

## AN EMPIRICAL INVESTIGATION OF LEARNING STYLES IN MARKETING EDUCATION

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### ABSTRACT

This study empirically analyzed student preference for various learning activities based on the student's individual learning style, as measured by Kolb. Eighty-five undergraduate marketing students were surveyed. Results indicate that preference for learning activities used in the marketing classroom does differ based on a person's learning style. These preferences can clearly and logically be explained by understanding the descriptions of each learning style.

### INTRODUCTION

The trend in marketing education continues to move from a traditional, theoretical approach to a practical, experiential approach (Gaidis and Andrews 1990). Marketing professors use a variety of "hands-on" approaches to assist in student learning, such as computer simulations, case analysis, and client-centered group projects. A review of the effectiveness of these techniques, based on findings from the marketing education literature, will follow. Overall effectiveness of various marketing education techniques is analyzed in the literature, yet effectiveness of each technique may vary by the learning style of individual students. This study presents an empirical investigation of student preference for various educational approaches used in marketing classes based on individual learning style. Specifically, this paper presents:

- (1) A summary of relevant literature on the effectiveness of various marketing education techniques.
- (2) A summary of studies considering the relevance of learning style in marketing education.
- (3) A brief history of the theoretical development of learning style.
- (4) A description of the study's methodology.
- (5) Results and direction for future research efforts.

### Effectiveness of Marketing Education Techniques

Numerous studies have considered the effectiveness of group projects in marketing education (Malhotra, Tashchian and Jain 1989; Ramocki 1987; Dommeyer 1986; de los Santos and Jensen 1985; and Goretsky 1984). The general consensus from these studies is that students prefer group projects over the individual format and that group projects significantly benefit the student learning process.

Other educational techniques have been analyzed. Henke, Locander, Mentzer, and Nastas (1988) considered the benefits of guest speakers, field trips to corporations, video tapes, films, and cases. Karns (1989) found that marketing students preferred guest speakers, class discussions, simulations, and client projects, while the least preferred learning activity was multiple choice tests.

These studies of the effectiveness of alternative approaches to learning and student preference for various learning activities have not considered individual differences in learning style. Based on a student's particular learning style, he (she) may prefer various educational techniques.

### Use of Learning Style in Marketing Education

Tom and Calvert (1984) analyzed the effect of students' learning style, as measured by Kolb's Learning Style Inventory, on students' performance, as measured by grades. Results indicate that students measuring higher on the reflective observant and abstract conceptualization ends of the learning style continuum perform better. This learning style orientation, called an Assimilator, is less focused on people and more concerned with ideas and concepts. Logical, sound theory, concrete, sequential ordering, attention to detail, facts and figures all characterize this person. Tom and Calvert also considered the instructor's learning style and found that marketing professors use similar teaching formats, which create similar learning environments, regardless of their own personal learning style.

Another study reported on the relationship between

student learning style and student acquisition of marketing knowledge (Sood and Valentine 1983). Again, Kolb's Learning Style Inventory (LSI) was used to determine learning style, although a modified version of the LSI was used. Results demonstrate that student performance (acquisition of marketing knowledge as measured by student grades) is independent of learning style.

Neither of these studies on learning style in marketing education considered the relationship between student learning style and student preference for various educational techniques. One study on learning styles in marketing education suggested a theoretical framework for understanding how the effectiveness of various approaches to marketing education may vary by student learning style (Frontczak 1990). This work did not offer any empirical findings.

#### History of Learning Styles

The concept of learning styles has been thoroughly researched in the discipline of education. Scholars in education have concluded that the student's learning process is a function of three factors - the learning environment, teaching style, and student learning style. The interaction of these three elements determines a student's performance. The work of Gregorc (1982), Dunn and Dunn (1975), and Kolb (1974) represents the foundation for much of the research on learning style.

Gregorc (1982) developed "The Gregorc Style Delineator" which suggests that people have a preference for either "abstract" or "concrete" perception and a preference for "sequential" or "random" ordering of information. Combining the dimensions of perception and ordering, Gregorc identifies four patterns of learning style.

Dunn and Dunn's (1975; 1978) extensive work in the field of learning styles suggests that a person's manner of absorbing and retaining information, facts and concepts is a function of his (her) learning style. Finally, David A. Kolb developed a Learning Style Inventory (1974) which identified two dimensions of learning style.

Perception: People perceive through Concrete Experience ("feeling") or through Abstract Conceptualization ("thinking").

Processing: People process through Active Experimentation ("doing") or through Reflective

Observation ("watching").

Therefore, learning results from the way people perceive and then process what has been perceived. In putting together these two dimensions, a four-quadrant model of learning styles is formed (see Figure 1).

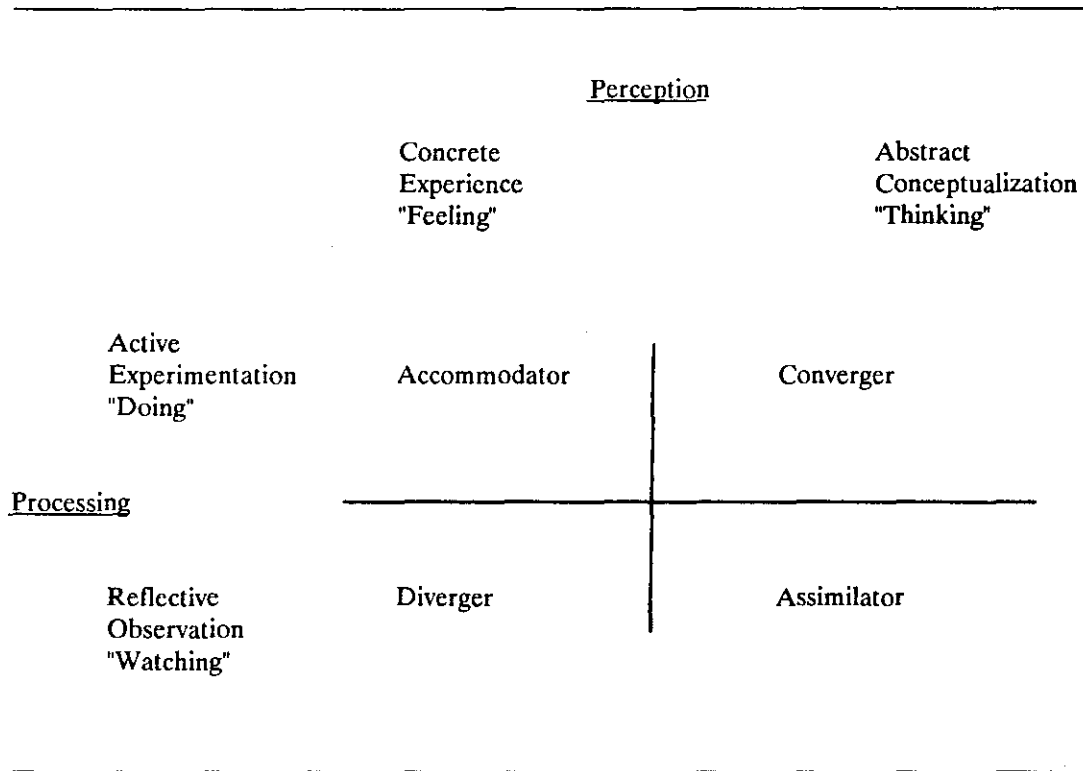
The Learning Style Inventory measures a person on each of the four dimensions using a self-description format based on 12 questions with four alternative responses (Kolb 1976). Respondents are asked to rank the alternatives according to how well they think each fits with how they would go about learning something. Based on the results of this LSI, a "Learning-Style Grid" can be formed for each person. The four basic learning styles developed by Kolb are:

Diverger: This learning style emphasizes concrete experience ("feeling") and reflective observation ("watching"). This orientation stresses adaptation by observation rather than action. These individuals tend to be feeling-oriented, interested in people, tend to desire harmony, avoid conflict and process information based on their past and present experiences.

Assimilator: This person's dominant learning abilities are abstract conceptualization ("thinking") and reflective observation ("watching"). This orientation is less focused on people and more concerned with ideas and abstract concepts. Logical, sound theory, concrete, sequential ordering, attention to detail, facts and figures are important to this person. They process information concretely.

Converger: The convergent learning style relies on abstract conceptualization ("thinking") and active experimentation ("doing"). This person likes problem solving, decision making, and the practical application of ideas and theories. Convergents would prefer to deal with technical problems and "figure things out" rather than social, interpersonal skills. They process information by kinesthetic and tactile "doing".

FIGURE 1  
KOLB'S LEARNING STYLE DIMENSIONS



Accommodator: The fourth learning style emphasizes concrete experience ("feeling") and active experimentation ("doing"). These individuals like doing things and getting involved in new experiences. They seek opportunities, take risks, and learn more by intuitive trial and error. These individuals are at ease with other people.

Kolb proposes that every person has a dominant learning style which influences all aspects of their life. However, all people also possess aspects of all four learning styles.

#### METHODOLOGY

##### Research Instrument

Kolb's Learning Style Inventory (1976) was used in this study to measure the particular learning style of each student. Although some criticism of Kolb's LSI has

been found in the literature (Freedman and Stumpf 1978), this instrument was selected because of its widespread use in education and management literature.

The authors then designed a questionnaire which primarily measured students' preference for various educational activities used by marketing professors. Students were asked to rate 14 items (such as traditional lectures, field trips, and group projects) on a 7-point scale, where 1 equals least preferred and 7 equals most preferred. (The 14 learning activities are listed in Table 1). These 14 items were selected from previous studies (Frontczak 1990; Karns 1989).

Students were also asked to select one of four projects which they would most prefer (individual term paper, group term paper, individual field work project, or group field work project). These four

TABLE 1  
LEARNING ACTIVITIES

Traditional Lecture	Group Case Analysis	Reading Assigned Text
Individual Project	Games or Simulations	Multiple Choice Exam
Group Project With A Client	Field Trips	Essay Exam
Guest Speaker	Video Tapes or Films	Group Project
Individual Case Analysis	Class Discussion	

projects were selected because they may correspond to the four different learning style orientations. The hypothesized preferences would be as follows:

- Divergers - Group term paper
- Assimilators - Individual term paper
- Convergers - Individual field work project
- Accommodators - Group field work project

#### Sample

A convenience sample of undergraduate junior and senior marketing students enrolled in an urban college located in the western United States was selected. The questionnaire was administered in six upper-division marketing classes. Prior approval for conducting the study was received from each marketing instructor. Eighty-five completed questionnaires were used for data analysis.

### RESULTS

#### Student Learning Styles and Preference For Learning Activities

Before considering the differences in preference for learning activities by student learning style, overall results from the study will be presented.

Results from Kolb's Learning Style Inventory indicated that 16.9% of the respondents are Divergers (individuals who learn by observation, are feeling-oriented, and enjoy working in groups), 37.3% are Assimilators (individuals who are less focussed on people and learn by concrete sequential ordering of information), 20.5% are Convergers ("hands-on" individuals who like to integrate theory and practice, rather than deal with

interpersonal skills), and 25.3% are Accommodators (individuals who enjoy working with people and learn by doing). According to Kolb (1984), often Accommodators are involved in careers in marketing, although marketing researchers and planners are often Assimilators, which may explain the dominance of these two learning styles categories for the sample of marketing majors.

Table 2 shows the overall student preference for each of the 14 learning activities. "Field Trip" was the most preferred activity and "Reading Assigned Text" was the least preferred activity. These results are somewhat similar to those found by Karns (1989). Overall student preference for the four types of projects, indicated by the percentage of the sample selecting each, was:

Individual term paper	30.2%
Group field work project	30.2%
Group term paper	14.0%
None of the above	14.0%
Individual field work project	11.6%

Perhaps not surprisingly, some students would prefer not to do any type of class project.

#### Preference For Learning Activities By Learning Style

The primary purpose of this paper is to analyze the effectiveness of various marketing education techniques for individuals with different learning styles. Results indicate that based on an individual's learning style, preference for various learning activities does differ. Table 2 also shows the mean scores for student preferences of learning activities

by the four learning styles suggested by Kolb. Table 3 summarizes the important findings from Table 2, by showing which learning activities were most preferred by individuals with different learning styles. For example, Assimilators had the highest mean preference for the traditional lecture. This finding was expected by the authors, since Assimilators enjoy the traditional structured classroom (Kolb, 1984). A discussion of the preferences for each of the four learning styles will help explain Tables 2 and 3.

Although many students seem to prefer guest speakers as a learning activity, Divergers rated guest speakers the highest overall. Divergers learn by listening and are interested in people, therefore, guest speakers would seem to be a logical selection of an educational technique for these individuals.

Assimilators, concrete sequential thinkers, learn by "watching" and "thinking." This study found that these learners most preferred the traditional lecture and reading the assigned text, items rated fairly low by the other learning styles. Since Assimilators like to ask the question, "What?" in order to obtain accurate information, their preference for traditional lectures and text book reading is logical. These individuals also preferred video tapes and films, which makes sense given their need to know what "experts" think. Finally, since Assimilators enjoy attending to details and facts, multiple choice tests are a reasonable preference for them.

Convergers, "hands-on" learners, like to ask the question, "How does it work?" Their preference for group projects with a client is logical, since these types of projects would allow the student to find out first hand how various companies operate. Also, as "hands-on" learners, they would enjoy activities such as questionnaire development, data collection and analysis, and designing creative and media plans for advertising campaigns, which are often the basis for client projects.

Finally, as a risk-taker who likes new experiences, Accommodators like to ask the question, "What if?" The foundation of any case analysis, whether individual or group, is to allow a person to answer that particular question, so the preference for case analysis is logical. Also, since Accommodators are at ease with people, learning activities such as class discussions, field trips, and group projects would allow the interpersonal interaction desired by these learners. Since Accommodators relish change and like to "imagine what

might be," the preference for games and simulations makes sense. The preference for an individual project is somewhat surprising, since these learners enjoy working with others. However, the more creative nature of projects, in general, would be more fun for these people, than the structure of a traditional lecture. Finally, essay exams would allow these learners the opportunity to answer more "what if" questions.

Based on an individuals learning style, the following shows the results for the general type of project most preferred:

1. Divergers preferred an individual term paper and a group field work project equally.
2. Assimilators preferred an individual term paper.
3. Convergers preferred a group field work project.
4. Accommodators preferred a group term paper.

The finding related to Assimilators is as expected, however, the other three findings are somewhat different than expected. Convergers, "hands-on" learners, did prefer the field work project, which is a more experiential project. Convergers are willing to work with others when these people are task oriented and move quickly, making group projects a possibility for these learners. Accommodators, learners who are very comfortable with people, did select a group project. Finally, the unexpected results for the Divergers may be based simply on the small sample size for these individuals.

Findings from this study indicate that individual learning style does influence the preference for particular learning activities in the marketing classroom.

## CONCLUSION

This study has empirically examined the influence of individual learning style on preference for various learning activities in marketing education. Differences in preference for educational techniques were found, based on a person's learning style, as measured by Kolb. Two main questions remain

TABLE 2  
MEAN PREFERENCE FOR LEARNING ACTIVITY BY LEARNING STYLE

	Divergers	Assimilators	Convergers	Accommodators	Overall Mean
Field Trips	5.85	5.27	5.47	5.90	5.45
Games or Simulations	5.07	5.03	5.41	5.90	5.38
Guest Speaker	5.57	5.03	5.23	5.33	5.26
Class Discussions	5.07	4.87	5.23	5.45	5.14
Video Tapes or Films	5.14	5.34	4.88	5.24	5.12
Individual Case Analysis	4.36	4.6	4.15	4.7	4.60
Multiple Choice Exam	3.78	4.8	4.7	4.48	4.57
Essay Exam	4.21	4.5	3.88	4.81	4.41
Group Case Analysis	4.43	4.07	4.12	4.71	4.25
Individual Project	4.28	4.17	4.23	4.38	4.24
Traditional Lecture	3.14	4.6	3.82	3.90	4.02
Group Project With A Client	3.46	4.0	4.35	4.09	3.92
Group Project	3.64	3.6	3.88	4.48	3.88
Reading Assigned Text	3.28	3.63	2.76	3.19	3.31

regarding the impact of learning styles. First, what can marketing educators do in the classroom, knowing that students with different learning styles have clear preferences for diverse educational techniques? Educators would differ in their response to this

question. The first step for marketing educators is to realize these differences do exist in each class. Marketing professors could offer a variety of learning activities in each class. A professor could actually allow each student to weight each learning

TABLE 3

PREFERENCE FOR LEARNING ACTIVITIES BY LEARNING STYLE

Divergers	Assimilators	Convergers	Accommodators
Guest Speaker	Traditional Lecture	Group Project with a Client	Individual Case Analysis
			Group Case Analysis
			Games or Simulations
	Reading Assigned Text		Class Discussion
			Field Trips
	Video Tapes and Films		Group Project
			Essay Exam
	Multiple Choice Exam		Individual Project

activity. In courses where multiple sections are offered, different course formats could be arranged and listed in the schedule each term. The students could then self-select the desired format, such as a case course, individual project, experiential project and so on. Also, professors can encourage students to be flexible in their learning, explaining the value of an eclectic approach to teaching marketing. If students (and professors) learned to be more flexible in the classroom, they will be able to better cope with different learning activities and individuals with different learning styles in their work environment.

A second important question remains for the marketing educator. Just because someone prefers a particular learning activity, which may match their learning style, does that mean they will "learn best" by that technique? Further research on this difficult question is needed.

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