

**How Adult Learning is Enhanced
in the Master of Business Administration
Aeronautical Program**

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Abstract

A study of seven characteristics and techniques which enhance learning in adults was conducted. Both the literature review and the results of a survey conducted at the Embry-Riddle Aeronautical University High Desert Center support the claim that these characteristics and techniques enhance learning in adult students.

How Adult Learning is Enhanced

The purpose of this paper is to discuss some of the strategies and methodologies for advancing learning. My focus will be on students enrolled in the Master of Business Administration in Aviation (MBA/A) program at the Embry-Riddle Aeronautical University (ERAU) High Desert Center.

At the heart of the MBA/A program is the goal to produce scholarly practitioners within the business community. Students are taught in an environment characterized by current management concepts, state-of-the-art business techniques, both academic and business research applications, and the full integration, synthesis and evaluation of business theory and practice. The successful MBA/A graduate is provided with a "tool kit" of knowledge and skills that will enable him to effectively compete and be successful in an aviation-related business setting.

The examples used in this paper are drawn from my experiences teaching the MBA/A ERAU program for the High Desert Center at the National Training Center (NTC) located at Fort Irwin, California. The students are primarily adult students ranging in age from 23 to 40 years old. The average age is 31. Most of the students are Army Officers holding the rank of either Captain (41%) or Lieutenant (38%). However, there are, or have been, Warrant Officers, enlisted personnel and military spouses enrolled in the program. Most of the students work around the "rotation schedule." The rotation schedule involves two weeks of intensive field training every month. Twice during the year there are "maximum leave" periods when personnel are encouraged to take vacation. The maximum leave periods are usually in June and December. Being in the field means actually participating in or observing the two week training conducted monthly by visiting military combat units at the NTC. When MBA/A ERAU classes are conducted on week nights, it is not uncommon for the student to leave work fifteen minutes before class begins, stop at a local fast food place for a sandwich, and then go straight to class.

The remainder of this paper is broken down into three sections. The first section will discuss the methodology used in this research. The second section deals with the findings of the research. The findings focus on the characteristics of adult students and techniques which enhance learning. These characteristics observed are as follows: they have competing responsibilities for their time; they have more life and work experience; they are not as flexible in their thinking; they are sensitive to the physical environment; they have made a momentous decision to return to school. The techniques employed to enhance learning are the use of appropriate industry standards, repetition of activities, replicating the work environment and challenging classroom assignments.

The third section is the "summary." This section will recap the major points and findings of this paper.

METHODOLOGY

Initially, a literature review was conducted at the California State University Library located at San Bernardino, California. My goal was to identify those things which enhance learning for adult students. From this literature review I was able to develop a list of characteristics of adult students as well as those techniques which enhance learning for adults. Once this was complete, the focus was to determine how best to take advantage of these characteristics to enhance learning as well as to implement those techniques which enhance learning.

A survey instrument was developed to help determine if those characteristics and techniques did indeed contribute to the learning process for adults. This instrument was completed by the current students, 28 in total, in the ERAU MBA/A program at the High Desert Center. In addition, three faculty members of the High Desert Center also completed the survey instrument. The student responses were broken into categories reflecting data from officers (24) and enlisted (4) for comparison purposes.

The survey instrument asked seven questions relative to learning. The respondents were asked to what degree (strongly agree to strongly disagree) they felt that each of the characteristics or techniques identified enhanced the learning process. The point scale given for each response was four (4) for strongly agree; three (3) for agree; two (2) for disagree; and one (1) for strongly disagree. A mean of three would indicate a general agreement that the technique or characteristic enhanced learning.

It was my research hypothesis that each of the three categories of respondents, faculty, officer, and enlisted, would obtain a mean of at least three on each of the seven questions that pertained to adult learning. See Table 1 for the results and the Appendix for the survey instrument.

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Table 1

Survey Results

<u>QUESTION</u>	<u>MEAN</u>		
	<u>FACULTY</u>	<u>OFFICER</u>	<u>ENLISTED</u>
1	3.33	3.21	3.50
2	4.00	3.29	3.50
3	3.67	3.67	3.75
4	3.67	3.42	3.50
5	4.00	3.38	3.75
6	4.00	3.08	3.00
7	4.00	3.58	3.25
8	NA	3.21	2.75
9	3.33	1.83	2.75
QUESTIONS 1 - 7	AVERAGE MEAN		
	3.81	3.38	3.46

The questionnaire also had two other questions. One question asked if their thinking is as flexible today as it was when they were twenty-one (21) years of age. The other question asked whether or not the decision to go back to school was made lightly. These two questions center around characteristics of adult students and a general discussion of these topics takes place in the next section of this paper. However, the responses to these two questions were not treated in the same manner as the other seven questions dealing with those things that were identified to enhance learning.

The Findings

The ERAU MBA/A High Desert Center students are largely adult students. There are a variety of characteristics that generally distinguish adult students from those students who graduate from high school and go directly to college. To the degree that these characteristics can be accommodated and used, the learning process will be enhanced.

The first characteristic is that adult students often have competing responsibilities for their time (Merriam, 1994). Quite often these students are full time professional employees within their organization. To accommodate the work schedule at the NTC, classes are taught during the evenings, weekends, or are arranged to take other job related conflicts into account. Classes are not taught when there is rotation training in the field. Classes are taught during that two-week window each month when there is no rotation field training. In addition, concentrated elective courses are frequently taught during the maximum leave periods. By concentration, I mean a class is conducted for nine hours per day, for five consecutive days. Many students tell us they like these concentrated classes. Without these accommodations, it is likely that either not as many students would enroll in the program, or they would miss many classes during the semester. In the survey responses, faculty, officers, and enlisted personnel felt that such accommodations enhanced the prospects for learning. The respective means were 4.00, 3.58 and 3.25, well above the agree mean of 3.00.

The second characteristic is that adult students generally have more life and work experience. This has proven to be beneficial in the classroom setting (Kramer and Bacelar, 1994). Many students can relate business theory to their own practical work experience about the subject (Bowden and Merritt, 1995). For example, students in the ABA 604, International Management course taught in February 1997 at the High Desert Center were asked to recommend the best case study applicant for a specific job. This involved first teaching basic knowledge about the recruiting and selection process, then applying it to a case study. Students were able to synthesize the textbook methods and together with their practical work experience, render a judgement as to which candidate would be the best to select for the particular position. In the survey, the faculty, officers and enlisted personnel felt that such experience enhanced the prospects for learning. The respective means were 4.00, 3.38 and 3.75, well above the agree mean of 3.00.

The third characteristic is that adult students are not often flexible in their thinking. The Berg, et al (1994) article discusses the pros and cons of this argument. After all, most people will foster and promote those things that have brought them success in the past and avoid and discount those things that have brought them failure in the past. Through their living, the notions of just and unjust, right and wrong, success and failure, fact and fiction, and good and bad may have solidified. These notions need to be more fluid for learning to occur. In the MBA/A classes dealing with human resource management there are opportune times at the High Desert Center to stir the discussion of "merit factors" and current topics such as "women serving in combat roles." These discussions often evoke emotion and passion. However, when the discussions are complete, shades of gray often replace perspectives that were black and white before. These "chinks" in the armor open the pathway for reason to replace blind belief.

The fourth characteristic is that adult students tend to be sensitive to their physical environment. Factors such as heat, cold, light, and noise all can adversely affect learning (Cash, 1994). Fortunately, at the High Desert Center all of the MBA/A classes are taught in a well lighted, well ventilated, and temperature controlled facility. In the survey conducted, the faculty, officers and enlisted personnel felt that good learning environments enhanced the prospects for learning. The respective means were 3.67, 3.67, and 3.75 and well above the agree mean of 3.00.

The fifth characteristic is that many adult students have made a momentous decision to return to school. The decision may involve quite a personal sacrifice (Harringer, 1994). It takes time away from their work, family, and leisurely pursuits. Faculty members need to be respectful of this. Academic standards should not be sacrificed, but reasonable accommodations need to be made to assist the adult learner in their pursuits. The faculty needs to insure that the time spent in the classroom is not "busy work" and always treat adults as adults. They certainly deserve and are entitled to such respect.

Within the classroom setting there are a variety of techniques that can be used to enhance the adult learning process itself. The subsequent discussion will identify several of these techniques and their application to the classroom.

The first technique is to use the appropriate industry standards and/or procedures (Bowen and Merritt, 1995). MBA/A classes such as ABA 511 Operations Research, ABA 517 Accounting for Decision Making, and ABA 518 Managerial Finance, all have extensive statistical and financial procedures which have reasonably well defined applications in the business world. In the survey conducted, the faculty, officer and enlisted personnel felt that application of these standards enhanced the prospects for learning. The respective means were 4.00, 3.08, and 3.00 with two above and one equaling the agree mean of 3.00.

An excellent teaching tool in this regard can be found in the textbook used in the Managerial Finance class "Essentials of Managerial Finance." Each chapter has an integrative problem which captures the key teaching points from the chapter and incorporates them into a fictitious problem in a business setting. At the High Desert Center these integrative problems are used as a tool to teach both the procedure and business application.

The second technique is to help insure that the student maintains proficiency with the skills and knowledge learned. One way to sustain this proficiency is through repetition accompanied by "concentration and active mental reaction to the subject matter being repeated" (Staton, 1960, p.17). A good example of how to apply this technique can be found in the course Operations Research. At the end of each chapter in the textbook there are many problems that can be assigned to the students to work. By examining these different problems, students are able to reinforce what was learned. Different problems have different variables which require analysis by the student to correctly apply procedures. In the survey conducted, the faculty, officers and enlisted personnel felt that such repetition enhanced the prospects for learning. The respective means were 4.00, 3.29 and 3.50 and well above the agree mean of 3.00.

Classes which are not mathematical generally will require a different approach to maintain student proficiency. One such approach occurred when the ABA 590 Graduate Seminar in Strategic Planning was conducted (September 1996) at the High Desert Center. After receiving instruction on strategic planning, students were required to analyze and rewrite portions of the NTC Strategic Plan. Rewriting the strategic plan had both a written and oral assignment. The actual rewritten plan and oral presentation provided the framework for repetition.

The third technique is developing a classroom learning situation which replicates the work or life situation (Brookfield, 1986). It is not my intent to suggest that every assignment should replicate a work situation. but that replicating a work situation, in some instances is beneficial. A good example of this occurred when the ABA 607 Human Resource Development class was taught at the High Desert Center. One assignment involved a group project where students evaluated the human resource practices of a company.

In a work environment, the business success is often not dependent upon the effort of one. Rather, the efforts of many usually result in the success or failure of the business. A classroom group project requires time management, assignment of tasks, synthesis of input, agreement upon assumptions, and agreement upon the conclusions. All of this take place in a work environment. Such assignments not only reinforce the learning objectives, but also provide the student with actual skills that can be used in the work place. In the survey conducted, the faculty, officers, and enlisted personnel felt that such replication enhanced the prospects for learning. The respective means were 3.33, 3.21, and 3.50 and well above the agree mean of 3.00.

The fourth technique is that learning needs to be challenging to the student. Classroom assignments that are difficult and intellectually stimulating may be both exciting and motivating to the student. Such assignments can help build competence and confidence in the student. In the survey conducted, the faculty, officers, and enlisted personnel felt that such challenges enhanced the prospects for learning. The respective means were 3.67, 3.42 and 3.50 and well above the agree mean of 3.00.

Challenging assignments can take many forms. Group projects, oral presentations, and research papers may all be challenging.

Summary

The make up of the college student population continues to change. The number of adult students continues to grow. There are a variety of things that can be done to enhance the prospects of effective learning of adult students. Those things are:

- 1) Try to accommodate the working schedule of adults.
- 2) Draw upon the life and work experience of adults.
- 3) Teach in a good physical environment.
- 4) Use industry standards when teaching.
- 5) Teach by repetition.
- 6) Replicate work or life situations when teaching.
- 7) Learning needs to be challenging to the student.

When these seven things occur, the prospects for learning are enhanced according to the faculty and MBA/A students in the ERAU High Desert Center.

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APPENDIX

Survey Instrument

LEARNING SURVEY

- 1) Classroom instruction/projects which replicate work related duties enhance the learning process.

Circle One

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

- 2) Classroom instruction/projects which require repetition, such as, accounting or statistical problems, enhance the prospects of learning the skill or technique.

Circle One

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

- 3) Classroom facilities which are comfortable, lighted, ventilated, and have climate control enhance the learning process.

Circle One

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

- 4) Classroom assignments/projects that are challenging enhance the learning process.

Circle One

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

- 5) My ability to effectively complete classroom assignments/projects is enhanced when I have related life, work, or other education experience to draw upon.

Circle One

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

- 6) The learning process is more efficient when the appropriate industry standard or procedure is taught.

Circle One

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

- 7) By scheduling classes around work, such as the rotation schedule, the learning process is enhanced.

Circle One

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

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8) Returning to school was not a decision that was made lightly.

Circle One
STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

9) I am not as flexible in my thinking as I was at age 21.

Circle One
STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

DESCRIPTIVE INFORMATION

My age is: _____

The number of classes that I have completed in the MBA/A ERAU program is:

Select one: My military rank is: _____

Other: _____