience, impartiality, and considered, thoughtful judgment

- An orientation toward Abstract Conceptualization focuses on using logic, ideas, and concepts. It emphasizes thinking as opposed to feeling; a concern with building general theories as opposed to intuitively understanding unique, specific areas; a scientific as opposed to an artistic approach to problems. A person with an abstract concept orientation enjoys and is good at systematic planning, manipulation of abstract symbols, and quantitative analysis. People with this orientation value precision, the rigor and discipline of analyzing ideas, and the aesthetic quality of neat conceptual system.

- An orientation toward Active Experimentation focuses on actively influencing people and changing situations. It emphasizes practical applications as opposed to reflective understanding; a pragmatic concern with what works as opposed to what is absolute truth; an emphasis on doing as opposed to observing. People with an active experimentation orientation enjoy and are good in getting things accomplished. They are willing to take some risk in order to achieve their objectives. They also value having an influence in the environment around them and like to see results.

Prior research (Rodrigus 2004, Fry 1978, Kolb 1077, and Bilgan 1973) indicated the presence of a strong relation between the learning ability orientation and the learning environment. People with abstract conceptualization learn best where learning is math based, hard, and paradigmatic (Symbolic Domain Environment). People with reflective observation ability learn best where learning is theory based (Perceptual Domain Environment), people with concrete experience ability learn best where what is learned is humanities based, soft, non-paradigmatic

Table 6 - Summary of the Relationships from Learning Abilities to Suitable Techniques

Learning Ability	Learning Environment	What is Learned	Outcome	Learning Interests	Suitable Technique
Concrete experience	Affective domain	Humanities based, soft, non-paradigmatic	Self-direction, and self-understanding	Marketing, and business administration concentrations	Active-like techniques
Reflective observation	Perceptual domain	Theory based, pure	Emancipation from assumption, complete and complex perspective		
Abstract conceptualization	Symbolic domain	Math-based, hard, paradigmatic	Order, mental coherence, and clear thinking	Accounting, finance, and management information systems concentrations	Passive-like techniques
Active experimentation	Behavioral domain	Practical use, application	Specific, clearly defined, and practical goals		

(Affective Domain Environment), and people with active experimentation learn best where emphasis is on practical use and application (Behavioral Domain Environment).

Kayes (2002) further posits the presence of a relationship between the learning ability orientation and the outcome. The outcome of active experimentation is the achievement of specific, clearly defined and, practical goals. The outcome of abstract conceptualization is order, mental coherence, and clear thinking. The outcome of reflective observation is emancipation from assumptions, complete and complex perspectives. The outcome of concrete experience is self direction and self understading.

Rodrigus (2004) suggests that the Affective and perceptual domain environments prefer A-like teaching, while the symbolic and behavioral domain environments prefer P-like teaching. Based on this he posits that individuals with quantitative oriented interests (accounting, finance, and management information systems), relating to the symbolic and the behavioral domain environments would feel more comfortable with abstract conceptualization and active experimentation learning abilities. On the other hand, individuals with behavioral interests (marketing, management, and international business) relating to the perceptual and affective domain environments would feel more comfortable with concrete experience and reflective observations learning abilities. Table 6 represents a summary of the previously discussed relations.

Based on the previous discussions, and *since the objective of this paper is to examine the importance level of these techniques and their relative implications, as well as their degree of preference,* the following hypothesizes are generated and tested.

Preference of the active-like techniques
- H1a. Students enrolled in the business administration and marketing concentrations will rate the active-like techniques higher than students enrolled in the accounting, finance, and management information systems concentrations.

- H1b. Faculty teaching in the business administration and marketing concentrations   will rate the active-like techniques higher than faculty teaching in the accounting, finance, and management information systems concentrations.

Preference of the passive-like techniques
- H2a. Students enrolled in the accounting, finance, and management information   systems concentrations will rate the passive-like techniques higher than students enrolled in the business administration, and marketing concentrations

- H2a. Faculty teaching in the accounting, finance, and management information   systems concentrations will rate the passive-like techniques higher than faculty teaching in the business administration, and marketing concentrations

RESEARCH METHODOLOGY

The research method used included the use of a survey questionnaire among graduate and upper undergraduate students who are studying courses in the accounting and business majors in the American University in Cairo, as well as their professors. The objective of that questionnaire is to illustrate and examine the importance level of the ten teaching/learning techniques that were previously mentioned. The professors and students were asked to rate each technique on a Likert-like scale, ranging from "not important", "a little important", "somewhat important", "important", and "very important". It was believed that most of the participants would have had experience with all the ten techniques, since they are at the graduate and upper undergraduate levels.

The questionnaire is administered by 3 teaching/research assistants that will visit all the graduate and upper undergraduate classes in the management department in the American University in Cairo. The assistants will personally distribute the questionnaires in the classrooms and collect them after they are completed by the students. The assistants will visit each individual professor in his/her office and ask him/her to complete the questionnaire. The heading of the questionnaire stated that it is intended to measure the degree of preference of the professor, instructor or student, of the teaching methodology. In addition, the questionnaire will be distributed only to professors teaching courses, as well as students studying courses in the business and accounting majors in the America University in Cairo.

LIMITATIONS

The findings of this research manuscript are restricted to graduate and undergraduate students at one university. There is a need to replicate this study in various schools and universities to make the results more generalized.

REFERENCES

Biglan A (1973) The characteristics of subject matter in different academic areas, Journal of Applied Psychology, Volume 37 Number 2, pp. 195-203

Dunn R, Dunn K and Price G E (1975) Learning Style Inventory, Price Systems, Lawrence, KS

Fry R E (1978) Diagnosing professional learning environments: an observational framework for assessing situational complexity, unpublished doctoral dissertation, MLR No. 387081, Massachusetts Institute of Technology, Cambridge, MA

Hofstede G (1980) Culture's Consequences: International Differences in Work-related Values, Sage, Beverly Hills, CA

Holland R P (1989) Learner characteristics and learner performance: implications for instructional placement decision, in Shade, B.J.R. (Ed.), Culture, Style and the Educative Process, Charles C. Thomas Publisher, Springfield, IL, pp. 167-83

Jarrah F (1998) New courses will target transition to university, China Morning Post, 23 April, p. 28

Johnson H (1991) Cross-cultural differences: implications for management education and training, Journal of European Industrial Training, Volume 15 Number 6, pp. 13-16

Kayes D C (2002) Experiential learning and its critics: preserving the role of experience in management learning and education, Academy of Management Learning and Education, Vol. 1 No. 2, pp. 137-49

Kolb D A (1984) Learning Style Inventory Technical Manual, McBer, Boston, MA

Ladd P D and Ruby R Jr (1999) Learning style and adjustment issues of international students, Journal of Education in Business, Vol. 74 No. 6, pp. 363-7

Mainemelis C, Boyatzis R E and Kolb D A (2002) Learning Styles and Adaptive Flexibility: Testing Experiential Learning Theory. Management Learning Volume 33 Number 1, pp. 5-23

Pun A S L (1989a) Developing managers internationally: culture free or culture bound? Symposium presentation at the Conference on International Personnel and Human Resource Management, Hong Kong, 13 December

Pun A S L (1989b) Action learning in the Chinese culture: possibility or pitfall, paper presented at the 1989 Manchester International Human Resource Development Conference, Manchester

Reynolds M (1999) Critical reflection and management education: rehabilitating less hierarchical approaches, Journal of Management Education, Volume 23, Number 3, pp. 537-53

Warner M (1991) How Chinese managers learn, Journal of General Management, Volume 16, Number 4, pp. 66-84

Witkin H A, Moore C, Goodenough D R and Cox P W (1977) Field dependent and field independent cognitive styles and their educational implications, Review of Educational Research, Volume 47, Number 1, pp. 1-64

Related Content

The Concept of Modularity in the Context of IS Project Outsourcing

Shahzada Benazeer, Philip Huysmans, Peter De Bruynand Jan Verelst (2018). *Encyclopedia of Information Science and Technology, Fourth Edition (pp. 5317-5326).*

www.irma-international.org/chapter/the-concept-of-modularity-in-the-context-of-is-project-outsourcing/184235

Aspect-Based Sentiment Analysis of Online Reviews for Business Intelligence

Abha Jain, Ankita Bansaland Siddharth Tomar (2022). *International Journal of Information Technologies and Systems Approach (pp. 1-21).*

www.irma-international.org/article/aspect-based-sentiment-analysis-of-online-reviews-for-business-intelligence/307029

Intelligent System of Internet of Things-Oriented BIM in Project Management

Jingjing Chen (2023). *International Journal of Information Technologies and Systems Approach (pp. 1-14).*

www.irma-international.org/article/intelligent-system-of-internet-of-things-oriented-bim-in-project-management/323803

Sport Exergames for Physical Education

Pooya Soltaniand João Paulo Vilas-Boas (2018). *Encyclopedia of Information Science and Technology, Fourth Edition (pp. 7358-7367).*

www.irma-international.org/chapter/sport-exergames-for-physical-education/184433

A CSP-Based Approach for Managing the Dynamic Reconfiguration of Software Architecture

Abdelfetah Saadi, Youcef Hammaland Mourad Chabane Oussalah (2021). *International Journal of Information Technologies and Systems Approach (pp. 156-173).*

www.irma-international.org/article/a-csp-based-approach-for-managing-the-dynamic-reconfiguration-of-software-architecture/272764