

The Business of Academic Support

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Abstract

Academia has traditionally avoided adopting the fast-paced, profit-oriented operational style that accompanies corporate culture. However, a business model can be successfully adapted to the unique needs of an academic institution, discipline, faculty, and students through the selective adoption of business principles. A classic marketing mix theory was used with other basic marketing principles to promote an academic support area that struggled to convince students to voluntarily use their services. An adaptation of this model is presented along with the methodology that was used to develop it.

Science tutoring at our institution operated in two separate areas of our campus 15 years ago. One operation was at an "Academic Support Center," which was responsible for all tutoring at the university; it was located in the middle of the campus and reported to the administrative division. The other area was a grant-funded Anatomy and Physiology tutoring program, which was focused on serving minority-based constituents; it was located in a science laboratory and directed by a faculty member who reported to the academic division. Concerns relating to relatively low numbers of science students seeking support, relatively high failure rates of all students in science courses (grades D and below), and funding prompted an administrative decision to restructure academic support for the sciences. Structurally, we focused on the results of two reports: Richard Light's Harvard Assessment Reports (1990, 1992) that extensively discussed the benefits of Study Groups, and the recommendations of the American Society for the Advancement of Science (Matyas & Malcolm, 1991) that issued a call for more research in the use of study groups in science and mathematics. Once these study groups were established as our academic foundation, we focused our efforts on the more corporate-centered goal of convincing as many students as possible to

utilize our program — or increasing sales.

The methodology we chose to use for restructuring was based on a Marketing Mix model also known as the 4Ps: Product, Promotion, Place and Price (McCarthy, 1960). This model, which is used by businesses to influence demand and satisfy consumers, involves the methodical selection and control of numerous Marketing Mix variables. For example, "Promotion" decisions include the selection of advertising and sales strategies that will best appeal to the consumer. In academia, this might be flyers, manuals, brochures, displays, etc. The adaptation of these business principles to the unique needs of our institution resulted in the development of a highly successful science learning assistance center.

Academic Methodology based on the Marketing Process

Segmentation

Segmentation is the separation of customers into homogenous groups with similar needs. Once these groups are identified, the product mix can be adapted to meet their unique needs. Definition of segments can be based on age, sex, social class, lifestyle, motives, personality, etc. (Hisrich & Peters, 1991).

We initially segmented our groups demographically based on "The 1990 Science Report Card" issued by the National Center of Educational Statistics (Jones, L.R. Mullis-Ina, V. S., Raizen, S. A., Weiss, I.R., Weston, E.A, 1992) which states that minorities and females showed significant weakness in the sciences by grade 8 and the American Society for the Advancement of Science which indicated that "A coherent, coordinated, articulated structural approach to enabling students from under-represented groups to succeed in science, mathematics, and engineering programs has yet to be achieved by the (higher education) institutions" (Matyas & Malcolm, 1991, p.9). As we continued to closely work with students in science courses, however, it became apparent that freshmen, transfer students, students in high-risk courses, new science students, and possibly other populations were also high-risk groups, raising the possibility that by "targeting" special groups like women and minorities, we were alienating other "high-risk" segments. Accordingly, we also began to "target" segments based on psychological and product-related variables. In academic settings, examples of psychological variables include life style, motives, and personality. Part time versus full time, athlete versus scholarship, and dorm versus commuter students have different needs and can be motivated differently. Similarly, student motives can range from the abstract (companionship, understanding) to the more concrete (grades). Product-related benefits may include brand loyalty, end-use (book, test), and motives (homework assignments, exam preparation). As a result of our ability to identify these unique needs, we were able to design a product mix that appealed to specialized segments and still propagate an open learning community which was inviting to all students studying a science. The strategy of using academic assistance due to the objectives and content of the course rather than because of students' deficiencies was also noted by Keimig (as cited by Martin & Arendale, 1992) and was similar to Martin and Arendale's (1990, 1992, 1994) Supplemental

Instruction (SI) program in that the focus of our Study Groups was learning rather than remediation. "SI does not identify high-risk students, but rather identifies high-risk classes. SI thus avoids the remedial stigma often attached to traditional academic assistance programs" (Martin & Arendale, 1992, p. 3).

Product

In our original academic support center, tutoring was our primary product. In contrast, using the marketing model, market segmentation provided us with information that we used to develop a mix of products and services (product mix) capable of meeting student academic needs and resulting in academic success.

We had no supply budget the first few years for the academic materials we needed for our students, but we did have strong faculty support. Once they realized we were attempting to supplement their efforts, they donated all material resources and continue to contribute to the present day. Books, tests, models, multimedia equipment, and study guides were contributed on an ongoing basis for their students' use. The use of media in instruction to achieve different learning outcomes or educational goals has been discussed extensively (Gagne, 1987; Gagne & Medsker, 1995; Gagne, Wager, Golas, & Keller, 2004; Reiser & Gagne, 1983). From a marketing standpoint, supplying our students with products that satisfied their academic needs resulted in market penetration as demonstrated by increased student contact.

The advent of technology presented us with an additional opportunity to expand our product mix in the form of software and multimedia assistance for the science projects of both students and faculty. This merging of tutoring and computer assistance was also seen at DeVry where Eichler indicated that students "loved" computer-assisted instruction if it was backed up with tutor interaction and help (Casazza & Silverman, 1996). Faculty were included in software and hardware purchasing. As a result, these software programs contained content germane to our courses; professors sent their students to access the programs, and students were provided with alternative methods of learning. Assisting faculty in their efforts to use technology for their research and classroom activities also had pleasant ramifications in that faculty presence at an academic center could be compared to the use of celebrities in commercial advertising, or "celebrity testimonials." These academic role models, essentially, were non-verbally communicating to students an image of the Center as the "educational workplace" of serious professionals.

Along with this product mix, we focused on other variables involved in product decisions such as branding, versatility, quality, reliability, features, and service. As an example, service in the form of convenience was provided to the science segment through the program's structure: hours of operation, duration of each tutoring session, and staffing were established based on students' science lecture and laboratory schedules, enabling students to conveniently schedule their tutoring sessions along with their classes.

The design of our Study Group Procedure is a demonstration of how a combination of service, versatility, and reliability can produce planned results. Groups were formed on a first-come, first-served basis with the understanding that students would lose their group if they missed one

session. This potential loss of a preferential time slot provided the incentive for students to use the Study Group during low, as well as high, periods of demand, more fully utilizing our tutors and ensuring more consistent student attendance. As an additional motivation for students to commit to a Study Group, they were promised that they would be guaranteed service and no waiting lines throughout the semester in exchange for their continual participation in the Group. All groups were posted by course and teacher as well as time to provide students with the flexibility to participate in multiple groups. The end result was our ability to convince students to maintain consistent contact with our Center throughout the semester, rather than sporadically before assessments or as a result of poor grades.

Branding.

Branding is the process of attaching a symbol or name to a product that generates an image that will be associated with the product, service, and/or company. It helps the consumer to identify the product or service. It can also assist a manufacturer or service to plan a marketing mix through the development of attributes that will differentiate the brand to the segmented group in a meaningful and compelling manner.

Ideally, the brand name will become a center of the promotion and advertising strategy and, if associated with a quality product, will facilitate the adoption of new ideas spun off from this brand. The name can inspire acceptance, preference, and/or loyalty among consumers and facilitate the adoption of alternate products or services. The name should fit the product and convey an image that consumers will identify with the product (Hisrich & Peters, 1991). The brand name "Academic Support" was not adopted since these words could portray a remedial stigma. The actual name adopted for our program was created by a faculty member and used for the meaning these words implied: "Science" accurately identified the community we served. "Enrichment" was our purpose. "Center" was what we intended our location to become to the science community. The name was simple and conveyed an image we could use in our market strategy. It was eventually abbreviated to SEC suggesting forethought in using a name with a suitable acronym. These easy to remember, brief letters were used as part of our logo, website address, and university publications. Our logo enhanced our identity to students signifying stability and professionalism at the same time that it provided memorability and visibility.

Place.

Place decisions are concerned with getting the product to the target customers and include decisions relating to locations, logistics, dealers, distributors, sales forces, and distribution (Hisrich & Peters, 1991). Under the former system, we were located in a space mid-campus central to our student body. Unfortunately, our science students were reluctant to travel across campus for science assistance. When given the choice of location for the re-structured program, we used the marketing principles of filling the needs of your target segment and chose to relocate to the science building. Since there was no space for us, our group chose to share space

with laboratory classes our first year, necessitating our migration from laboratory to laboratory in synchrony with the laboratories' schedules. Growing numbers and laboratory security issues resulted in our relocation to a more stable base of operation by the second year. Subsequently, still increasing numbers prompted our university to offer us a large space in a more remote location. Remembering the three principles of real estate, "location, location, location," we chose, instead, to remain in a small storage room with big windows in proximity to faculty, students, and classroom activity. As a result, it was very convenient for faculty to visit their students, answer questions, and/or show their students that they recognized they were making an effort to do well by using the Center. Although this space was too small to accommodate all of our groups, it served as a home base where group leaders met with their Study Groups before bringing them to surrounding empty rooms to work. Ultimately, our program's design and its usage of space was more important than size in helping us to reach the goals (student attendance and retention) that were necessary to earn more space. As our student base and effectiveness was established, our administration continued to allocate more space for our program; as a result, administration has approved architectural plans to significantly increase our size in the science building renovation project. The placement of support services in geographic contiguity to academic departments was also noted as being important by Supplemental Instruction developers at the University of Missouri, Kansas City (Martin & Arendale, 1992) and Loyola University (Casazza and Silverman, 1996).

Virtual Distribution.

In an effort to expand the student base we were reaching through physical space, we established additional channels of distribution through the Internet. Online tutoring was established as a means of providing more convenient tutoring and additional quality resources at no cost to several new segments, including working students, distance education students, the handicapped, and caregivers. To accommodate students who did not have the time to invest in an online tutoring session but had questions, asynchronous tutoring was also created through the use of a message board. Online resources to support these options were supplied with an online virtual academic resource site named the Virtual Science Enrichment Center (VSEC). It was decided to use a "family or blanket" branding strategy in the creation of the VSEC's name because consumer adoption of a new product is generally facilitated by using the same or a similar name as the parent product.

Distributors.

Using the marketing model, it was recognized that our distributors, sales force, and tutors were in actuality the same. Tutors had the first and longest contact with our "consumers" (students) and, therefore, were crucial in the program's ability both to retain our current "clientele" and to attract new students. Since they were also the intermediaries between faculty and students, it was equally important that they demonstrate the competence and expertise that would earn them the acceptance of both entities.

Consequently, tutor recruitment was based on those criteria most likely to satisfy both factions: academic excellence, familiarity with our courses, personality, communication skills, and the ability to lead. Faculty were asked to collaborate with the Center on an ongoing basis by “hand-picking” potential students that fit these criteria and, as a result, they were more comfortable referring their students to these tutors. Analogously, students were more willing to go to a tutor who was familiar with their professor(s) and their courses’ needs.

Promotion.

Traditionally, our campus support programs had been promoted through flyers and email announcements as well as appeals to faculty to refer students. However, we saw the need for more active and aggressive promotional methods. Promotion decisions in marketing are related to how a business educates and communicates with its target segments. It includes advertising, demonstrations, coupons, samples, publicity, and other sales aids (Hisrich & Peters, 1991). A good promotional campaign can strongly influence sales and should not be underestimated. As noted by Shenson (1990),

Available means, objectives, the market segment, the distribution network and customer needs are important considerations during the promotion of a product [B]illions of dollars are expended annually in both open-to-the-public (open enrollment) seminars and workshops (p.1).

Where our program was in its “growth cycle” influenced our promotion decisions. In the initial stages of product development or when exposing freshmen to support services, it was necessary to educate the population on what the product was and how it would satisfy their needs. Personal selling, samples, coupons, and demonstrations are generally most effective during this “introduction” stage. As the program entered the “growth” stage, benefits were stressed, and our image further developed to facilitate student acceptance of new products and expansion of our program to new market segments/students. Continual awareness of environmental conditions was fundamental to these promotion efforts. Specifically, student receptivity to our efforts and our selection of promotional tools was dependent on the student’s perspective (course and professor), seasonality (fall, spring, or summer semester), and market conditions (timing within the semester’s learning cycle). For example, printed materials were hand delivered at the beginning of the semester to generate publicity; exam reviews were offered before exams when students were most receptive to studying; flyer content was periodically changed throughout the semester based on student needs; online tutoring was more popular toward the middle of the semester as student desperation increased and on-site tutoring slots diminished; and coupons were more popular when students’ exam grades did not meet their expectations.

Coupons.

Historically, one of the most frustrating challenges we experienced in academic support was convincing students to seek our academic assistance

before they were in academic jeopardy. Using marketing, we found a solution to this dilemma through the initiation of a coupon program. The coupon model has proven itself to be an effective marketing tool which generated "...a \$96 billion business in the United States with a distribution of nearly 300 billion coupons in 1993" (Spethmann, 1994). It is also known for developing a clientele as noted by Fortin (2000): "Traditionally, coupons have been used...to attract new users into a product category" (p. 517).

We created a modified coupon program in our attempt to replicate this industry model. In this program, students received a coupon point in exchange for each Study Group session they attended. If the coupon was validated by our support center's administrators, professors participating in the program would accept these coupon points in exchange for credit. The value of this credit varied based on the policy of the professor. "Program adoption" began slowly since only professors who were "early adopters" initially experimented with the program. However, as more professors began to experiment with the concept, it was soon apparent through study group membership and coupon issuance that students were seeking academic assistance earlier in the semester, reducing their chance of encountering academic jeopardy on their first exam. Students liked receiving immediate gratification in the form of a coupon as a reward for their efforts. Professors liked the program because they established the value and terms of their students' coupons, security was stringent, and their students were taking a more proactive approach to learning.

Samples.

"Samples" provide prospective buyers with the opportunity to learn about a concept that interests them and the presenter with the opportunity to persuade potential consumers to buy the product. In our marketing oriented academic environment, it was recognized that workshops, seminars and exam reviews were actually providing a "sample" of our product to our students. New workshops were constantly developed based on faculty and student input in order to provide students with skills that could help them succeed in their courses. Although we knew that we were limited in our ability to significantly increase the grades of a student in academic jeopardy through only exam reviews, we encouraged them to participate knowing that participation in our groups increased the chance that student would utilize our services in the future.

Indoor signs.

Although our Center was in close proximity to our students, the onus of "getting them in the door" still remained. Traditionally, we had always posted informational flyers throughout the high traffic areas of our building to announce our services and events. Using a marketing-centered methodology, however, we made these flyers attention-grabbing and posted them at eye level. As Levinson (1998) noted,

Worded and designed successfully, indoor signs capitalize on the momentum generated by your other means of marketing Indoor signs . . . generate impulse reactions exactly where they ought to - at the place of purchase, where about 76% of purchase decisions are made according

to a 1996 study (p. 59).

In addition, a bulletin board and a white board were situated in visible locations outside the Center. Restaurant-style, the white board was used for the purpose of informing students of our daily events, "specials of the day." The bulletin board's content interspersed our program's schedules, information, and events with scholarship opportunities, job positions, and other information likely to attract our students' attention.

Personal Selling.

In sales, one of the most successful techniques in establishing a productive relationship between a salesperson and a prospective consumer is personal contact. Despite the somewhat chaotic atmosphere of the beginning of the semester in academia, the coordinator or tutors personally made the extra effort to visit high-risk classrooms to provide students with program information verbally and in the form of brochures, a form of "direct mail."

Entertainment provided during a Study Group session was another form of personal selling which was as effective in educating and capturing the attention of students as it is in marketing. The benefits, strategies, and research of incorporating entertainment media in student learning has been discussed by Forney and Cawthon (2004) and McKinney (1988). Our most popular tutors kept their groups fun and entertaining while students learned, justifying the "opportunity cost" of spending time participating in a Study Group.

Web Marketing Tools.

As technology evolved, its usefulness to us as a marketing tool became limitless, providing us with a method of reaching more students with limited funds. As noted by Levinson (1998), "Technology now gives small-business owners a blatantly unfair advantage. It allows them to produce first-rate marketing materials that used to require big budgets but now require only a big imagination" (p. 2). Our Center's attempt with virtual marketing was the SEC WebPages site, which was created to inform and motivate students to become involved in our program. Subsequently, we also used this program as a virtual door through which students were directed to our other virtual sites, which included the Virtual Science Enrichment Center (VSEC) and SEC Blackboard™. Growth of our virtual site usage was exponential. As evidence of the potential of these sites, online hits increased 1,831% by the end of the third year, and 3,633% the fourth year. At the end of the sixth year, there were 306,831 hits and 63,521 visitors to our virtual sites.

Word of Mouth.

Good marketing may help convince a consumer or student to use a product initially, but the long term value of customer referral is invaluable. As Levinson and Godin (1994) note,

Word of mouth advertising is the ultimate result of years of careful planning, media spending, and quality service. . . . In order to generate a referral or a testimonial from a loyal customer, you've got to take the time to set the stage. You can do a hundred little things that make your business attractive to a customer. . . (p. 352).

Our unwavering responsiveness and effectiveness ultimately helped us to develop an image and brand name that established acceptance, preference, and/or loyalty by our professors and students. As we soon discovered, this effort paid dividends in terms of the contacts that resulted from student and faculty referral.

Price

Price decisions in marketing basically involve setting a price that serves the customer well and maximizes profits to the company. Unless a Center is subsidized by a grant, learning support is a hidden cost to the institution that will ultimately affect tuition. Since this connection is indirect, students are not aware of tutoring cost. Even administrators may not realize the true cost of tutoring programs. A learning center has the ability to help the academic institution control this cost for itself and its students through efficient resource management. A relatively low cost in the initial stages of a project can be critical in facilitating its continuance. Our understanding of that marketing concept was essential to our ability to continue development of our new Center. Consequently, analysis and feedback was frequent and ongoing to facilitate strategic fine tuning of the program early in the product's life cycle and to update the administration concerning their investment.

Our initial program costs were kept low by faculty donations and by using a part-time staff of students and one professional. Costs were further reduced by the "economies of scale" that resulted from the use of Study Groups, which gave us the ability to help more students with less manpower and fewer resources, versus one-on-one tutoring. As a side benefit, Study Groups enabled us to prevent the long waiting times and short sessions students had to endure in the former system, which was walk-in based, and reduced the number of repetitions a tutor needed to repeat an explanation. Through efficient scheduling, we were able to accommodate over 11,000 students with 23 tutors at a cost that ranged from approximately \$4.00 to \$6.00 per contact.

Since compensation for our tutors was modest, particularly in the early stages of the program, creative financing was implemented. That is, a "modified commission" structure was established in which the pay rate and hours provided to tutors was directly related to their ability to attract and keep students in their Study Groups. Additionally, non-monetary incentives were generously provided to tutors in the form of portfolio development, mentorship, letters of recommendation, and networking to help them develop personally and professionally.

Assessment

Hisrich and Peters (1991) aptly describe the importance of assessment in the development stages of a product or program:

For new products in the critical introduction state, performance should be monitored in short intervals (monthly or quarterly). As the product moves on to another stage of the life cycle, performance standards should change. If the new product is not meeting its standards, the problems must be diagnosed so that the necessary modifications can be made at an early point in the life cycle (p. 453).

In order to monitor our activities and determine whether we were meeting our goals and objectives, assessment of our learning center was accomplished using a marketing model. This control process includes the identification of which marketing variables to measure, establishment of performance standards, comparison of actual results against planned results, modification of the program based on results, and revision of performance standards as appropriate (Hisrich & Peters, 1991). Some well-known important variables that we monitor at our academic center include student involvement (sales), effectiveness (profit), and cost (expenses). This kind of valuable information can be produced with relatively minimal effort as long as a carefully planned database is maintained.

Contacts were a relatively easy parameter to measure and were used in a multitude of ways, including the success of new programs. For example, after we initiated our on-site resource program, student contacts increased by 58%. An additional 6% increase in contacts was demonstrated a year later with the expansion of our on-site multimedia center, and a 49% increase has been seen since the start of the coupon program. In total, we were able to show that on-site contacts increased by 569% since the start of the Science Enrichment Center. Contacts were also used in conjunction with other variables to calculate approximate cost per student contact hour (cost/unit), which was a descriptive as well as quantitative method of measuring the relative cost of our program. When correlated with more detailed information, such as segment, time, service, etc., contacts were further used to obtain information that could help us more accurately project staff needs and obtain student cycle information that could be used to help us make future marketing decisions.

Program Effectiveness

Program effectiveness can be difficult to measure in a learning center and may require ingenuity. In academic support, there is always the possibility that students in study groups perform better academically because they are a more motivated cohort. Alternatively, there is the possibility that the high numbers of desperate low academic achievers who join a Study Group at the last moment to avoid failure reduces the positive effect in performance demonstrated by successful Study Group participants. During the first two years of operation when our student numbers were more manageable, we eliminated these variables by comparing the grades of all tutored students before and after joining a Study Group. We found that students who attended a Study Group five or more times prior to an examination increased their

score by an average of 12 points on the next exam. As our student numbers grew in subsequent years, we only compared exam grades of students in selected high-risk courses before and after our program's intervention. In Spring, 2007, we found that in one high-risk course, the incidence of "D" and "F" grades decreased 53% when the percentage of students joining a SEC Study Group five or more times increased from 8% to 70%.

Discussion

When developing a marketing plan, it is important to remember that the external and internal environment must be used as the framework for decision making. The economy, culture, technology, demand, and politics are external factors that will affect the internal environment of the academic institution which includes financial, capital, and intellectual resources, as well as the institution's mission, goals, and objects (Hisrich & Peters, 1991). As this environment changes, the learning center must be willing to adapt and evolve with these changing needs.

Further Study

Technology is an example of one area that continues to grow at tremendous rates and has the capacity to continually impact learning centers. Some of our previous technological adaptations are discussed in this paper. Data management systems is an area with great potential to help learning centers create effective reports. Last year, after our institution changed to a more user-friendly computer interface, we worked with our technology experts to modify an existing data system to retrieve more detailed information. We also developed a tutoring attendance reporting system for our professors that can be accessed at their convenience throughout the semester.

As our world becomes more global, there is also the need for more virtual resources, such as virtual tutorials. Although many programs are on the market and freely available on the Internet, our center has teamed with our faculty to develop tutorials specific to our curriculum and students. In addition, we are presently in the process of adding audiovisual capacity to our on-line tutoring.

Conclusion

The challenge to the success of an academic support program is encouraging student adoption and establishing institutional support. This paper demonstrated how the classic Marketing Mix (4Ps) theory developed by Jerome McCarthy in 1960 was used in conjunction with other basic marketing principles to accomplish these objectives at minimal cost. This theory has been modified by many businesses based on their needs and can also be modified by support centers. The marketing applications that were successful in our center may be helpful to other learning center administrators. These principles can be used to develop program(s) or to maximize the efficacy of their current techniques. The theory behind this methodology can be used ad infinitum in a multitude of areas in varying degrees. All that is required is the willingness to constantly adapt to changing student and environmental needs and an investment of time, energy, and creativity.

References

- Casazza, M. E., & Silverman, S. L. (1996). *Learning assistance and developmental education*. San Francisco: Jossey-Bass.
- Forney, D. S., & Cawthon, T. W. (Eds.). (2004). *Using entertainment media in student affairs teaching and practice*. San Francisco: Jossey-Bass.
- Fortin, D. R. (2000). Clipping coupons in cyberspace: A proposed model of behavior for deal-prone consumers. *Psychology & Marketing*, 17(6), 515-534.
- Gagne, R. M. (Ed.). (1987). *Instructional technology: Foundations*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gagne, R. M., & Medsker, K. L. (1995). *The conditions of learning: Training applications*. Belmont, CA: Thomson Wadsworth.
- Gagne, R. M., Wager, W. W., Golas, K., & Keller, J. M. (2004). *Principles of instructional design* (5th ed.). Belmont, CA: Wadsworth.
- Hirich, R. D., & Peters, M. P. (1991). *Marketing decisions for new and mature products* (2nd ed.). Upper Saddle River, New Jersey: Prentice-Hall.
- Jones, L.R., Mullis-Ina, V. S., Raizen, S.A., Weiss, I.R., Weston, E.A. (1992). *The 1990 science report card: NAEP's assessment of fourth, eighth, and twelfth graders* (NCES No.92-064). Washington, D.C.: National Center for Education Statistics. (ERIC Document Service No. ED342683)
- Levinson, J. C. (1998). *Guerrilla marketing: Secrets for making big profits from your small business* (3rd ed.). Boston: Houghton Mifflin.
- Levinson, J. C., & Godin, S. (1994). *The guerrilla marketing handbook*. New York: Houghton Mifflin.
- Light, R. J. (1992). *The Harvard assessment seminars: Explorations with students and faculty about teaching, learning, and student life*. (Report No. 2). Cambridge, Massachusetts: Harvard University, Graduate School of Education and Kennedy School of Government.
- Light, R. J. (1990). *The Harvard assessment seminars: Explorations with students and faculty about teaching, learning, and student life*. (Report No. 1). Cambridge, Massachusetts: Harvard University, Graduate School of Education and Kennedy School of Government.
- Martin, D. C., & Arendale, D. R. (1992). *Supplemental instruction: Improving first-year student success in high-risk courses* (The Freshman Year Experience: Monograph Series No. 7). Columbia, South Carolina: Center for the Freshman Year Experience, University of South Carolina. (ERIC Document Service No. ED354839)
- Martin, D. C., & Arendale, D. (1994). *Review of research concerning the effectiveness of SI from the University of Missouri-Kansas City and*

other institutions from across the United States. Kansas City, Missouri: National Center for Supplemental Instruction, University of Missouri-Kansas City. (ERIC Document Service No. ED370502)

Martin, D. C., & Arendale, D. R. (1990). *Supplemental instruction: Improving student performance, increasing student persistence.* Kansas City, Missouri: Center for Academic Development, University of Missouri-Kansas City. (ERIC Document Service No. ED327103)

Matyas, M. L., & Malcom, S. M. (Eds.). (1991). *Investing in human potential: Science and engineering at the crossroads.* Washington, D.C.: American Association for the Advancement of Science.

McCarthy, E.J. (1960). *Basic marketing: A managerial approach.* Homewood, IL: Richard D. Irwin, Inc

McKinney, K. (1988). *FACES: Five components of quality teaching. Teaching Sociology, 16(3), 298-301.*

Reiser, R. A., & Gagne, R. M. (1983). *Selecting media for instruction.* Englewood Cliffs, NJ: Educational Technology Publications.

Shenson, H. L. (1990). *How to develop and promote successful seminars and workshops: The definitive guide to creating and marketing seminars, workshops, classes, and conferences.* New York: John Wiley & Sons.

Spethmann, B. (1994). *Coupons shed low-tech image: Sophisticated tracking yields valuable consumer profile. Brandweek, 35(41), 30.*