

Using the Baldrige Process to Market An Information Systems Technology Curriculum

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The increased use of distance education within higher education has provided the impetus for educators to think differently about the audience they seek to influence. This is particularly true within the Information Technology (IT) field. Furthermore, renewed interest in outcomes-based education has moved educators to take greater stock in the use of industrial advisory boards for curriculum development, evaluation and improvement. Students and employers have become both customers and stakeholders in the implementation of curriculums, particularly IT curriculums because of the rapid change in technology and the need for current performance based education.

As academic institutions seek to develop partnerships and work more closely with industry a more balanced outcome based model needs to be developed. The Baldrige Award established criteria for both industry and education to move towards this balanced model; these outcome-based criteria include:

- To help improve organizational performance practices, capabilities, and results
- To facilitate communication and sharing of best practices information among U.S. organizations of all types
- To serve as a working tool for understanding and improving performance and for guiding planning and opportunities for learning.

To address these criteria, this paper proposes marketing strategies for curriculum implementation that develop the awareness, advantages, and value of students, incumbent workers, and employers utilizing the Information Technology program. Incumbent workers are those students that have been out of school for a period of time and are place bound usually by occupations and families. These strategies are unique for at least three reasons:

- First, in the context of the traditional educational model, this strategy involves leaving the campus and meeting potential (industry) program users face-to-face and listening to their educational needs and requirements.
- Second, it develops a bachelor's program directly in conjunction with an associate degree that is focused on incumbent workers as a student population and IT employer input.
- Third, it has recognized and integrated customer's education concerns into the program.

This paper is based on a National Science Foundation Advanced Technological Education (ATE) project to place an Information Technology option within the Engineering Technology at a Distance (ETD) program currently offered at the University of Central Florida.

Leaving the campus.

The more common method for involving industry into curriculum evaluation is to establish an industrial advisory board usually involving the industry members after the curriculum has been established. Using the criteria listed above, the methodology seeks to gain the input and acceptance of industry by meeting with the employers to find the best value in a curriculum that will serve the industry needs and meet the employee's education and training needs. This model is characterized by Jack Welch in his autobiography and is defined as the "vitality curve". Simply stated, is your organization's mission and business objectives aligned with your corporate personnel skills and employee education and training levels. Will your employees be able to meet the growth projections of your company's business?

Questions for industry, adapted from the Baldrige criteria, include:

General

- What are your organization's main services?
- What is your worker profile? This includes educational levels (including associate's and baccalaureate's degrees), workforce diversity, internships, and use of contract employees.
- What are your major technologies, equipment, and facilities?
- What is your competitive position?
- What changes are taking place that affect your competitive situation?

Employee Education

- How do education and training contribute to the achievement of your action plans?
- Does your education and training approach balance short and long-term organizational objectives?
- Do you seek and use input from employees on education and training needs and delivery options?
- How do you deliver education and training? Have you used distance learning?

The intention here is not to create a customized curriculum for a single employer, but to determine common elements that can be incorporated into a curriculum serving an industry segment. In a regional setting this requires meeting with IT industry partners to define curriculum outcomes.

Develop IT program.

For example, many of the community colleges with engineering technology associate programs in the state seek to use ETD for their program graduates. Their interest led them to contact employers of their associate degree graduates to make them aware of the At A Distance opportunity. The industry partners will be used to leverage ongoing support for the program,

determine training requirements, create and validate curricula, and provide student and faculty internships.

Without a question, all of the activities that are taken to market the new program are not revolutionary, but are quite ordinary. Yet, in the context of the traditional educational model, this model involves leaving the office and meeting potential program users (customers) fact-to-face. Having an idea of whom those customers are and how to reach them can be very helpful tools in this process.

Some strategies that might be used include:

- Work with local and regional IST employers to define and describe internships and career paths for two and four year IST degree holders.
- Work with local and regional IST employers to determine improved corporate performance and capacity through the use of four-year IST degree holders.

Evaluate and improve.

Following the process described in the above section, the evaluation of the above process is key to curriculum improvement. The table below gives an approach to the evaluation process.

Evaluation Plan

Outcomes	Indicators	Data Collection	Sampling
Information Technology program marketed to relevant industries in Florida.	<ul style="list-style-type: none"> • Establish universal access mode of communication and info exchange. 	<ul style="list-style-type: none"> • Checklist. 	<ul style="list-style-type: none"> • All locations participating.
	<ul style="list-style-type: none"> • Exchange of ideas and feedback on ETD activities from ET community. 	<ul style="list-style-type: none"> • Documents: copies of e-mail and other messages. 	<ul style="list-style-type: none"> • All locations participating.
	<ul style="list-style-type: none"> • Creation of interactive network of education and industry resources. 	<ul style="list-style-type: none"> • List of schools and companies forming network. 	<ul style="list-style-type: none"> • All locations participating.
	<ul style="list-style-type: none"> • Specialized courses to meet industry needs. 	<ul style="list-style-type: none"> • Document recommended changes/additions to courses. 	<ul style="list-style-type: none"> • For each course developed or modified
	<ul style="list-style-type: none"> • Create awareness of program across state. 	<ul style="list-style-type: none"> • Marketing plan. • List of advertisements and locations served. 	<ul style="list-style-type: none"> • All locations marketed.
	<ul style="list-style-type: none"> • Create awareness of exemplary programs and practices leading to adoption by other institutions 	<ul style="list-style-type: none"> • Marketing plan. • List of programs. 	<ul style="list-style-type: none"> • All locations marketed.

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	<ul style="list-style-type: none"> • Increased number of Associate graduates move into university Bachelor's programs 	<ul style="list-style-type: none"> • Enrollment counts. 	<ul style="list-style-type: none"> • All enrolled students.
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The process addresses what Peters and Waterman's book *In Search of Excellence* identified as the eight attributes distinctive in the process to evaluate and improve in all excellent companies, they included:

- Bias for action
- Close to the customer
- Autonomy and entrepreneurship
- Productivity through people
- Hands-on, value driven
- Stick to the knitting
- Simple form, lean staff
- Simultaneous loose-tight properties

The fourth attribute is the key that the process described addresses. An outcome centered organization needs to fully understand these requirements and translate them into appropriate curricula and developmental experiences. The outcome centered education is a strategic concept that demands constant sensitivity to changing and emerging student, stakeholder, and market requirements and to the factors that drive student learning, satisfaction, and persistence. ¹

Conclusion.

As higher education goes beyond its traditional boundaries to create useful and meaningful partnerships with corporate, government, and community agencies it must be prepared to market and create an awareness of its programs and service to these external constituencies.

Creating, packaging or reorienting educational programs for external, nontraditional consumers will take more than saying, "we have it, come sign up". It is necessary to be prepared to market these programs in terms of value to the customer beyond the education value. Defining a customer or constituents profile and developing marketing strategies to address the profile elements will go a long way to developing marketing strategies to address the profile elements will go a long way to developing the partnership you seek with external customers.

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Biographical Information

Dr. Lucy C. Morse is the Principal Investigator of the ATE project, Information Systems Technology Articulation. She is the Director of Engineering Technology at a Distance, which puts its focus on BSET degrees at a distance and has served both as a Malcolm Baldrige Award Examiner and a Sterling Award Examiner.

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