PROJECT MATRIX

Fitness Educators and Fitness Equipment Manufacturers Working Together Innovatively

by Carol Kennedy-Armbruster, Ph.D., ACSM HFS; Doug Marquette, B.S.; and Antonio Williams, M.S., NASM CPT

LEARNING OBJECTIVES

- To inform health and fitness professionals and educators about the importance of working with fitness equipment manufacturers to benefit colleges, universities, and business practices.
- To introduce a model of how to foster a working relationship between a for-profit corporation and an institution of higher education for an educational experience for both entities.

Key words:
Interactive Learning Model, Fitness Educators Collaborating with Equipment Manufacturers, Teaching Business Practices to Fitness Professionals, Integrating Students in Higher Education and a For-profit Corporation in a Marketing Experience, Developing Presentation and Team Building Skills in College Students

INTRODUCTION: PROJECT MATRIX

Traditional education methods often focus on basic knowledge and the application of skills. Basic knowledge can take time for application strategies to be developed into a practical context. Application of skills, on the other hand, is characterized as being capable of having an impact in practice within a relatively short time frame. Colleges and universities generally strive to find a balance between basic knowledge and the application of skills. The purpose of Project Matrix was to combine basic knowledge and skill acquisition into one learning experience. In the past decade, many educational institutions have created translational research and education centers. For example, Spectrum (9), the Stanford Center for Clinical and Translational Education and Research, uses the interdisciplinary resources of the university to streamline, accelerate, and promote the translation of basic discoveries into practical solutions that improve human health in the community. According to Ferring (3), translational education is integrating research and practice to provide a better educational experience. Translational education combines education and practice or, in the case of this article, involves an educational entity working with a business entity to provide information to the equipment manufacturer and generate a positive learning experience for the college students. It is important for the students and corporation to work together to make the fitness experience safe, effective, and beneficial to those who use the equipment. This article presents a nontraditional approach to educating future fitness professionals about the advantages of working with other disciplines to form creative and innovative solutions that integrate business and practice.

FITNESS EDUCATORS AND MANUFACTURERS MEET

Several years ago, one of the article's authors, Carol Kennedy-Armbruster, Ph.D., a senior lecturer at Indiana University (IU), took members of her academic fitness management class to the International Health and Racquet Sports Association Club Industry tradeshow in Chicago for a

Photo courtesy of Indiana University.

practical learning experience. While on the exhibit hall floor, the education director (Doug Marquette, one of the authors) for the fitness manufacturing company Matrix met with them. Carol interpreted the title of the Matrix education director as having a common bond with education. Little did she know that this title described what market the Matrix education director was responsible for, not that he was involved in education within his company. Both Carol and Doug discussed the possibility of working together on a project to bridge the gap between education and fitness equipment manufacturing. For Matrix, it is always a challenge to bring a product into the market. In most cases, it takes years of research, beta testing, and engineering. The success of the product often is based on consumer feedback, competitors' product analysis, and what works best from a design perspective of hardware and software. This approach is intended to reduce development risks, costs, and time to market but often does not take into account fitness trends, research, and/or potential customer feedback. This can be costly for the company because the features and functions included in the design platform determine the long-term success or failure of equipment produced in the product line. With so much riding on the end product, reliable information sources are critical to providing information that will be useable for the fitness equipment manufacturer. In the case of colleges and universities, educators constantly are seeking applied learning experiences that combine the application of knowledge and basic skills learned in class. Business entities often perceive educators as focusing on teaching "the facts," whereas the business entity seeks a fitness professional who knows the business and can apply this knowledge to a business setting. It was determined by the authors that a win-win situation existed for both entities to work together to enable one another to provide better services to their constituents.

WIN-WIN SITUATION FOR BOTH ENTITIES

Understanding the wants and needs of the core fitness consumer is a mutual task shared by fitness manufacturers and fitness educators. Through collaboration with a university (IU), Matrix gained an understanding of the wants and needs of the future fitness professional. The students participating in this collaboration are the future trainers, general managers, buyers, and educators in the fitness industry and, consequently, an important consumer group for the equipment manufacturer. Such collaboration also may help equipment manufacturing companies achieve brand recognition

Photo courtesy of Indiana University.

with future fitness professionals. Positioning its products into the minds of potential buyers and users was important for Matrix.

Matrix's objective is to provide the fitness professional with quality equipment that meets the needs of their constituent. Lagrosen and Lagrosen (5) suggest that quality and access to equipment enhance the experience for the consumer of fitness products. Marketing managers, product managers, and design engineers gather information from many sources to determine what features and functions will make it to final production. Focus groups, study groups, competitors, sales people, and trends are used to obtain user information. This project provided a vehicle for the company's product managers to gather information about what equipment the end user wanted. According to Doug, current fitness research rarely makes its way to the product managers because they believe that academia has little to contribute to the product development process.

Ultimately for Matrix, the benefits derived from collaboration with IU were the creation of strategic brand placement by building brand awareness, brand loyalty, brand equity, and brand association for future fitness professionals. It is critical to understand that the fitness brand is not only the product but also the knowledge that the product has been well researched and is the best option for the consumer of fitness products. An assignment like Project Matrix gives the equipment vendor input and insights on the competition from a consumer's perspective. The fitness brand is independent of the actual product and is unique to the company to which a potential buyer maintains loyalty (8). See Table 1 for a summary of Industry Brand Benefits.

TABLE 1: **Industry Brand Benefits**

- **Increased brand awareness is the ability for the consumer to recall the brand when its product category is mentioned (1).**
- **Positive brand image is the impact all the brand's associations have on the consumer. The project allows students to develop their perceptions of the brand (6).**
- **Creation of brand associations. A major benefit of university collaborations is to develop or strengthen brand associations. Marketing research suggests that attributes of entities may be transferred because of partnering efforts (4).**
- **Gaining brand equity is a set of assets and liabilities linked to a brand, its name, and symbol that either adds to or subtracts from the value provided by a product or service to a firm and/or that firm's customers. It enables the brand to achieve top-of-the-mind awareness among its end users.**

Photo courtesy of Indiana University.

It also is important for manufacturers to acquire ideas from college students who are a subset of the Millennial (born between 1982 and 2000) consumer group. According to Asac (2), this group rivals the current majority fitness consumer group (Baby Boomers) in size and buying power, and they are goal oriented and optimistic about achieving professional success. In addition, college students like learning in a relaxed, fun atmosphere. Tharrett and Peterson (10) identify the typical American fitness health club consumer as college educated. Likewise, the students participating in this project enjoyed learning through practical application while using creativity and a process-based framework to solve problems. Additionally, Asac (2) suggests that Millennials need to develop more critical thinking skills in their education. The authors, working together, provided college students an interactive learning experience while giving Matrix the opportunity for more brand awareness. This was a win-win situation for both IU and Matrix.

The ''Project Matrix'' Assignment is created

Each semester students were asked to help Matrix solve equipment manufacturing design questions as a part of the requirements for a fitness management academic class. The assignment included deadlines for various parts of the project. For example, 10 points were allotted for quality of research, 10 points for focus group summaries, and 30 points for teamwork. A list of ideas on how to perform research on product development was given to the students by Matrix staff. These ideas are listed in Table 2. A mock presentation was performed before the actual presentation and was graded by the faculty instructor. Overall, the Matrix Project accounted for approximately one quarter of the course grade. Matrix agreed to put forward a monetary award of $500 for the solution that Doug agreed was the best. The Matrix assignment has been a part of the curriculum within the fitness management class for four semesters with a different design topic to solve each semester. Students are placed in teams of four to five per group to solve the challenges raised by Matrix. Outlined below are the four challenge topics that were created by Matrix for the students to solve:

Photo courtesy of Indiana University.

1. The Dated Equipment Challenge:

   Students were asked to work on a specific piece of ''dated'' fitness equipment that seemed to be declining in use and therefore sales. The student's charge was to create a new way to bring this equipment back into popularity. Equipment pieces selected were as follows: an upper body ergometer, stair stepper, rowing machine, any free weight equipment, and any variable resistance piece. The students were asked to research other vendor products with similar pieces of equipment and present their ideas about how they would reinvent the outdated equipment.

2. The Cardio Entertainment Equipment Challenge:

   Students were asked to research entertainment options on cardiovascular fitness equipment and make a recommendation as to how Matrix would change, improve, and update their workout display boards on cardio equipment, especially for college students.

TABLE 2: **How to Perform Research on Product Development**

1. Do a Wikipedia search for all main topics.
2. Look for blogs and/or chat rooms regarding the main topics.
3. Consider who else is involved (*e.g.*, fitness equipment manufacturers sell to hotels, but so do bathroom fixture manufacturers — what are they doing? Can you collaborate?).
4. Can education leaders in that industry be contacted?
5. Make a list of the people involved with the topic — the ''stakeholders'' — see if it sparks any ideas.
6. Go to http://www.kartendesign.com/, and look at their work with ModeMapping.
7. Conduct interviews with stakeholders to learn what trends, topics, industry news, or concerns are on the top of their minds. Take the information gathered from stakeholders, and do research.

3. The Active Older Adult Challenge:

   Students gathered research on product ideas for the active older adult. The students addressed questions like: "What kind of programs does the active aging population currently engage in, and what are other equipment vendors doing for this target population?"

4. The Self-powered Treadmill Challenge:

   Students were asked to develop a creative product console, marketing plan, and user introduction to a self-powered treadmill that would encourage saving energy for a facility.

Project Matrix Outcomes

Ideas for Matrix that came out of the student presentations were as follows:

1. The "Dated Equipment Challenge" winners suggested color coding dumbbells, so they are more appealing and easier to identify. This group questioned the traditional black dumbbells that are common in the fitness manufacturing industry. They also included having Matrix brand their name by displaying it on the ends of all dumbbells.
2. The "Cardio Entertainment Equipment Challenge" winners created a new product called "The Dash," which was a display board that participants could check out at a fitness facility and put on any piece of cardio equipment. Rather than having televisions on all cardio equipment, the students suggested checking out "The Dash" at the front desk and making it compatible with all pieces of cardio. Their invention included the ability to download music and movies while working out.
3. The "Eudemonic Revolution" was the "Active Older Adult Challenge" winners' invention. The students used the word "Eudemonic" because it stands for "producing happiness and well-being." Using a competitor's good idea, the students designed a new piece of equipment and made it portable, so it could be put in hotels, homes, and so forth. This device was enhanced with a technology option to make it more "user friendly" by providing educational clips via DVD on how to properly use the equipment.
4. The "Self-Powered Treadmill Challenge" included the students creating a marketing/incentive plan that would save the user monthly dues through incentives. The self-powered treadmill user would chart usage and get a monthly discount on their membership as an incentive for using the self-powered treadmill and saving the facility energy costs.

The Matrix Company is continually impressed with the creativity and innovative ideas of the college students. They were especially impressed with the student's ability to use technology with their innovations. The use of iPods, podcasts, and Web-based activity tracking were just a few ideas the students came up with. To report what specific outcomes occurred for Matrix is difficult because the design process is so complex. Many times, the students were verifying what Matrix already had in production, whereas other times, the students came up with innovative ideas (like Eudemonic Revolution) that the Matrix company officials had never thought of. The Matrix Company continues to encourage the relationship and funds the projects, so they can continue to benefit from the innovative ideas and branding opportunities in some capacity. The students, on the other hand, learned presentation skills, data analysis, team building, research methods, and conducting focus groups, similar to what is practiced in a business school setting.

OTHER INDUSTRY LEADERS LEVERAGE OUTSIDE SOURCES

The collaboration between industry and academia has been longstanding in the sport sector of the industry. Health and wellness equipment manufacturing companies, such as Nike, have collaborated with academic institutions to brand their products, as well as gain insights from future professionals. One such endeavor is the Nike Future Sole competition that offers high school students desiring to become shoe designers a chance to share and capitalize on their ideas. The winning students receive monetary rewards, along with a summer internship with Nike (7). In an

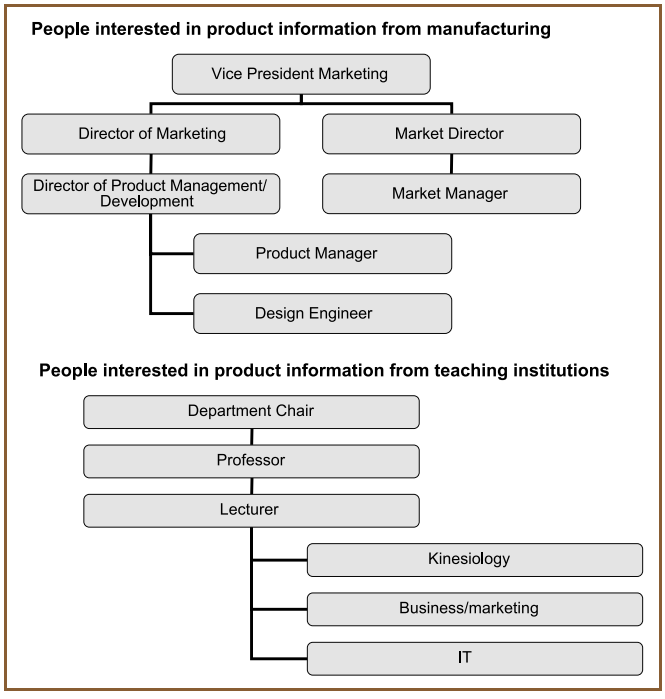


Figure. Flow chart showing sales/marketing titles where fitness educators can locate potential partners.

TABLE 3: **Components Necessary to Build an Interactive Learning Model**

• Motivated person or equipment manufacturer seeking objective information
• Motivated faculty member or group interested in providing or seeking interactive learning experiences
• Faculty member who can create an assignment and include it in a fitness management class
• Fitness manufacturing company who can provide product equipment information and insights
• Idea or problem to solve from the equipment manufacturing company
• Education on presentation skills before presenting the solution or idea to the company
• An award that will provide the student with an incentive
• A mock presentation with specific feedback given to the students on how to improve the delivery of their presentation

attempt to penetrate the beverage market in India, Pepsico India has partnered with the top 10 business schools in search of new innovative ideas. The company stated that this project provided students with a platform to apply their knowledge in a real-life situation. Initiatives, such as these, give companies good branding opportunities and new innovative ideas (8). Health and fitness companies can influence the market to their favor in the same way. The ability to stay abreast of future trends and innovative ideas is invaluable.

HOW TO CREATE YOUR OWN MODEL FOR TRANSLATIONAL EDUCATION

Two fundamental needs must be in place to build a model for a college or university and a manufacturing company to form a partnership. First, a person or group from the manufacturing institution must be genuinely interested in the information. Attending fitness equipment trade shows is one way to meet potential collaborators. Contacting an equipment vendor is another way. See the Figure for a flow chart on sales/marketing titles where fitness educators can locate potential partners. It is critical that the project is separate from sales to the institution. Second, the academic institution must have a curriculum complete with learning objectives that include and value a translational education approach to learning. Keeping these two needs in mind, it is important to note that getting the right people and groups together are a key to success. Other components important to creating your own project are outlined in Table 3 (Components Necessary to Build an Interactive Learning Model).

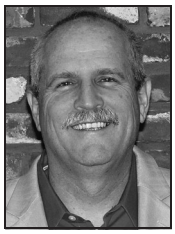
CONCLUSIONS

In this world of high technology, fitness equipment manufacturers believe that establishing personal relationships makes all the difference down the road. This translational education project provided a personal touch where the authors felt enlightened, involved, and genuinely positive about the project upon its completion. The IU students enjoyed the time away from the lecture approach to learning and gained valuable team-building skills and learned how to present their ideas to fitness manufacturers. It is difficult to measure outcomes from the project in a specific way because that was not the intention of the collaboration. At IU, there is talk in the hallways about a ''fun'' class where the winner gets cash for their good idea. On the Matrix side, Doug presents this information to his supervisor who continually is impressed with the creative ideas of this group. Project Matrix created multiple benefits to Matrix and IU. One student mentioned using the business knowledge gained from this project to pursue a business venture he said he never would have thought of had he not been involved in this project. Many students seek real experiences to learn. This project could not have been more real and certainly has been successful for all involved. It's time for business and academia to embrace each other's strengths and work together for the common good of enhancing healthy lifestyles for all. The authors encourage both manufacturers and educators to take a step into the world of translational education, using this model, to challenge students to be creative and potentially enhance the health and wellness of consumers of fitness equipment.

References

1. Aaker DA. *Managing Brand Equity.* New York (NY): Free Press; 1991. p. 1.
2. Asac B. Spanning the generations. *IDEA Health Fitness J.* 2009;6(7): 34–41.
3. Ferring D. Bridging education and training in aging and disabilities: towards translational education. *Int J Integr Care.* v.9 Apr-June 2009 [Internet]. [cited 2009 Aug 4]. Available from: http://www.livemint.com/2008/01/13230111/PepsiCo-hopes-students-will-ad.html.
4. Keller KL. *Brand Management: Building, Measuring and Managing Brand Equity, Upper Saddle River.* Englewood Cliffs (NJ); Prentice Hall; 2003. p. 50–1.
5. Lagrosen S, Lagrosen Y. Exploring service quality in the health and fitness industry. *Manag Serv Qual.* 2007;17:41–53.
6. Mullin B, Hardy S, Sutton W. *Sport Marketing.* 3rd ed. Champaign (IL): Human Kinetics; 2007. p. 171–87.
7. Nike Web site [Internet]. Nike Corporation; [cited 2009 Aug 4]. Available from: http://www.Nike.com/futuresole/.
8. PRdomain Web site [Internet]. PepsiCo's search for India's best brains to become India's advisors second edition of the contest for B-school students. PRdomain; [cited 2009 Aug 4]. Available from: http://www.prdomain.com.
9. Spectrum-Stanford Center for Clinical and Translational Education and Research Web site [Internet]. Stanford University: SCCTER; [cited 2008 May 28]. Available from: http://sccter.stanford.edu.
10. Tharrett S, Peterson J. *Fitness Management.* Monterey (CA): Healthy Learning Company; 2008. p. 33.

Carol Kennedy-Armbruster, Ph.D., ACSM HFS, is a senior lecturer and doctoral candidate in the Department of Kinesiology at Indiana University. She has worked in the academic and private setting as an educator, program director, and practitioner of fitness and wellness programs for more than 30 years. Her work is centered on functional training, health and wellness translational education, and group exercise instruction. She has twice received the Indiana University Trustees Teaching Award and is the coauthor of a Methods of Group Exercise textbook. She also is a member of the ACSM's Health and Fitness Journal® *Editorial Board.*



Doug Marquette, B.S., is the director of vertical market development for Johnston Health Technologies North America. He is responsible for the Government and Education markets for Matrix Fitness and specializes in the educational channels. He is directly involved with the development of the hospitality, multi-housing, medical, and active aging markets. He has 34 years of experience in the industry, which includes 15 years of experience in building, designing, and operating large recreation facilities.

Antonio Williams, Ph.D., is an assistant professor in the Department of Kinesiology at Indiana University. Williams research focuses on strategic brand management in the health and fitness industry. In ten years in the fitness industry, he has served in such capacities as strength coach, trainer, professor, and administrator.

CONDENSED VERSION AND BOTTOM LINE

Fitness equipment manufacturers develop/design equipment to meet the needs of fitness participants. Educators and fitness professionals focus on delivering education, programs, and experiences to enhance the skills and knowledge of college students. A collaboration of the two professions can produce an intriguing learning experience to benefit both. This article describes the beneficial interaction of a university collaborating with a fitness equipment manufacturing company. There is a need for collaborative education models between institutions of higher education and for-profit corporations. This article outlines how to recreate this translational learning experience.