

PROACTIVE INHIBITION TO LEARNING MARKETING: AN ASSESSMENT AND A REMEDY

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ABSTRACT

By the time students take their first marketing course, they have been socialized for more than half their lifetime to regard marketing with deep suspicion. The phenomenon of older learning blocking new learning is known as proactive inhibition and provides a reasonable explanation for the failure to learn that many students exhibit in a typical Principles of Marketing class.

A 24-item pre-and-post questionnaire was applied in the Principles of Marketing classes of five instructors at three different universities, and involved 131 students. An extensive assessment revealed that, while knowledge shifts were usually in the direction expected, the magnitude in many areas seemed unreasonably small.

The authors suggest that old material does not necessarily become incorrect when new material is learned, and that by helping the student recall the old along with the new can help overcome the obstacle of proactive inhibition. A second remedy might involve the series of steps typically involved in error analysis: development of awareness of the incorrect (old) and correct (new) way, progressive discrimination of the old and new way, practice of the new way, and assessment of the result. Surely there are more remedies to be uncovered through further research.

INTRODUCTION

Every American is exposed to criticism of marketing efforts from the time they begin to comprehend language. By the time college students take their first marketing course, they have been socialized for more than half their lifetime to regard marketing with deep suspicion. They have heard that marketing is bad because it is a trick to sell us things we don't need. It is a combination of advertising and sales. Advertising is misleading and/or deceptive. Salespeople try to separate us from our money.

These assertions are imbedded in young minds through media stories which create and solidify beliefs, and beliefs formed in early years and reinforced hundreds of times are resistant to change. When a marketing professor enters the classroom to teach a totally different view, learning is likely to suffer. One explanation of this lack of learning is that the student may be very resistant to learning new material that refutes everything learned for over half a lifetime. Dailey and Kim (2001), for example, found that the Principles of Marketing class produced a "relatively low absolute increase in overall student market orientation" (p. 59). Ferrell and Gonzalez (2004) studied students' perceptions of marketing in a Principles of Marketing class on the first day of class, before the topic of marketing was introduced, and found that students believe marketing comprises selling, advertising, and promotion. Further, half of their respondents believed that marketing was a "bad business practice" (p. 119), and

one-fourth of the respondents thought marketing was a "poor career choice" (p. 119).

The phenomenon of older learning blocking new learning is known as proactive inhibition and, when the concept is subjected to appropriate assessment, it provides a reasonable explanation for the failure to learn that many students exhibit in a typical Principles of Marketing class.

Background on Proactive Inhibition

It took some time for the idea that prior learning interferes with new learning to become accepted as a major principle of learning. The dominant theory of retention for centuries was the "decay theory" of memory trace, which asserted that the passage of time was the major variable affecting learning and forgetting. The pioneering work in the interference theory (i.e., that old learning interferes with new learning) was done by Dallenbach, who used a period of sleep time as an independent variable in the recall of nonsense syllables by students (Jenkins and Dallenbach 1924). Students who had been asleep were better able to recall than those who had been engaged in other tasks. Dallenbach's subsequent work demonstrated that, given the same task and time to recall information, cockroaches that were sedated in the meantime performed better than those who were active in other tasks during the entire time (Minami and Dallenbach 1946).

Lyndon (1989) called this proactive inhibition, and defined it as a “powerful, automatic, and essential brain mechanism that protects the knowledge base.” In the words of a later review (Nicholls and Ward 1998), “it is a disbelief mechanism” that prevents what an individual knows (or thinks they know) from change. Without it, a person’s knowledge base would be forever changing in the face of a constant barrage of new, incoming and frequently conflicting information. In other words, proactive inhibition prevents the association of conflicting ideas from occurring, and inhibits the recall of knowledge which is in conflict with prior knowledge.

Unfortunately, the knowledge protection and maintenance system protects all prior knowledge, correct as well as incorrect, from change. Thus, if students were to assert that they have their own way of studying or doing any other task and do not wish to learn a new one, they would be showing evidence of proactive inhibition at work. The final section of this paper suggests some ways to deal with this difficulty.

More recent work in proactive inhibition has involved a variety of settings in which skill, knowledge, or behavioral routines were involved. They include: the learning of mathematics (Postman and Gray 1977; Drucker, McBride, and Wilbur 1987), science (Rowell, Dawson, and Lyndon 1990), spelling (DeMasters, Crossland, and Hasselbring 1986), athletic and sports performance (Hannin, Korjus, Joust, and Baxter 2002), artistic performance (Khan et al. 1995), motor vehicle driving (Lourens 1992), working with computers (Zapf, Brodbeck, Frese, Peters, and Prumpers 1992), speech therapy (Lyndon and Malcolm 1984), driver training (Lyndon 1989), overuse and sports injuries (Purdum 1989; Khan et al. 1995), postural problems (Gieck, Foreman, and Saliba 1989), foreign language learning (Chung-yu 1976), and management training and organizational change (Newstrom 1983; West 1994).

Many of these studies used a very small number of students as subjects (i.e., between 12 and 106), and they did not investigate the use of proactive inhibition as an explanation for failure to learn marketing in the classroom. Therefore, it seemed that small scale research involving students at three universities might prove to be useful in efforts to improve marketing education.

Background on Assessment

Most marketing professors have not only worked to stay current with the field, but also have morphed from being the “sage on the stage,” to the “guide by the side.” But while most teachers have adapted to changes in the discipline and in the practice of instruction, many have resisted or ignored the calls for assessment. Assessment is probably more than simply the latest fad. The AACSB’s question, “do your students know, and can they do, what their degrees imply?” seems to be a very reasonable

question, and one that many professors find difficult to answer.

At a former institution with which one of the authors was affiliated, the school was in the early stages of assessment. A teaching manual had been developed for the undergraduate Principles of Marketing course, as a first step in standardizing the principles offering. As a part of this process, desired outcomes were developed. These course outcomes were driven by the identification of two fundamental purposes of the Principles of Marketing course at this school: (a) to provide a knowledge foundation in marketing (both for those intending to major/minor in marketing, and potentially as the sole background in marketing for other majors/minors), and (b) to serve as a recruiting tool for marketing majors.

In order to satisfy the first objective, students completing the Principles course would leave the course understanding, at minimum:

- a. An adequate current, definition of marketing, demonstrating that the basic nature of the discipline is understood,¹
- b. Marketing is both an organizational concept and a managerial function,
- c. Marketing is equally applicable to both services and products, across both profit-making and nonprofit organizations,
- d. The role of buyer behavior and research in marketing,
- e. Marketing’s segmentation, targeting, and positioning approach to strategy,
- f. The marketing mix, as the basic tool kit of the marketer,
- g. The various jobs available to marketing majors, and
- h. Where marketing fits in the organization, and how it relates to other parts of the organization.

The objective of recruiting marketing majors relies largely on the development of a positive attitude toward marketing as a business activity. Since several of the first objective’s knowledge elements affect attitude, they also serve the second objective, the recruiting function. A study of our students’ major selection processes echoed findings from the literature (Stafford 1994; Kohli 1995; O’Brien and Deans 1995; LaBarbera and Simonoff 1999; Kleine 2002) which revealed that the selection of a major by undergraduate students is often driven by perceptions of career opportunities, and students’ perceptions of the image held by those in their chosen field. It seems clear, then, that to satisfy the recruiting function, several other aspects of the course need to be considered:

- i. Marketing needs to be seen in a positive light;
- j. The course must be fun, consistent with its pedagogical requirements;
- k. The marketing curriculum must be clear to students, must be exciting, and must have a clear relationship to the job market; and

1. The importance of marketing to the firm and to society must be made clear.

THE STUDY

The study was devised as a way to assess the fairly broad list of outcomes listed above, and determine how much of the results could be attributed to proactive inhibition. As a first step, the authors began to develop a research instrument. The need was for a short, easily answered instrument students could reasonably complete prior to the course and also at the end of the course, so that changes pre-to-post could be tracked. The requirement for brevity eliminated many of the “define AIO” sorts of questions that might have otherwise seemed attractive.

Questions tapping both the knowledge and attitude/belief objectives were solicited from marketing faculty members. These questions were tested with Principles of Marketing classes for understanding and reliability. The questions were discussed in some classes to elicit student input as to understanding and clarity. Other classes completed the preliminary questionnaires to identify redundancies and assess reliability. Questions that were confusing, unreliable, or redundant were eliminated. The final step was to convert all questions to a common form because, in the original form, the knowledge items had been Likert-type questions, and the attitude/belief items had been semantic differentials. This mixture of scale types had required an additional set of completion instructions, which caused confusion among respondents. Once all items were converted to Likert-type scales, they met tests for clarity and reliability.

The final instrument is shown in the Appendix. The eleven items in Section I in the questionnaire tap marketing knowledge, and the fourteen items in Section II tap attitudes toward and beliefs about marketing. Each questionnaire item in the Appendix shows the learning objective to which it is related. Objectives h and k (“Where marketing fits in the organization . . .” and “The marketing curriculum . . . ,” respectively) did not produce useful questionnaire items, and so were not in the questionnaire.

The hypothesis of the study was that, as the course progresses, the students’ understanding of the subject matter in the course increases, and there should be increasing disagreement with all the statements in the knowledge section, except the last item (“why people buy . . .”). The best answers to all of these items are at the extreme ends of the scale, but exceptions can be found to almost any general proposition concerning marketing and they might be reflected in students’ responses.

In the attitude/beliefs section, the expectation is that the Principles of Marketing course would produce increasing agreement with these items: (a) marketing is very important to the global economy, (b) marketing employs people like me, (c) marketing is interesting, (d) marketing is very important to service firms, (e) marketing is very

important to the government, and (f) marketing is very important to firms that make products. Also in that section, it is expected that progression through the Principles of Marketing course would produce increasing disagreement with these items: (a) marketing is unnecessary, (b) marketing is sleazy, (c) marketing is easy, (d) marketing is less essential than it was 20 years ago, (e) marketing is very abstract, (f) marketing is not at all important to non-profit organizations, (g) marketing controls people’s buying behavior, and (h) marketing jobs are scarce.

This questionnaire was applied in the Principles of Marketing classes of five instructors at three different universities, and involved 131 students. Selection of class sections was based on the instructors’ willingness to cooperate. Willingness means that, although the subjects are distributed fairly widely across schools and classes, this is a convenience sample that disavows any claim that responses or results are representative of students, faculty, or Principles of Marketing classes as a whole. The sample of 131 students presented in this analysis includes only those students completing both the pre-test and the post-test, using the final form of the instrument.

FINDINGS

Reliability and Validity

Instrument reliability was assessed using Cronbach’s alpha, and the results were satisfactory. One large section of a principles course was used for validation purposes. This section was not given the pre-test, and so was not used in any of the other analyses presented here. Table 1 provides detail on the instrument reliability as measured in this use of the instrument.

Given the instrument development process, face validity is assured. Moreover, there is evidence of validity from two other sources: (a) the means shift, pre to post is in the expected direction and (b) the post-test marketing knowledge-based scores are appropriately associated with course grade. If one examines only the means shift, pre to post, eight of the eleven knowledge items reach the .05 level of significance (reference Table 4). Figure 1 (discussed later) shows that the shifts for these eight items are in the “correct” direction.

Course grades from the “validation only” principles section provide a measure of convergent validity. In this semester-long principles course, three multiple choice exams, roughly half text-based and half-lecture based, were administered and summed to yield a “course exam score.” Because various group and individual written assignments were not included in this score, it may not have been the same as the overall score used to assign a letter grade. The course exam score was used as the criterion variable in a step-wise regression with the knowledge items as predictors. The results are shown in Table 2.

As Table 2 indicates, the step-wise regression analy-

TABLE 1 RELIABILITIES			
	Cronbach Alpha	Sample Size	
Knowledge Items	.7633	64	
Attitude-Belief Items	.5777	58	

TABLE 2 POST-TEST KNOWLEDGE AND EXAM POINTS			
Overall Regression Equation $R^2 = .354$	df = 4, 123	F = 16.884	p < .001
Individual Items (in order of entry)	Beta	t	p <
Marketing's main focus is on the sale.	-.346	4.620	.001
The starting point for marketing is what the firm produces.	-.301	4.019	.001
Why people buy what they buy is difficult to understand.	.199	2.732	.008
Marketing's goal is to find that single strategy that serves the entire market.	-.193	2.494	.015

sis supports the notion that the knowledge items tap the same sort of understanding as the text and lecture-driven exams used in the course. The overall regression equation is significant, with over one-third of the variance in exam scores explained (in a least-squares sense) by the four questionnaire items that entered the equation. These items suggest that the primary determinants of overall exam grades for this section were a grasp of the marketing concept, the complex nature of consumer behavior, and the importance of market segmentation. Separate measurements revealed that if there was agreement with the statement "marketing's main focus is on the sale" or "the starting point for marketing is what the firm produces" or "marketing's goal is to find that single strategy that serves the entire market," total exam scores tended to decline. In contrast, as agreement increased with "why people buy what they buy is difficult to understand" exam scores were higher.

Knowledge

Learning outcomes from the principles courses were assessed by comparing the magnitude of the pre-post differences using repeated measures MANOVA, and repeated measures ANOVA once multivariate significance

was demonstrated. The first step was to examine differences across faculty, to see if pooling the data would be reasonable. The differences in pre-post scores shown in Table 3 indicate that there were no significant differences across faculty, so subsequent analyses are of pooled data.

Table 4 presents the pre-post changes in the knowledge items. Analysis revealed that the magnitude of the changes in a multivariate sense was statistically significant, as were most of the changes in the individual items. Three of the item shifts were not statistically significant, and they were "if my company is a large, successful firm, then stores will want to carry my brands," "if our product is just like everyone else's we have to cut price," and "the only need for marketing research is for new products." The issues concerning the directions of these shifts and their magnitudes will be discussed later.

Attitude

Table 5 presents the results of the attitudinal items. As was found with the knowledge items, there was multivariate significance, but only three of the fourteen items exhibited a statistically significant shift. Discussion of these shifts is a part of the next section of this article.

TABLE 3
MANOVA OF DIFFERENCES ACROSS FACULTY

Source	F-Ratio	df	P <
Knowledge Items	1.075	33, 204	.368
Attitude Items	1.317	42, 176	.114

TABLE 4
CHANGES IN KNOWLEDGE ITEMS

Source	F-Ratio	df	P <
Multivariate within subjects	17.69	11, 87	.001
Univariate			
Marketing's main focus is on the sale.	78.86	1, 97	.001
Marketing and advertising are the same thing.	68.79	1, 97	.001
A marketer's task is to create needs.	8.11	1, 97	.006
Advertising can make us buy things we don't need.	5.53	1, 97	.022
The starting point for marketing is what the firm produces.	30.64	1, 97	.001
If my company is a large, successful firm, then stores will want to carry my brands.	.12	1, 97	.732
If our product is just like everyone else's we have to cut price.	1.34	1, 97	.252
Marketing's goal is to find that single strategy that serves the entire market.	33.20	1, 97	.001
Marketing can save money by treating all consumers alike.	5.99	1, 97	.017
The only need for marketing research is for new products.	1.59	1, 97	.212
Why people buy what they buy is difficult to understand.	6.37	1, 97	.014

DISCUSSION

The results of this research may be sobering to any professor dedicated to creating learning in a classroom. Most marketing educators suspect that many students may initially misunderstand what marketing is about, but they bravely set out to stamp out ignorance and make the world a better place. At the end of the semester, they assume that an elemental level of understanding exists among students who have passed the principles course. Research suggests this may be a naïve assumption. While

there are no surprises in the pre-post responses, or in the direction of the pre-post shifts, the magnitude of both the shifts and the post-test means are very small. The professor's hard work seems to have little effect.

Figure 1 shows the means, pre and post, of each of the knowledge items, with the means values indicated at the ends of the bars. Of the eleven items, the small shift in the one labeled "the only need for marketing research is for new products" can probably be explained by a ceiling effect. Since the pre-course mean is less than two (1.96), there is very little room left for a shift in the desired

TABLE 5
CHANGES IN ATTITUDE ITEMS

Source	F-Ratio	df	P <
Multivariate within subjects	2.32	14, 82	.02
Univariate			
Marketing is very important to the global economy.	.590	1, 95	.445
Marketing employs people like me.	.984	1, 95	.325
Marketer is unnecessary.	1.477	1, 95	.228
Marketing is interesting.	.728	1, 95	.397
Marketing is sleazy.	2.902	1, 95	.093
Marketing is easy.	7.151	1, 95	.010
Marketing is less essential than it was 20 years ago.	1.932	1, 95	.169
Marketing is very abstract.	.007	1, 95	.936
Marketing is very important to service firms.	.037	1, 95	.848
Marketing is not at all important to non-profit organizations.	10.643	1, 95	.003
Marketing controls people's buying behavior.	8.576	1, 95	.005
Marketing is very important to the government.	2.934	1, 95	.126
Marketing jobs are scarce.	1.767	1, 95	.188
Marketing is very important to firms that make products.	.497	1, 95	.483

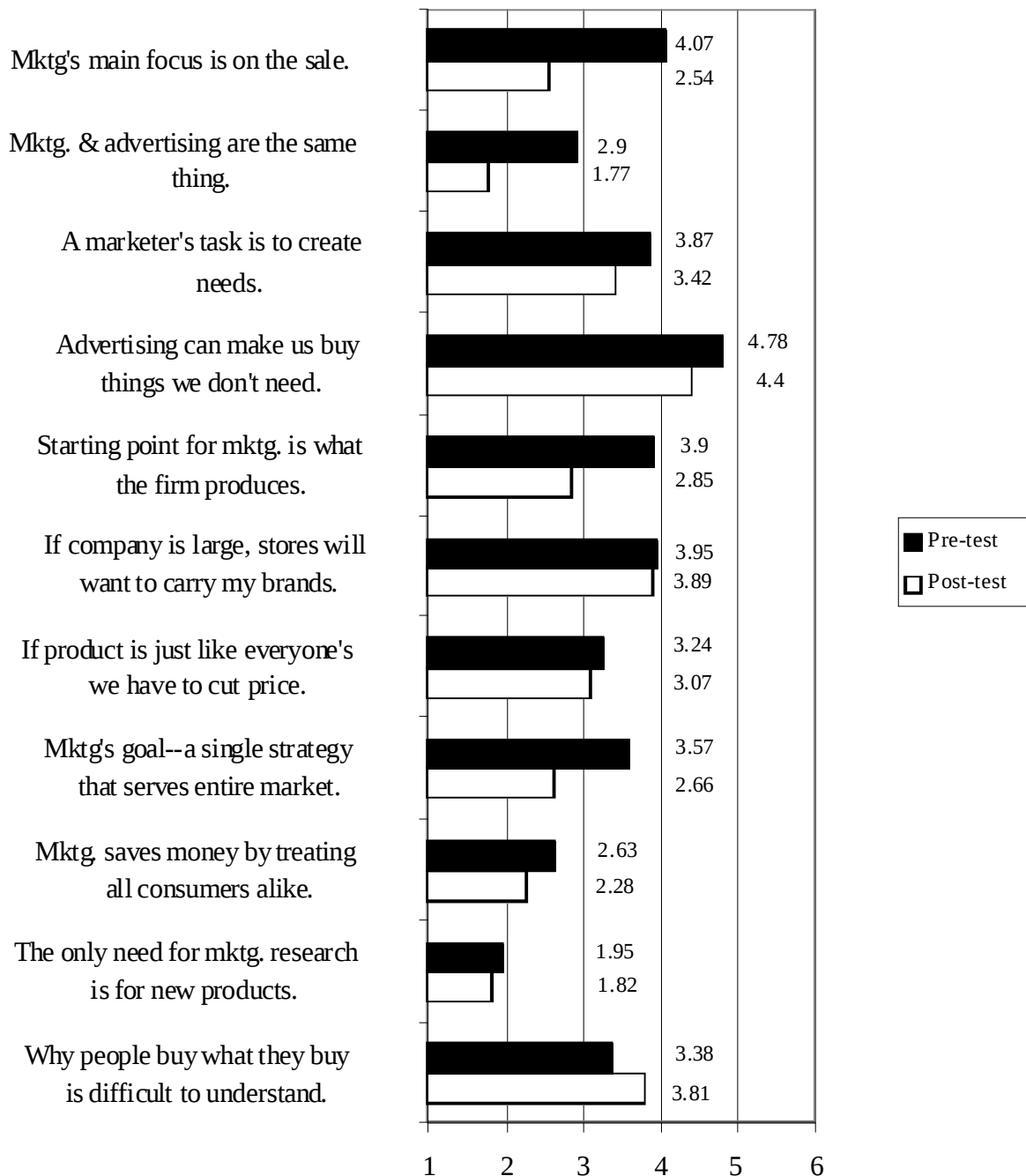
direction. Two other items, "if my company is a large, successful firm, then stores will want to carry my brands," and "if our product is just like everyone else's we have to cut price," have shifts in the desired direction, but of a very small magnitude (.25 and .28, respectively, on a six-point scale).

Table 6 provides further detail the pre-post shifts in learning, shows the percentages of students with shifts in the "desired" direction, those with shifts in the "undesired" direction, and those with no change pre to post. There are three items in this table of particular interest: "advertising can make us buy things we don't need," "if company is large, stores will want to carry my brands," and "if product is just like everyone's we have to cut price." The first of these, while intended to deal with an understanding of advertising, is likely to be driven by a students' attitudes toward advertising as all-powerful

force, and is little changed by arguments to the contrary made in class or textbooks. The second of these may be a bad question. The point of the question was to see if students understand that the producer is not in control of most channels, but there are so many different channel forms and exceptions to the power dynamic in channels that the question as framed may be ambiguous.

The response to the third question, "if product is just like everyone's we have to cut price," is likely to be a crushing disappointment to any dedicated marketing teacher. Agreement with that statement probably indicates that the proactive inhibition brought about by the students' lifelong exposure to slogans involving the "law of supply and demand" has utterly swamped the effects of the professor's hard work in the Principles of Marketing class. It also overwhelmed the students' own first-hand experiences as shoppers. Although it is unlikely that they

FIGURE 1
MARKETING KNOWLEDGE ITEMS
(6 = strongly agree, 1 = strongly disagree)



themselves routinely buy the lowest price item in a particular category, they apparently have no problem believing that everyone else does.

There are several explanations for the modest amount of learning these data reveals. It could be that weaknesses in the learning environment,² measurement problems, and/or factors outside the learning environment were

inhibiting learning. Definitively choosing among these possibilities requires broader use of the questionnaire in the Appendix, but some anecdotal evidence may be offered to support the contention that the basic problem is the baggage of proactive inhibition that students bring with them to the principles class.

Students enter the principles course with a set of

TABLE 6
PRE-POST CHANGE DIRECTION: KNOWLEDGE ITEMS

	Direction Expected	No Change	Opposite Direction
Mktg's main focus is on the sale.	71.6%	21.6%	6.9%
Mktg. & advertising are the same thing.	64.7%	29.4%	5.9%
A marketer's task is to create needs.	42.2%	31.4%	26.5%
Advertising can make us buy things we don't need.	38.6%	40.6%	20.8%
Starting point for mktg. is what the firm produces.	54.9%	25.5%	19.6%
If company is large, stores will want to carry my brands.	36.3%	25.5%	38.2%
If product is just like everyone's we have to cut price.	33.3%	39.2%	27.5%
Mktg's goal—a single strategy that serves entire market.	58.4%	25.7%	15.8%
Mktg. saves money by treating all consumers alike.	47.5%	35.6%	16.8%
The only need for mktg. research is for new products.	31.7%	49.5%	18.8%
Why people buy what they buy is difficult to understand.	45.1%	32.4%	22.5%
Means	47.7%	32.4%	19.9%

beliefs and attitudes concerning marketing and marketing practice (Ferrell and Gonzalez 2004). Professors may have an impact on these beliefs and attitudes, but it appears to be far less than any teacher would hope. During the process of instrument development, the authors became intrigued with certain consistent results: while knowledge shifts were typically in the direction expected, the magnitude in many areas seemed unreasonably small, given that the post-test was administered at the end of fourteen weeks of instruction. For example, the item “the starting point for marketing is what the firm produces,” has a post-test mean response of 2.85, indicating mild disagreement with the item. The response breakdown on this item shows a relatively “flat” symmetrical distribution. How did the notion of “product” as only one of the four elements of the marketing mix become lost on students?

At this point in the analysis of the study, the authors began to examine the level of learning at its most elemental. At the end of the course, what do students believe constitutes a definition of marketing? A few still equate it to advertising, many equate it to sales, and many do not see the product as part of the marketing mix. This is shown by concept maps as well as responses to an essay question such as “What is marketing?” and “How does marketing differ from sales?”

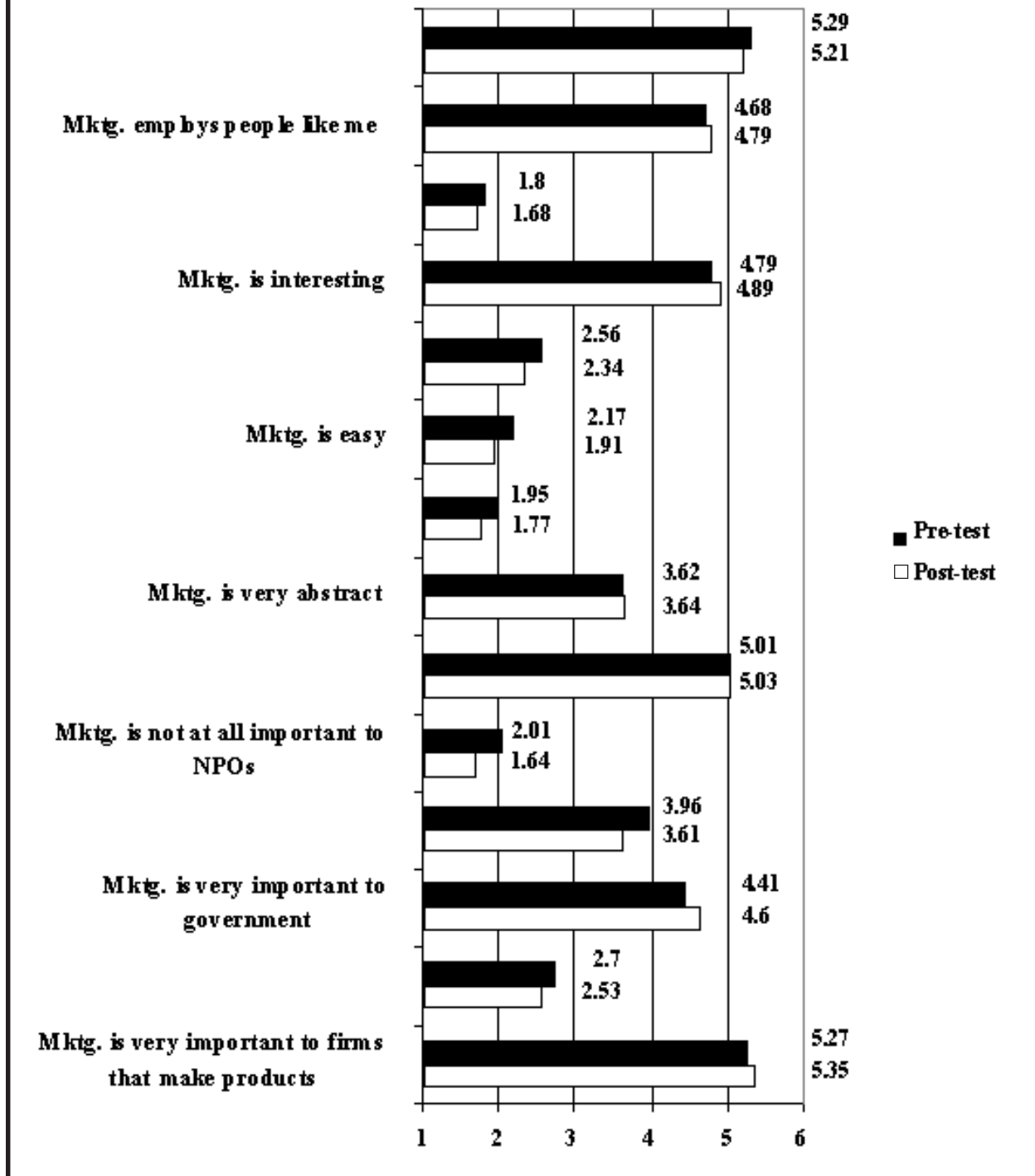
The authors have concluded that this disappointing result comes from the set of beliefs and attitudes that students have prior to taking the principles class. The term “marketing” is used casually in the everyday press and in other disciplines to mean a number of things, many of

which a marketer would see as a completely incorrect use of the term. The authors suggest that this set of prior beliefs and attitudes shape students’ responses to the classroom environment and to their reading of their texts. It is a dramatic case of proactive inhibition in action.

In Figure 2, the means of the beliefs and attitudes items are displayed with the values of means shown at the end of the bars. It is conceivable that there may be a ceiling effect at work, in that a number of the items are relatively close to the end of the scale and therefore have little room to move. If we examine the pattern of shifts across all the items, however, we see relatively little shift anywhere, including those items with means nearer the mid-point of the scale. The authors conclude that Figure 2 simply reveals the stability of students’ beliefs and attitudes. Three of the items in Figure 2 have pre-post shifts in what might appear to be the “wrong” direction, and those items are: “marketing is very important to the global economy,” “marketing is easy,” and “marketing is very abstract.” The first and third of these items have shifts that do not differ significantly from zero, and the authors suggest that the second item, “marketing is easy,” is likely to have been caused by students learning that there is more to the marketing discipline than they had thought.

Table 7 shows the percentages of students with attitude/belief shifts in the expected direction, those with shifts in the opposite direction, and those with no change pre to post. There are not many surprises here. Since the attitude and belief items tend to have means located more toward the poles than the knowledge items, we find higher percentages of students in the “no change” category,

FIGURE 2
MARKETING ATTITUDE ITEMS
 (6 = strongly agree, 1 = strongly disagree)



suggestive of a ceiling effect. An exception is the item “marketing controls people’s buying behavior.” There was room here for students to shift toward disagreeing with this statement, but almost sixty percent showed no shift or a shift toward agreement.

SUMMARY, CONCLUSIONS, AND LIMITATIONS

It may be that there are as many outcome objectives for a Principles of Marketing course as there are market-

TABLE 7
PRE-POST CHANGE DIRECTION: ATTITUDE AND BELIEF ITEMS

	Direction Expected	No Change	Opposite Direction
Mktg. is very important to the global economy.	19.8%	59.4%	20.8%
Mktg. employs people like me.	31.4%	50.0%	18.6%
Mktg. is unnecessary.	34.3%	51.0%	14.7%
Mktg. is interesting.	38.2%	44.1%	17.6%
Mktg. is sleazy.	30.7%	44.6%	24.8%
Mktg. is easy.	38.6%	46.5%	14.9%
Mktg. is less essential than it was 20 years ago.	37.6%	46.5%	15.8%
Mktg. is very abstract.	35.4%	33.3%	31.3%
Mktg. is very important to service firms.	27.5%	52.0%	20.6%
Mktg. is not at all important to NPOs.	39.2%	47.1%	13.7%
Mktg. controls people's buying behavior.	41.2%	37.3%	21.6%
Mktg. is very important to government.	35.6%	38.6%	25.7%
Mktg. jobs are scarce.	26.7%	54.5%	18.8%
Mktg. is very important to firms that make products.	23.5%	60.8%	15.7%
Means	32.8%	47.5%	19.6%

ing instructors. While it might be desirable to agree upon what constitutes a basic understanding of marketing principles, agreement is not likely to happen. Accordingly, the outcomes assessed in this project may not be seen as reflecting what is needed in every course at every school. For example, one of the Principles of Marketing course objectives for the department that was the impetus for this study was the "recruitment of marketing majors," which may not be a ubiquitous course objective. On the other hand, studies of the students' major selection process and ways to enhance students' perceptions of marketing during this process by marketers hints at such an objective (see for examples, Hugstad 1997; LaBarbera and Simonoff 1999; Pappu 2004; Camey and Williams 2004). Since attitudes and beliefs about a discipline is a main driver in choice of a major, the principles course provides a useful means to address these attitudes and beliefs and thereby influence the process.

The study of attitudes and beliefs that students bring with them to the principles course, however, is far more central to the pedagogical process than simple recruitment (for a succinct summary see Dailey and Kim (2001), and Ferrell and Gonzalez (2004)). If students end the course with essentially the same misperceptions about the nature of marketing that they began with, has any real learning taken place?

If misperceptions are what endure, there seem to be several important questions that must be asked, and answered.

1. Are we content with the fact that we measure things, without questioning the results or the meaning of the results? If so, then no further action is needed.
2. To what do we attribute the results of the study? Are results due primarily to (a) the measurement, (b) the learning environment, (c) the students, or (d) something else? The source of the results will determine the proper order in which to address the remaining important questions.
3. If the results seem to be due to a measurement issue, the authors invite any interested reader to either replicate this study, or conduct their own similar study with what they believe to be improved measures. Because we believe that lack of student learning is an important issue, we endorse with enthusiasm any additional work on this topic.
4. If the results seem to be due to the classroom learning environment, are we as instructors contributing to the problem? Do we use a great many advertising examples in our classes because they fit in with our multi-media approach to educa-

tion? If so, then we should not be surprised if students get the sense that marketing is indeed advertising.

5. If the results are due to the learning environment inside the university (but outside our classrooms), is this because marketing, is seen by our colleagues as synonymous with advertising, sales, and perhaps communication? Have we lost ground to logistics and management specialists who believe that marketing should only address advertising and sales? Worse yet, do our own marketing colleagues within the college believe that this is our proper realm?
6. If we believe that are we losing the battle to explain the proper role of marketing, and that change should occur, does the change need to happen within a specific program in marketing, or do we have a larger pan-discipline problem? If the latter, does there not need to be someone to step up on behalf of the discipline to champion a refocus on the proper role of marketing?
7. It is nearly impossible not to attribute the results in some measure to the students, because the knowledge they bring to class, whether accurate or not, is that with which instructors have to work. Unfortunately for real progress, attributing the difficulty primarily to students is too easy a solution because we will be tempted to blame others and then wash our hands of responsibility. The more that the authors study the issue, the more convinced they become that proactive inhibition is a reasonable explanation of the phenomenon of students' failure to learn.

Addressing the problem of proactive inhibition properly begins, as do all research initiatives, with an assessment of the situation. This paper reports only a humble beginning for such an effort, and further research will provide more insight. If proactive inhibition is confirmed as a reasonable explanation of failure to learn, however, then the reader would be owed some actions that could be taken to correct the situation. Two such actions come to mind. First, as Postman and Gray (1977) noted, old material does not necessarily become incorrect when new material is learned, and that by helping the student recall the old along with the new can help overcome the obstacle of proactive inhibition. A second remedy might involve the series of steps typically involved in error analysis: development of awareness of the incorrect (old) and correct (new) way, progressive discrimination of the old and new way, practice of the new way, and assessment of the result. Surely there are more remedies to be uncovered through further research.

One caution in dealing with proactive inhibition is that attempts to change student behavior almost always generate proactive inhibition within the practitioners. In other words, teachers, coaches, instructors, and other change agents can find it extremely difficult to change their own, established ways of teaching, coaching, or instructing. This leads to the paradoxical suggestion that the change agents themselves may need a change agent.

As a next step, it seems that the marketing discipline would benefit from an accepted and available pre-post test similar to the one reported here, across a large number of universities. The results would help inform the discussion of what seems to be the failure of students to learn basic Principles of Marketing in a classroom environment.

ENDNOTE

- ¹ Mary Joyce died on December 12, 2007 after battling cancer for several years. She was an amazing woman whose spirit continues to brighten the lives of everyone who knew her.

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APPENDIX

Principles of Marketing

Your name _____

This test will not be graded and will no have effect on your grade. We need to establish what students know in order to guide this course and future courses.

Section I. Place an X in the Box That Reflects Your Agreement Level.	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
Marketing's main focus is on the sale. (a) ³	1	2	3	4	5	6
Marketing and advertising are the same thing. (a)	1	2	3	4	5	6
A marketer's task is to create needs. (a)	1	2	3	4	5	6
Advertising can make us buy things we don't need. (f)	1	2	3	4	5	6

APPENDIX (CONTINUED)						
Section I. Place an X in the Box That Reflects Your Agreement Level.	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
The starting point for marketing is what the firm produces. (b)	1	2	3	4	5	6
If my company is a large, successful firm, then stores will want to carry my brands. (f)	1	2	3	4	5	6
If our product is just like everyone else's we have to cut price. (f)	1	2	3	4	5	6
Marketing's goal is to find that single strategy that serves the entire market. (e)	1	2	3	4	5	6
Marketing can save money by treating all consumers alike. (e)	1	2	3	4	5	6
The only need for marketing research is for new products. (d)	1	2	3	4	5	6
Why people buy what they buy is difficult to understand. (d)	1	2	3	4	5	6
Section II. Place an X in the Box That Reflects How You Feel.	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
Marketing is very important to the global economy. (l)	1	2	3	4	5	6
Marketing employs people like me. (g)	1	2	3	4	5	6
Marketing is unnecessary. (l)	1	2	3	4	5	6
Marketing is interesting. (j)	1	2	3	4	5	6
Marketing is sleazy. (i)	1	2	3	4	5	6
Marketing is easy. (j)	1	2	3	4	5	6
Marketing is less essential than it was 20 years ago. (l)	1	2	3	4	5	6
Marketing is very abstract. (i)	1	2	3	4	5	6
Marketing is very important to service firms. (c)	1	2	3	4	5	6
Marketing is not at all important to non-profit organizations. (c)	1	2	3	4	5	6

APPENDIX (CONTINUED)						
Section I. Place an X in the Box That Reflects Your Agreement Level.	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
Marketing controls people's buying behavior. (d)	1	2	3	4	5	6
Marketing is very important to the government. (c)	1	2	3	4	5	6
Marketing jobs are scarce. (g)	1	2	3	4	5	6
Marketing is very important to firms that make products. (c)	1	2	3	4	5	6
¹ It is vital that students know what marketing is, and just as important that they understand what it is not. The discipline continues to be plagued by the "marketing is selling," and "marketing is advertising," views. ² The learning environment includes the classroom, text, faculty preparation and presentation, etc.) ³ The parenthetical letters refer to the learning objectives listed in the section titled "A Study."						