

**A VALIDATION STUDY OF UNIVERSITY LEVEL
FOOD AND BEVERAGE CURRICULUM**

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**In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy**

**by
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FOOD AND BEVERAGE CURRICULUM

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To my family – my sources of my love and motivation.

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A VALIDATION STUDY OF UNIVERSITY LEVEL FOOD AND BEVERAGE CURRICULUM

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ABSTRACT

The purpose of this study was to assess if new curriculum implemented by the University of Missouri's Hotel and Restaurant Management program is meeting industry and students' educational needs. The study sought to provide insight on the learning objectives of the food and beverage curriculum regarding the level of importance of each learning objective, as identified by employers of the program's graduates.

Using an online instrument, food and beverage related employers of graduates between May 2004-2009 (N = 80) were asked to participate in the study. A total of 48 employers (60%) completed the instrument. The mean responses for ninety-one percent of the learning objectives indicated a moderate or higher importance to what graduates should know and be able to do upon graduation. The additional nine percent still indicated somewhat important or higher which implied that only one to two respondents didn't agree with the consensus on the level of importance. Using the mean score cut-off of (M = 3.5), it can be concluded the new food and beverage curriculum is valid and in line with the needs of industry. Results showed that the most important learning objectives that students need to know and be able to do were in reference to cost controls, labor planning, and controlling labor cost.

CHAPTER I

INTRODUCTION

This chapter describes challenges faced by post-secondary institutions in regards to maintaining a curriculum relevant to the needs of the hospitality industry. It further depicts the significance of an industry driven curriculum in regards to students' success and attitude in industry upon completion of a degree, states the problem, addresses the need for the study, and introduces the conceptual frameworks upon which the study is based. Finally, definitions of terms and limitations of the study are addressed.

Background and Setting

Tourism is one of the largest industries in the world. In the United States alone, tourism generates approximately \$1.25 trillion in sales. A large portion of tourists' expenditures are in hospitality areas of lodging and food service. The tourism industry in the United States employs 8.2 million people (The Travel Industry of America, 2009). To that end, universities and colleges have developed and expanded hospitality programs to train and educate students for careers in food service management. Casado and Dereshiwsky (2007) stated that hospitality programs in higher education had a mission "to serve the needs of the industry; consequently, learner-centered practices in the classroom should be aimed at preparing students in anticipation of the situations they will face when hired by lodging, restaurant or tourism-related companies and organizations" (p. 1). Geissler and Martin (1998) claimed in their research that schools need to stay current in the preparation of hospitality management graduates.

Reid and Bojanic (2006) claimed that one of the crucial needs in the hospitality industry was to understand the psychology of the industry, especially customer behavior,

in order to be successful in the marketplace. Built on Bojanic's 1997 study of consumer attitude, Reid and Bojanic's 2006 study examined the four steps of the marketing planning process, defined strategies for developing new products and services, and compared the various forms of advertising media. Their claim is that all products, services, and strategies must be geared to the consumers' behaviors and preferences; failing to address the customers' psychology results in rejection by potential buyers. A case in point is Chef Gordon Ramsay (2006) writes that he admonishes his subordinates that the menu and marketing must be predicated on the target market's unique tastes and demographics. Some universities require that hospitality students take business and consumer classes, and others teach the basics of consumer behavior. In order to ascertain those elements, curriculum should include classes such as consumer behavioral psychology, marketing, and business classes (Lefever & Withiam, 1998).

The topic of cultural diversity in an industry-driven curriculum is addressed by studies such as Casado and Dereshiwsky (2007). These researchers noted that the current food service workplace contains a diverse workforce because of the continuing changes taking place in the United States' ethnic profile, immigration, outsourcing, and because of the effects of globalization on business practices. The impact of globalization on the hospitality industry has been addressed by Gee (1990, as cited in Clark & Arbel, 1993) who emphasized the need for cultural sensitivity and multicultural skills. Casado and Dereshiwsky (2007) claimed that the college classroom is a perfect laboratory in which to teach and demonstrate the lessons of managing a culturally diverse group, and urged teachers to develop teaching strategies beyond traditional ones because changes in the ethnic composition of our classrooms and the food service industry require a restructuring

of what was taught and how to teach it (curriculum and instruction). For example, Casado and Dereshiwsky (2007) advocated the use of systematically organized lectures, workshops, and seminars presented by specialists in the field of cultural diversity who provide or recommend scholastic articles and books emphasizing the importance of classroom practices to project multiple points of view. Their study found that students who were made aware of the value of diversity and the contributions that minorities make to the hospitality industry felt more comfortable working with other groups, and students who grew up in other cultures and other countries had ideas and perspectives that would benefit the whole class. In addition, students were taught that minority workers are the backbone of the food service industry. Casado and Dereshiwsky noted “if these workers were to quit their jobs tomorrow, the industry would come to a standstill in many parts of the country” (p. 2). Silva (2002) advocated including languages that are common in the workplace such as Spanish and English in the curriculum so that workers can communicate with each other. Outside of adapting to create an ethnically diverse work environment, studies show that a school can effectively teach teamwork for all work situations. An article by Bartlett, Probbler and Mohammed (1999) reported the effects of a team-building intervention on team process and team performance of hospitality student teams, compared to a control group. Effects on process were positive and significant on all criteria. Effects on performance were all positive, though not all differences were significant.

Future employers have high expectations of hospitality program graduates, and curricula must address those expectations. Lefever and Withiam (1998) performed a study of 46 professionals from the hospitality industry and tested the industry's outlook

toward the effectiveness of hospitality-education curriculum. Respondents expected to see improvements in practical and hands-on training as well as finance-related knowledge. Hospitality practitioners also expect graduates to possess technical abilities and realistic views of the industry, as mentioned in previous discussions of Casado and Dereshiwsky (2007), and Reid and Bojanic (2006). Lefever and Withiam (1998) found that the practice of periodic review of hospitality-education programs must be abandoned and replaced with ongoing review by regular contacts with industry representatives who visit the classroom or who participate in executive-education programs. These professionals bring with them the ever-evolving realities of the world outside the classroom, and contribute this knowledge to those in charge of the curriculum. Finally, Murphy (2004) stated that the tourism industry sees benefit in getting universities involved in training hospitality workers because hospitality curriculum could lead to more research and better data for predicting business. Murphy gives the example of Maine business owners, tourism officials, and academics who hope a proposal to create a hospitality curriculum in the state's university system will lead to more research about and a greater understanding of the hospitality industry. That research could help small businesses that make up the bulk of the industry react more quickly to changing market conditions and gain a better understanding of their customer base. This is just one business benefit to the creation of partnerships between stakeholders.

Raybould and Wilkins (2006) claimed that the industry driven curriculum of hospitality management degree programs must fulfill the needs of student, industry and academic stakeholder groups; hospitality management curriculum needs to meet both industry and student expectations by delivering the skill sets needed in the workplace and

the institutional demands for academic rigor. Highlighted by Gilbert and Guerrier (1997) in the role of management in the hospitality industry over the last three decades, it is essential that education providers have a clear understanding of industry and employer expectations of the skills that graduates should have upon completion of a degree. Additionally, Raybould and Wilkins concluded research needs to be undertaken regularly to update knowledge of expectations in a dynamic business environment. Studies of industry expectations of the competencies highlight the fact that hospitality graduates need a range of competencies to perform adequately and the skill expectations are consistent across most studies. There is recognition of the tension between the theoretical and practical aspects of the academic curriculum and, even as industry has recognized the importance and benefits of a theoretical framework (Gilbert & Guerrier, 1997), they were also critical of the length of time graduates needed to adapt to a workplace role (Whitston, 1998). Raybould and Wilkins found that industry representatives have also been critical of graduates' unrealistic expectations of the demands of hospitality management as a career. To that end, stakeholders need to find common ground; industry representatives need to communicate their expectations to students via feedback for curriculum.

Raybould and Wilkins (2006) concluded how important it is that academics work closely with industry to educate stakeholders about the content of academic programs, build realistic expectations of graduate skills, and help industry to design management traineeships that challenge participants and effectively refine management skills. Internal communications should be used early in the program to ensure that undergraduates have a clear understanding of the expectations of industry. Early intervention enables students

to set realistic goals, take responsibility for their own learning, and develop skill portfolios that give them the best chance of success in their desired career.

Taken together, the results of the preceding studies indicate curriculum should be updated in an ongoing process, students should be taught teambuilding and how to work with other ethnic groups, and that industry and academia need to work together to successfully blend educational theory with the reality of the work place. Experts cited have stated that students need to master more than the skill sets associated with their professions; they also need to understand how business works and the psychology of their customers. As for the precise curriculum that should be adopted at the University of Missouri's Hotel and Restaurant Management program, the curriculum developers need to work with industry professionals, former students, tourism professionals, and scholars from the hospitality field to customize a course of study that is optimal for preparing students for their professional careers.

Need for the Study

The transition from the classroom to the workforce can be difficult. One transitional complication for college graduates is not being prepared to cope with the demands of industry. Graduates anticipate industry will resemble the same structure experienced at institutions preparing them for their careers, and when it does not, the challenges of their employment create issues with their happiness and satisfaction. A greater reason for graduates not making a smooth transition into the workplace is because they are not equipped with the proper knowledge and skills needed for industry success (Peddle, 2002). In conducting the literature review, research has indicated an overabundance of skills needed in many industries, including the hospitality industry in

particular. In this regard, Jayawardena and Nettleford (2002) emphasized that, “The increase in numbers, the capacity of tourism enterprises and tourist demands for quality goods and services require well-trained personnel for the variety of jobs in the industry” (p. 215). Are university level hospitality programs preparing graduates to be successful in industry? Are university programs teaching to the knowledge and skills graduates need to be successful? If they are not preparing candidates for successful careers what areas of weakness exist in the current curriculum? Considering the importance of curriculum to college graduates success, it is critical that universities recognize a need for keeping it current and valid. Without a doubt, additional research needs to be conducted with regards to this issue.

Conceptual Framework

Quality curriculum development can provide a wonderfully systemic approach to teaching and learning. Quality curriculum could be defined broadly as all learning planned and guided by a training or teaching organization, including training which is carried out in groups or individually; inside or outside of a classroom; in an institutional setting or in a kitchen or dining room. (Rogers & Taylor, 1998) This process accounts for the learning students achieve, the activities and experiences which bring about the learning, the process of planning and organizing these activities, and experiences and documentations of the whole process (Taylor, 2003).

Given the process of developing curriculum is ultimately about people and outcomes, participation of stakeholders in the development process is essential. Worldwide there continues to be evidence of the benefits associated with utilizing a Participatory Curriculum Development (PCD) approach (Figure 1). Benefits often result

in greater effectiveness by creating partnerships between educators, students, and other stakeholders who have an interest in program outcomes (Taylor, 2003). Motivation, excitement, commitment, and ownership in a curriculum can be greatly improved by allowing students, teachers, professional community members, and policy makers to be engaged in curriculum development. Taylor (2003) stated this approach to curriculum development is the goal of PCD, by developing a curriculum through a network of experiences and information exchanged between the various stakeholders in an educational program.

However, in many cases the development of curriculum is neither systemic nor participatory. In most cases it occurs as an impromptu and reactive measure.

Development is guided by the upper echelons of organizations and fails to involve the inputs, experiences, and perspectives from an organization's network in industry.

Students pursuing careers in areas where self-motivation and diverse understandings of the content, such as agriculture, are not always ready to respond to challenges which spontaneously surface. Research credits this weakness to formal training programs not providing students exposure to nor preparation for dealing these challenges. Many higher education institutions become teacher-centered resulting in a passive learning experience for the learner, often times proving to be an ineffective training method (Taylor, 2003).

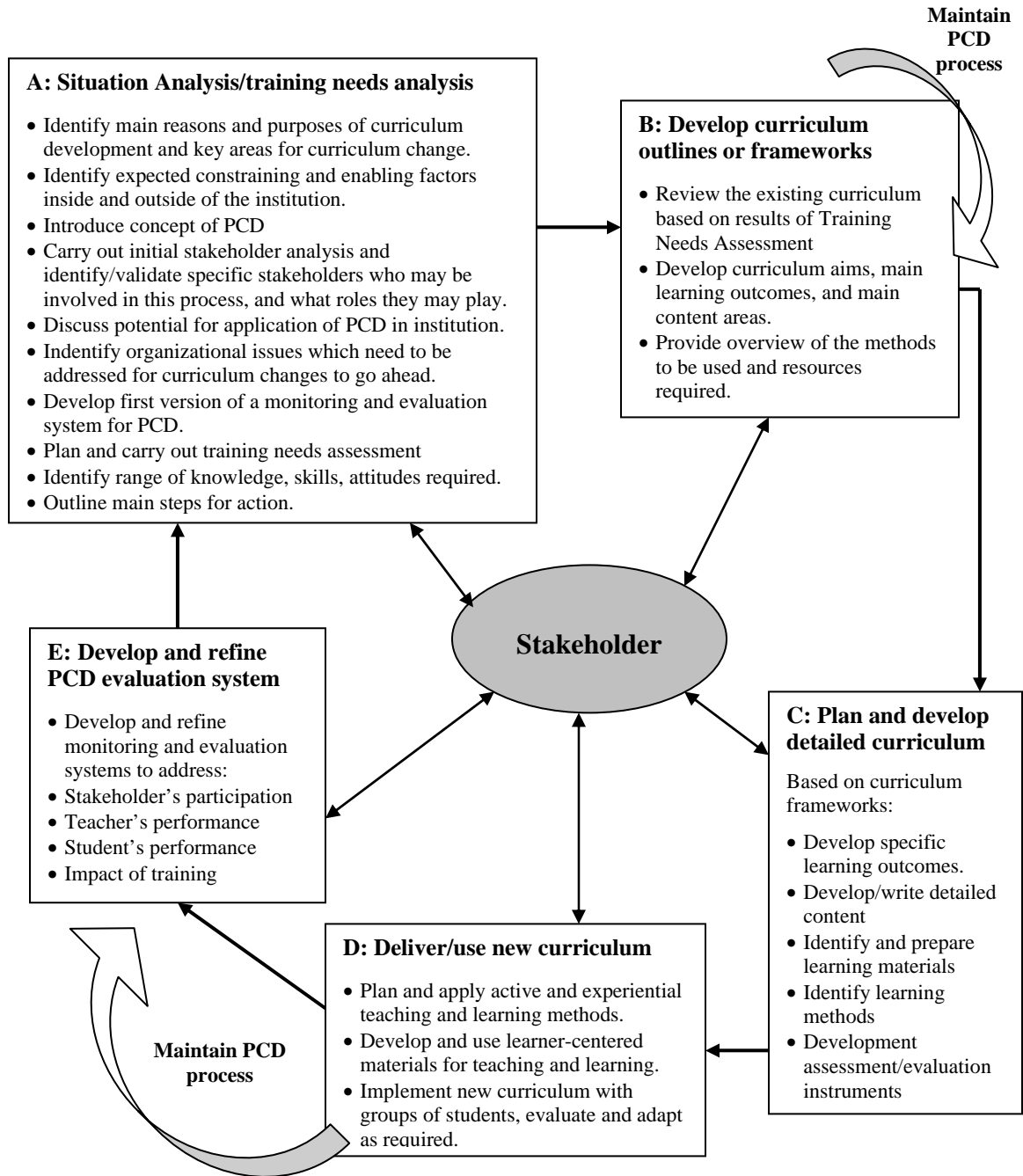


Figure 1. A framework for participatory curriculum development approach (Taylor, 2003)

Purpose of the Study

The purpose of this study was to assess if new curriculum being implemented by the University of Missouri's Hotel and Restaurant Management program will meet the needs of the industry for which it is preparing graduates. The study sought to provide insight on the learning objectives of the food and beverage curriculum regarding the level of importance of each objective, as identified by employers of the program's graduates.

Research Objectives

1. Describe the personal characteristics (age, sex, highest level of education, number of hours worked in a given week, years in the hospitality industry, current title) of employers of the University of Missouri's Hotel and Restaurant Management program graduates.
2. Describe the company characteristics (industry segment, annual sales volume, and number of employees) of the employers of the University of Missouri's Hotel and Restaurant Management program graduates.
3. Validate, through employers' perceptions, the importance of the learning objectives in the food and beverage curriculum.
4. Compare industry segments responses regarding their needs in the workforce.

Definitions

Service Orientation: Listening to and understanding the customer, anticipating customer needs; giving high priority to customer satisfaction (Fitzsimmons & Fitzsimmons, 2008)

Curriculum: A formal academic plan providing the process and essence of educational outcomes, comprising the purpose, design, delivery, and evaluation of an educational experience (Gaff & Ratcliff, 1997).

Food and Beverage Curriculum: The curriculum in place to trade students planning to pursue a career in a food and beverage related area.

Learning Objective: Commonly interchanged with performance objectives or learning targets, are defined as what participants will learn as a result of participating in an educational program (Mager, 1984).

Participatory Curriculum Development (PCD): A cyclic approach to curriculum development relying highly on the full participation of faculty, students, stakeholders. (Taylor, 2003)

Stakeholder: A person that has a vested interest in an organization or project. In the case of program and curriculum development it could include public officials, alumni, donors, students, faculty, and administrators (Caffarella, 2002)

Basic Assumptions

The following assumptions guided this study:

1. The respondent's had a vested interest in improving the quality of training and career preparation in the Hotel and Restaurant Management Program at the University of Missouri.
2. The respondents possessed sufficient management experience in the industry to complete the online instrument.
3. Respondents completed the instrument honestly and non-subjectively.

Limitations of the Study

The following limitations were recognized by the researcher:

1. The College of Agriculture, Food, and Natural Resources Career Services Office provided the names and contact information for industry partners. Although the

population was scrutinized for errors and purged of duplicates, the researcher had no formal means by which to verify accuracy.

2. Data collection was limited to Industry Partners who have hired University of Missouri Hotel and Restaurant Management graduates during the years 2004-2009.

CHAPTER II

REVIEW OF LITERATURE

Today, the hospitality industry is one of the largest employers in the world and is the fastest growing industry of all fields (Umbreit, 2008). Not everyone becomes part of the hospitality industry by the same path, though. According to Pilot (1999), “individuals can qualify for jobs in many occupations in more than one way, although generally, one way is predominant or preferred” (p. 8). Likewise, Jafari (2000) reported “there are a number of distinctly different models or policy frameworks for tourism/hospitality education at the undergraduate level” (p. 182). In addition, Lucas (2003) noted that,

Training can be formal or informal, applied selectively to particular workers, on- or off-job, accredited or non-accredited, occur over variable periods of time, and be provided by the firm or an outside body. A firms' ability and willingness to train depends on the available resources of time, money and staff” (p. 92).

Today, the prevailing or preferred approach for many industry professionals is to pursue a formal education in hospitality management from an accredited educational institution. The original frameworks for such hospitality educational programs were the European hotel schools, which remain well-respected; however, in recent years, an increasing number of university undergraduate programs have emerged that concentrate on providing education for hospitality industry professionals (Jafari, 2000). According to Jafari (2000), the most internationally recognized program is Cornell University School of Hotel Administration in the United States. Comparable curricular offerings are also provided at the University of Nevada at Las Vegas (U.S.), the University of Guelph (Canada), the Hague Hotel School (the Netherlands), and the University of Surrey (U.K.)

(Jafari, 2000). In fact, today, there are more than a hundred hotel schools around the world that provide aspiring professionals with the educational fundamentals for a career in the hospitality industry (Zurburg, Brey & Wilborn, 2007). Not surprisingly, the curricular offerings from the hotel schools located in different countries vary according to theoretical foundation and cultural considerations (Lucas, 2003). A representative sampling of hotel schools from several countries is provided in Table 1..

Table 1

Representative sampling of hotel school curricular offerings by country (Lucas, 2003, pp. 90-91.)

<i>Country</i>	<i>Description of educational approach for hospitality management</i>
France	A highly centralized system of public provision is based on nationally recognized qualifications at staged levels from the craft Certificat de l'Aptitude Professionnelle to the management-orientated Brevet de Technicien Supérieur. Higher education tends to be private, often with the cooperation of the local Chamber of Commerce
Italy	Training is highly fragmented, with no industry-level training body. Secondary education is available in Hotel and Catering Schools and Schools of Tourism. Placements in hotels last only one or two weeks and are ineffective. Tourism is a recent innovation in higher education, but there is no provision for hospitality.
Spain	Escuelas de Hosteleria provide craft training, while Escuelas de Turismo provide more general training leading to hotel reception,

<i>Country</i>	<i>Description of educational approach for hospitality management</i>
	travel agency or tourist guide work. A degree has recently been developed for both industries but is criticized by employers for its lack of practical skill development.
Netherlands	Training is well regulated and well developed. All adults are entitled to three days' training per annum. Apprenticeships involve four days' working and one day's study a week. Three higher-level state-run hotel schools offer degrees and 11 middle-level schools offer diplomas. In both cases there is a one-year industrial placement and qualifications are recognized internationally. Diploma courses are rigorous, including international law, languages and personnel management.
Germany	There is a highly regulated system based on apprenticeships, including two languages, which are subject to national practical and theoretical examinations. Two-year post-apprenticeship training is undertaken at a Fachschule. Most hotel general managers have taken this route. Most college graduates have a related degree.
United Kingdom	National Vocational Qualifications are a workplace competency-based assessment of tasks a worker can perform. There is no training requirement, and many workers do not complete enough modules to gain a qualification. There is no external examination. Over 300 colleges and universities provide courses ranging from craft-level

<i>Country</i>	<i>Description of educational approach for hospitality management</i>
	<p>National Vocational Qualifications to Masters degrees. Registrations for National Vocational Qualifications/Scottish Vocational Qualification have risen and the most popular is food preparation and cooking. Work-based training Modern Apprenticeships have high uptakes but also high drop-out rates. Enrollment on General National Vocational Qualifications and higher education courses has been falling. A new network of Sector Skills Councils replaced National Training Organizations in 2002. Most college graduates have industry-related qualifications. Recent employer-led initiatives in Britain include the BHA's Excellence Through People, which identifies and disseminates 'best practice' in recruitment and selection, development, recognition and reward, and communications.</p>
United States	<p>Vocational preparation is rare, and apprenticeships are very rare. Alternatively hotels have formal relationships with colleges for students, which are more formal where hospitality programs are taught. Twenty percent of food and beverage operatives are full-time students. There are no national hotel skill standards. A few high-profile universities provide qualifications recognized by the leading international and national hotel companies</p>

As can be clearly seen from Table 1, the various curricular approaches and philosophies concerning teaching students about the hospitality industry differ widely

throughout these educational institutions. What appears to be the most important factor, though, in the provision of such educational services is the relevance those curricular offerings have for the real-world work settings these students will likely encounter when they leave the halls of academia and enter the highly competitive world of hospitality management (Lucas, 2003). As Griffin, Gillis and Calvito (2007) emphasized, not only are the expected levels of performance in the workplace variable, “the competence decision varies according to the demands of the curriculum in the school system. The important thing is whether the student can meet the expectations of the workplace or the school system” (p. 20).

Unfortunately, these expectations may exceed aspiring professionals’ capabilities unless they are prepared for these eventualities through effective classroom training combined with some real-world experience (Newland, 1997). In this regard, although differences exist, large hotels typically consist of eight separate departments, each of which has a manager or director who directly reports to the hotel’s general manager; hotel departments generally include food and beverage, personnel, engineering, front office, sales, controller, housekeeping, and security (Newland). According to this author, “the food and beverage manager is responsible for the conduct of that department and held accountable when and if problems arise” (Newland, 1997, p. 45).

Clearly, such levels of responsibility can be a formidable enterprise for even seasoned hospitality professionals, and new entrants to the industry may be overwhelmed by the job requirements absent effective curricular offerings that can provide them with the tools and expertise they will need to succeed in this highly competitive field (Jayawardena and Nettleford, 2002). Indeed, one of the recurring themes that emerges

from the review of the relevant literature is the need to train a new cadre of hospitality professionals that are capable of delivering these levels of services while also ensuring that their business practices are environmentally responsible. According to Jayawardena and Nettleford (2002), “The tourism sector needs to begin creating a new “mindset” for the younger generation in order for them to become motivators and assist in changing the more mature, molded attitudes of previous generations” (p. 109) Programming is also needed to provide fixes to and retraining for experience employees to break bad habits they have grown use to in the industry. Yet other authorities have cited the need for food and beverage professionals at all levels to address the growing incidence of obesity among the American population by providing more healthy alternatives in their offerings (Sugarmann & Sandman, 2007).

In this environment, identifying effective approaches to providing food and beverage professionals with the specific types of training they will need to succeed in real-world settings has assumed some new relevance and importance, but it has also become far more complex than in years past (Taylor, 2000). For instance, Taylor pointed out that, “Many people equate personal interaction with customer service, while few recognize the complex business systems that go on behind the scenes and the processes that provide the context within which overall customer service is given” (p. 36). Truly proficient hospitality professionals, of course, make the provision of such high levels of customer service appear effortless, but such expertise is not gained through coursework alone. There has been growing recognition among hospitality industry educational providers that a more holistic approach was needed to help provide students with the well-rounded training they will need to succeed (Jafari 2000). Jafari (2000) reported that,

“A general management with a tourism focus model of programming seeks to broaden the educational experience of students while still providing a strong industry orientation” (p. 167).

Curricular offerings based on this approach can be categorized based on their structure and content. In this regard, the holistic models of the educational institution’s core curricular offerings emphasize general management education; however, these offerings also include the liberal arts, languages and mathematics as program requirements (Jafari, 2000). This author added that, “Rather than having students concentrate on more advanced courses in a particular functional area of business, this type of curricular offering is structured to enable students to understand tourism by taking a number of courses related to its subsectors” (Jafari, p. 167). Likewise, Jafari suggests that empirical experience is increasingly being recognized as an important component of the curriculum. As Jafari emphasized, “In order to obtain some of the operational knowledge and skills provided by hotel schools, tourism programs frequently include a number of practical work terms as an integral part of the learning process” (p. 167).

Indeed, practical work opportunities have increasingly been recognized as an important component of any hospitality industry training program. Based on their interviews with ten hospitality industry professionals working in Hawaii, Gibson, Tesone and Buchalski (2000) found that even the best classroom instruction could not replace the insights that could be gained through real-world experiences. In fact, despite significant levels of formal education, a consensus among these industry professionals was that there are only three actual ways to learn hospitality management today: trial and error, modeling, and mentoring (Gibson et al., 2000). According to these authors, “The group

considered mentoring to be the most efficient learning method. The group closed the discussion agreeing with a consensus comment that the hospitality industry would not be likely to embrace formal mentoring programs on a broad basis” (Gibson et al., p. 56).

Of the hundred or so hotel schools in existence today, one educational institution that has taken the need to incorporate real-world learning opportunities into its curricular offerings is the Kemmons Wilson School (KWS) of Hospitality and Resort Management which was launched in 2002 (Zurburg et al., 2007). According to Zurburg et al. (2007), “The \$15 million, 138,000-square-foot building is located on the campus of the University of Memphis as part of the highly-accredited Fogelman College of Business & Economics” (p. 11). The founders and faculty at KWS appear to have embraced the need to provide their students with as much real-world experience as possible as part of their educational experience. For instance, the school’s Web site clearly states: “Our curriculum stresses the hands-on administration of unique, day-to-day situations specific to the hospitality industry, including marketing and sales, beverage and food management, and human resource management” (The school, 2008, p. 2).

KWS also places a high priority on educating tomorrow's hospitality leaders in the most efficient manner possible through both classroom work as well as internships in real-world hospitality settings as follows:

1. KWS students earn their Bachelor of Business Administration (BBA) in Hospitality and Resort Management by completing a 120-credit-hour curriculum comprised of 42 credits from courses within the Fogelman College of Business & Economics, 41 credits in General Education courses, 9 credits for electives, and 28 credits from specific courses in Hospitality and Resort Management; this

segment of the educational experience provides students with a solid foundation for a broad range of career options available in the hospitality industry today.

2. A 1,200-hour internship program is also required for graduation from the KWS program; students are counseled on selecting from a large range of internship opportunities offered by the many companies working with the school to assure the right work experiences to support the students' career choices. In this segment, KWS students are provided with instruction concerning the cultural elements of the global hospitality business and learn to appreciate the impact of business decisions on the organization's profit as well as their responsibilities to the larger society in which they compete. Students explore how information technology is integrated into the business, develop the ability to define problems and research solutions, develop critical thinking and decision making skills, form effective oral and written communication skills, and investigate the application of management theories and concepts into the real world of the hospitality business. For students to acquire these skills and abilities, learning takes place within a team environment where every opportunity is available to learn from the faculty and from other students and industry leaders (Zurburg et al., 2007)

The Kemmons Wilson School has partnered with a number of industry leaders in the Memphis, Tennessee area to provide this level of training for its hospitality industry students, including the Atlanta-based InterContinental Hotels, the franchisor for Holiday Inn and Holiday Inn Express, as well as Crowne Plaza, Candlewood Suites, Stay-bridge Suites, Indigo Hotels, and InterContinental (Zurburg et al., 2007).

Besides these major industry players, the KWS curriculum also receives support from Hilton Hotels through their support center located in Memphis for Hampton Inns, Embassy Suites, Homewood Suites, and Hilton Garden Inns (Zurburg et al., 2007). According to these authors, several organizations, including the Metropolitan Memphis Hotel and Lodging Association, one of the strongest local hotel organizations in the U.S., works throughout the year to support the school and its students by offering scholarships, internships, and career employment opportunities. “The Peabody Hotel Group extends a well-structured internship program which benefits students by allowing them to experience the service environment of a unique, historical hotel with a four-star service rating” (Zurburg et al., 2007, p. 11). There are a number of advantages to using this collaborative approach to the provision of educational services for professional aspirants to the hospitality industry for the students involved as well as the industries that support them because this school is graduating trained professionals who are capable of hitting the ground running because they have the educational tools and empirical experience they will need to succeed in the competitive food and beverage field in the future (Zurburg et al., 2007). In his analysis of the curricular offerings at the Wilson School of Hospitality and Resort Management, Taylor (2000) provided the following list of core course requirements:

1. Fundamentals of Accounting 1
2. Fundamentals of Accounting 2
3. Introduction to Business Microcomputer Applications
4. Introduction to Management Information Systems
5. Legal, Social, and Political Environment

6. Business Finance
7. Principles of Marketing
8. Production and Operations Management
9. Organization and Management
10. Business Communications (writing intensive courses)
11. Business Policy (integrative course)

In addition, one of the following courses is also required:

1. International Economics
2. International Monetary Economic Theory and Policy
3. International Finance
4. International Business Communications and Negotiation
5. International Management
6. International Marketing
7. Import/Export Marketing
8. Hospitality and Resort Management Major:
9. Hospitality and Resort Industry Colloquium
10. Hospitality and Human Resource Management
11. Hospitality and Services Marketing
12. Managing Hotel and Resort Operations
13. Information Technologies for Hospitality and Resort Management
14. Properties Development and Planning
15. Food and Beverage Management
16. Internship in Hospitality and Resort Management (Taylor, 2000, p. 36).

Based on the findings of their study of curriculum development initiatives for various industries, Griffin et al. (2007) provided the following principles and guidelines for developing quality-based competency assessments for the hospitality industry today:

1. The system of assessment and reporting must be situated in a theory of learning and assessment.
2. The procedure and assessment must satisfy both criterion- and norm-referenced interpretation.
3. The model, approach used, assessment method, materials and decisions must be transparent and externally verifiable through a formal audit process.
4. The assessment procedure and the model must be resource-sensitive in both development and application.
5. The model and the approach to assessment and reporting must accommodate the existing assessment procedures that workplace assessors have been trained to use with minimal change.
6. The model and its procedures should be accessible to subject matter experts.
7. The procedure must have both face and construct validity.
8. The procedures must be demonstrably fair, equitable and unbiased.
9. The model must be communicative and satisfy the information needs of stakeholders in a quality assurance context that must be accommodated.
10. The scores and assessments must be amenable to statistical and or consensus moderation to ensure consistency of decisions and accuracy of score. (p. 89)

Griffin et al, concluded that this set of recommendations is appropriate for a joint assessment of both competence as well as quality.

A number of external forces have also emerged in recent years that will challenge even the most comprehensive educational approach to training new hospitality industry professionals in some geographic settings because of the cost factor involved. As McIvor (1999) emphasized, the adage you get what you pay for is especially true when it comes to the hospitality industry and some brands are willing to accept a trade-off in the quality of service provided for the cost savings that result from using untrained personnel in professional capacities. McIvor cautioned that in some countries,

this tendency only serves to mask more fundamental problems within the industry. Standards of service have been criticized as low, with inadequate training for staff in a variety of support services. This has been accompanied by the refusal of many employers to recruit those trained in hotel schools because unqualified workers are cheaper to hire and fire (1999, p. 19).

Finally, curricular offerings in the future will need to incorporate a technology component to help students keep abreast of the fundamental changes innovation is bringing to the profession. As Pilot (1999) emphasized, “Rapid technological advances, growing foreign competition, and changing business practices will continue to confront tomorrow's workers” (p. 8). This observation was supported by the findings of a recent study of 328 hospitality managers in the service industry in the United Kingdom. The results of this study showed that the adoption of technological supported solutions did not relate as much to cost as it did to management attitudes concerning its use, and that such attitudes were shaped by the types of training experiences the professionals received (Bassoppo-Moyo, Bassoppo-Moyo & Dube, 2002). According to the results of the survey cited by these authors, “about 50 percent of U.K. [hospitality] directors have only

rudimentary knowledge about [Information Technology] IT or are anti-technology” (Bassoppo-Moyo et al., 2002, p. 290).

Theoretical Framework of New Curriculum

One can assume the service orientation is largely based on the cultural values and/or personality. However, such service orientation was found to be linked with training and development in preparing the individuals for such service (Charlesworth, 2007). The importance of training can be assessed in the context of the importance of education in hospitality sector in general. In that regard, it can be stated that the educational context of educational programs can be viewed differently for reasons that are largely linked to the practical aspect as an outcome of the education (Charlesworth).

Such emphasis on practical outcome supports the opposition to education as merely an accreditation, and in that regard, “it would truly be a bleak future in which universities were populated by students whose sole aim was to gain appropriate accreditation for future employment selected on the basis of payback or on average rate of return” (Alexander, 2007, p. 213). Supporting such concerns, the theoretical framework of the new curriculum, “emphasizes the preparation for a transition from a class into a workforce, is mainly in line with opinions on hospitality education with a strong emphasis on practical skills acquired in specialized accommodation, and close connections with the industry” (Alexander, 2007, p. 213). As defined by the Higher Education Funding Council for England (HEFCE), the practical elements of the curriculum are those which “differentiate the subject from mainstream business and management courses” (HEFCE, 1998, p. 3).

Some of the aspects that can be related to the business and mainstream courses are essential to the hospitality curriculums. The hospitality sector is a business with defined products, services, and consumers (Reid and Bojanic 2006). Thus, Reid and Bojanic indicated the need for the hospitality industry to understand the psychology and behavior of consumers in order to understand their preferences. Thus, the combination of behavioral psychology, business, and marketing should be included in the curriculum.

Glee (1990) globalization is an influential factor that should be considered in the curriculum as it relates to cultural-diversity in the curriculum as well as in the hospitality industry. The impact of globalization on the hospitality industry in particular was emphasized cultural sensitivity and multicultural skills (Gee, 1990), Referencing specific learning styles, a study by Charlesworth (2007) supported the link between culture and learning styles, from which implications can be seen in optimizing the courses for diversity. Charlesworth supports the suggestions of Casado and Dereshiwsky (2007) on developing teaching strategies and using systematically organized lectures, workshops and seminars presented by specialists in the field of cultural diversity.

Additionally, the ability to assess the trends of the industry as well as to conform to them can be seen as an important aspect, expected from hospitality education graduates (Charlesworth, 2007). A study from Lefever and Withiam (1998) measured the expectation of 46 hospitality industry professionals' views of hospitality-education curricula. The results showed that realistic views on the industry as well as practical skills were expected from graduates. Bringing the realities of the industry to the classroom can be seen among the priorities of the curriculum, which could be implemented through the abandonment of the practice of periodically reviewing curriculums in favor of regular

contact with industry representatives visiting classroom or participating in executive-education programs (Lefever and Withiam). Another approach to closing the gap between the classroom knowledge and the industry involves changing the perception of the graduates toward their career (Chi & Gursoy, 2009). This gap could be closed by linking industry expectations with resume-building activities like “hospitality-related internship experiences, taking more course work, developing networking skills, and participating in extracurricular activities like hospitality student clubs/societies, fund-raising initiatives, and community involvement” (Chi & Gursoy, 2009, p. 308).

Adaptation to a workplace role can be seen as a concern of industry representatives for graduates of hospitality education (Raybould and Wilkins, 2006). Raybould and Wilkins (2006) indicated several approaches for closing the gap between the industry and education. Among those approaches are internal communications, early interventions, management traineeships, and the development of skills portfolio. In addition, an important career success factor was identified which outlined the importance of internship as the most important factor for the success of career services (Chi & Gursoy, 2009). The role of the institutions as it relates to internships involves securing quality internships for students, keeping track of progress, and evaluating performance. These internships force students “to start early in getting involved in the work world, gradually build up their resume and their knowledge, skills, and abilities (KSA), and eventually be ready for the real world challenges when it is time to graduate” (Chi & Gursoy, 2009, p. 314).

Participatory Curriculum Development

The core model in curriculum development is based on Participatory Curriculum

Development (PCD) (See Figure 1).

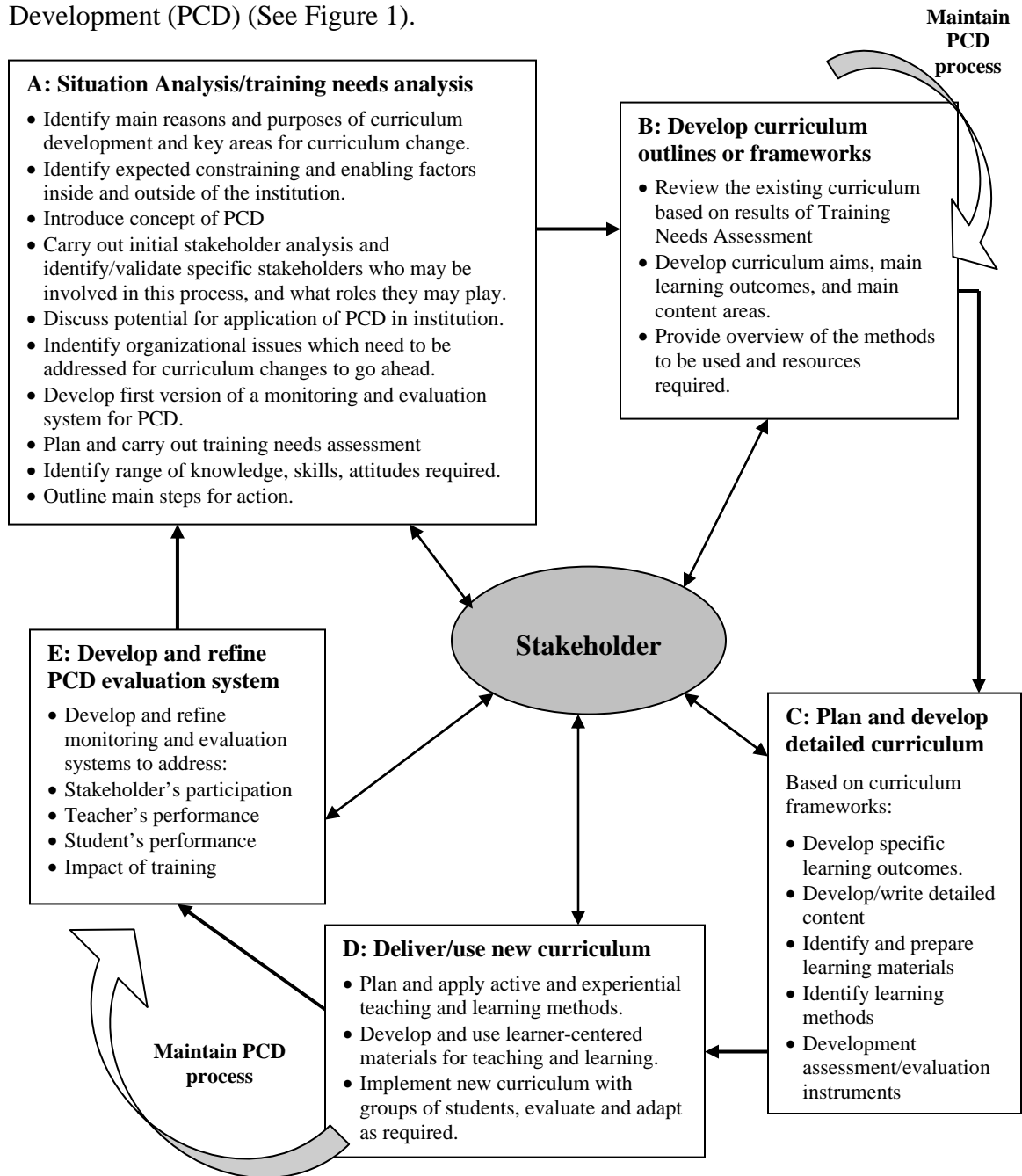


Figure 1. A framework for Participatory Curriculum Development Approach (Taylor, 2003))

As the title implies, the essence of the development lies within the concept of participation and contribution. The model consists of two distinct approaches: the development of the curriculum and the participation of stakeholders. The basis of the model is to implement an industry-driven curriculum, in which the curriculum is “a dynamic instrument that reflects the educational objectives that are to be attained and the educational experiences that can be provided to achieve them” (Taylor, 1999 p. 29).

According to Taylor, the main processes in PCD model can be seen in the following steps:

Identification of stakeholders: PCD is concerned with a wide array of stakeholders, whose experiences are to be drawn in a structured manner to plan, develop, implement and evaluate a curriculum. Thus, the main element in developing the curriculum is for the stakeholders to be identified.

Assessment and analysis of the situation and its needs: this step is concerned with gathering all the information needed for the assessment from sources including previous curriculum feedback, educational and field researcher, educational and field experiences, and others.

Setting the direction: With the situation assessed, the main direction for the curriculum is established by setting the main objectives for the curriculum and establishing its correspondence to both the educational policies and the mission of the educational institution for which the curriculum is being developed.

Planning and implementing the curriculum: this step is concerned with the process of research and consultation in developing the curriculum drafts, and their implementation

in accordance with all the input and the feedback collected during the process of planning.

Evaluation: this step is an intermediary step in which drafts of the curriculum are evaluated, and the results of curriculum implementation are taken into account.

It should be noted that these processes are centered on the participation, as the core of PCD, and accordingly, it can be stated that these steps reflect a cycle. In that regard, since the objectives will constantly change, there is “a need for continual curriculum reform as society itself develops” (Taylor, 1999, p30.). Since developing an industry-driven curriculum was established as one of the directions that hospitality education should take, the selection of the stakeholders should be performed in accordance with that in mind.

It could be stated that the curriculum review currently performed by educators can be reflective of a PCD, as the review board is certainly part of the stakeholders. Nevertheless, there are characteristics of the PCD model, which render review boards limits. Such characteristics, which distinguish the review boards from PCD, include a non-hierarchical, top-down approach, the focus on content, and differentiation in involvement. Thus, the PCD model is different in terms of its main purposes and goals. The appropriateness of the PCD model to the hospitality education sector can be seen in the conformance of the goals, “where the main goal of PCD is to develop a curriculum from the exchange of experiences and information between the various stakeholders in the education and training program” (Taylor, 1999, p. 30).

This exchange of experiences and information is expected to close the gap between the outcomes of class learning and the needs, demands, and expectations of

stakeholders. This can benefit graduates of hospitality education where the ability to assess the trends of the industry as well as to conform to them can be seen as an important skill. A study by Lefever and Withiam (1998) measured the expectation of 46 professionals in the hospitality industry with regards to hospitality education curricula. The results showed that realistic views on the industry as well as practical skills were expected of graduates, indicating role of stakeholders' participation is to bring the realities of the industry to the classroom. This is similar to the way the potential of PCD was first demonstrated within the field of natural resource management, adjusting the curriculum for responsiveness to global changes as well as the inclusion of relevant local content that has direct application to a particular context (Taylor, 1999).

Program Background

Hotel and Restaurant Management (HRM) is a science-based management program, in which the core of the curriculum in the program can be evaluated through its outlined objectives. The emphasis is put on the demonstration of leadership skills, engagement in entrepreneurial activities, understanding global business environment, and the involvement in professional development (University of Missouri, 2009). The evaluation of educational objectives is based on the relationship between these objectives and the educational outcomes. The connection between class-based skills and the field-based professional skills was established through the classification of educational outcomes into two dimensions. These dimensions can be paralleled to the areas of theory and practice, in which the theoretical framework is related to the general management knowledge and skills, while the practical aspect is related to functional knowledge, skills, and abilities, specifically related to the hospitality industry.

Following the PCD model, the identified stakeholders included the educational staff (faculty members of University of Missouri-Columbia HRM program), both graduate and undergraduate HRM students, alumni from the program, and the industry advisory board. A review based on feedback from the alumni, the students, and the industry was conducted to develop a curriculum with an increased emphasis on the students, and curriculum. Relating the areas for improvement in the program and the strategic plan to the theoretical framework discussed earlier, several points of focus can be established. In terms of the faculty, additional courses were developed, and priority was placed on the development of additional track areas. To date, three new tracks have been implemented. These include a food and beverage track, rooms and lodging track, and a conference and event management track (University of Missouri, 2009).

The review of the program is equivalent to the last step in the PCD where an analysis and assessment of the situation is conducted. The revisions to the program's curriculum include, in addition to common industry knowledge base, several support courses enhancing the learning provided by the common knowledge courses. The curriculum includes three professional specialized of Hospitality Management: lodging, food service, and convention and event. The fact that the internship experience receives an equivalent number of credit hours to other base subjects within hospitality management such as strategic management and hospitality marketing helps to indicate its importance as a bridge between classroom learning and real life experience.

Missouri's HRM program stays connected to the trends of the industry through an excellent industry advisory board, providing advice and expertise to the program. Identifying new industry partners and adding them to the board will increase the diversity

of the hospitality fields. These new board members contribute to the step of identifying stakeholders in PCD models, in which industry advisory board can be seen as major addition to existent stakeholders. The cooperative aspects includes working with the board to review and revise the educational programs to meet the needs of the industry. Accordingly, the program plans to identify and build an alumni network, which will provide valuable support in terms of mentoring students and providing fundraising capacities.

The step of setting the direction for the curriculum can be seen through a measurement of the relationship between the educational outcomes and their conformance to the established educational objectives. The conformance between the theoretical framework and the program's curriculum indicate two important aspects. The first is that the area of research in hospitality education is aware of the existent problems in non industry-driven curriculums. Accordingly, the identification of problem areas outline the constant improvements in this area, which combined with the growth in the industry in general, put major emphasis on the educational aspect.

The planning step of PCD model is established through the main propositions to the curriculum. It can be seen that despite the general focus on the practical skills, there is a reliance on skills that are appreciated and important for the industry, and which are considered fundamental. Among the skills identified in Lashley (2003) (as cited in Alexander (2007)), "people management skills, business acumen and commercial awareness") (Alexander, 2007, p. 215). These skills differ from those of operational training, which are covered in the curriculum's Professional Specialized Areas.

CHAPTER III

METHODOLOGY

Purpose of the Study

The purpose of this study was to assess if the new curriculum being implemented by the University of Missouri's Hotel and Restaurant Management program will meet the needs of the industry for which it is preparing graduates. The study sought to provide insight on the learning objectives of the food and beverage curriculum regarding the level of importance of each objective, as identified by employers of the program's graduates.

Research Objectives

1. Describe the personal characteristics (age, sex, highest level of education, number of hours worked in a given week, years in the hospitality industry, current title) of employers of the University of Missouri's Hotel and Restaurant Management program graduates.
2. Describe the company characteristics (industry segment, annual sales volume, and number of employees) of the employers of the University of Missouri's Hotel and Restaurant Management program graduates.
3. Validate, through employers' perceptions, the importance of the learning objectives in the food and beverage curriculum.
4. Compare industry segments responses regarding their needs in the workforce.

Research Design

This study utilized descriptive-correlational research methods to address questions regarding the industry's perspective of the relevance of the food and beverage curriculum at the University of Missouri's Hotel and Restaurant Management program. Ary, Jacobs,

and Razavieh (2006), described correlational research as “nonexperimental research that investigates whether there is an association between one or more variables” (p. 376). Such studies employ employee questionnaires and interviews to gather information from those being studied. In keeping with the literature on research design, this study utilized an online instrument to gather information regarding industries needs concerning MU’s food and beverage graduates.

In this study there was one dependent variable – terminal objectives of the food and beverage curriculum. Additionally, there were several independent variables of interest. Independent variables included: age, sex, highest level of education attained, years in industry, number of hours worked per week, number of employees, and industry service segment.

Population

The target population consisted of food and beverage operations who have hired University of Missouri’s Hotel and Restaurant Management program graduates during the last five years. May 2004 – May 2009 ($N = 86$).

The frame for the study was acquired from the College of Agriculture, Food, and Natural Resources’ Career Services Center and cross-referenced with the industry relations data base in the HRM program administrative office. To account for potential frame error and ensure accuracy, the list was scrutinized for errors and omissions and purged of duplicates. Company names, point of contact names, and email addresses were reviewed to be certain information was correctly reported. Corrections were made as necessary prior to the start of data collection.

Instrumentation

A single questionnaire was utilized for the collection of the data. An online instrument, the University of Missouri's Hotel and Restaurant Management program curriculum validation instrument (Appendix A), was distributed via email to industry partners to collect quantitative information relating to curriculum needs of a program preparing future food and beverage managers. An online instrument was used for both ease in collection of information from subjects all across the United States and due to the electronic form of contact information provided for each of the industry partners.

The University of Missouri's Hotel and Restaurant Management program curriculum validation instrument was created and distributed using Hosted Survey™, a web-based survey software application. Hosted Survey™ was selected based on previous MU successes with the application, academic pricing, and its wide-ranging design and layout options.

The University of Missouri's Hotel and Restaurant Management program curriculum validation instrument consisted of two sections. Section I utilized a modified needs assessment format to identify the level of importance of each of the terminal objects in the new food and beverage curriculum. A total of 55 items were included in this section, which was divided into six pages in the online format to aid in usability.

The items were developed after a complete review of all academic courses in the University of Missouri's Hotel and Restaurant Management program curriculum. The instrument items were identified and then placed in one of six competency areas (Food Service Sanitation, Culinary Fundamentals, Cost Accounting Controls, Operational

Service Management, Beverage Management, and Commercial Food Production/Management).

Industry partners were asked to identify their perceived level of importance for each of the 55 objectives from the courses specific to the University of Missouri's Hotel and Restaurant Management program's food and beverage curriculum. The importance was rated using a five-point response scale. The response scale used was:

- 1- Not Important
- 2- Minor importance
- 3- Somewhat important
- 4- Moderate importance
- 5- Very important

Section II of the questionnaire consisted of nine personal and company characteristic questions. These questions allowed the responding industry partner to expand upon their position of employment, length of time in industry, number of hours worked per week, academic level, sector of service, and number of employees under their supervision as well as demographic information relating to age and gender.

Validity and Reliability

Ary et al. (2006), described validity as the ability of a questionnaire to measure what it purports to measure. For the purpose of this study, two types of validity were examined: face and content. Face validity is simply the ability to ensure the instrument appears valid for the intended purpose. Gall, Gall, & Borg (2003) noted content validity is used to assess whether or not the items in the instrument represents what the objectives dictate. To ensure the instrument was correctly constructed, a panel of experts was

established to ensure face and content validity. The panel ($N = 5$) consisting of University of Missouri faculty (Appendix B) made suggestions and modifications that were then made to the instrument.

The reliability of the instrument was also analyzed. Gall et al. (2003) defined reliability as the degree to which results could be obtained by other researchers if the study was repeated using exactly the procedures, instruments, and measures as the original researchers. When discussing reliability, it is important to consider Classical Test Theory. The premise of Classical Test Theory is the score a respondent would receive on a specific instrument is connected to a true score, or a score that would prevail under ideal conditions (Ary et al., 2006). When reliability is properly examined, two types of errors can normally be controlled: random errors of measurement and systematic errors of measurement. Ary et al. (2006) defined random error as error that is a result of pure chance. Systematic error is error dealing with systematic changes that result in measurement changes leading to validity problems.

Prior to the execution of the research, a pilot study was performed to employ a test-retest principle for aiding in determining reliability. The pilot group consisted of 33 seniors in the University of Missouri's Hotel and Restaurant Management program enrolled in the food and beverage capstone course. These students were selected based on their similarities in their understanding of the industry demands after having completed all their coursework and management internships in the food and beverage industry. This allowed for the instrument to be used in its original form.

The pilot group completed a paper version of the online survey. Each participant responded to Section I of the instrument by rating their perceived importance of the 55

course objectives. Two weeks later the same group received a second paper version of the on-line instrument. Of the original 33 participants, 31 were present during the meeting time in which the second assessment was conducted. Coefficients of stability were calculated for each of the 55 items on the instrument using the pilot test data (see Appendix C). With intent to find the most reliable measure of consistency and reliability, correlations coefficients were employed. The resulting coefficients ranged from .70 to .96. Nunnally (1978) indicated most social science research uses .70 as the lower threshold for acceptable reliability coefficients. With these perimeters in mind, Section I of the instrument was deemed reliable. As a result of the pilot test, the researcher established an estimated completion time and added clarity on open-ended questions within each of the instrument curriculum sections.

Data Collection

As directed by Dillman's (2007) updates, a modified concept of *Tailored Design Method* was utilized to guide the data collection process. Typically, Dillman's design is used for mail-based instruments and includes five contacts with participants: a) a pre-notice announcement; b) a second contact which includes the instrument; c) a follow-up reminder/ thank you post card; d) a replacement instrument; and, e) a final contact which includes invoking any special procedures. For the purpose of this project the five contacts were modified to allow for web based execution of the survey (2007).

Instead of a pre-notice email, the first contact made to the industry partners was a personalized e-letter (Appendix D) explaining the purpose of the study and the process for completing the instrument. The e-letter also addressed Institutional Review Board related issues of compliance, voluntary participation, and who the participant should

contact with questions. The e-mail was co-signed by Dr. James Groves, Department Chair, for the HRM program. This first contact was established on March 30, 2010. Also contained in the e-letter was the web link and access code to the instrument.

The second contact was established six days later, on Monday, April 5, 2010, following Dillman's (2007) guidance for increased response rate. Only industry partners who had not yet started the instrument were contacted (see Appendix E). The second contact served as a simple nudge to complete the instrument based on the importance of the study.

The third contact was made, Thursday, April 8, 2010, ten days after the initial e-letter and followed a similar format to the second contact (see Appendix F). The third contact was used as a reminder and encouraged a quick re-arrangement of priorities, as Dillman (2007) prescribes.

On day 20 of the research process, a fourth contact was made with anyone who had not started the on-line instrument. The tone of the fourth contact was changed to a more subtle and conversational tone to incorporate both contacts four and five of the Dillman (2007) survey process.

The remaining correspondence with the industry partners was carried out by internal tools in the Hosted SurveyTM software package. For those who had started the instrument but never finished it, a reminder message was generated by the program and it sent them a link to allow access back in at the point where they had left off. Once the participants completed the instrument, the program auto generated a completion confirmation and thank you note.

Data Analysis

Research questions one and two were created to assess the frequencies and percentages of the personal and company characteristics of the respondents. To address questions three, descriptive statistics were used to explore the frequencies, percentages, means, and standard deviations of the importance of the each of the learning objectives. For the purpose of establishing validity of the curriculum, a mean score of ($M = 3.5$) was established as the required cut-off to ensure individual learning objectives were valid. Research question four sought to assess the importance of the curriculum objectives by industry segment. Means scores and standard deviations were used to describe the data. Cohen's d was then utilized to compare the mean scores of the two industry segments (independent operations or corporate/franchised operations). Effect size and calculated and interpreted according to Thalheimer and Cook's (2003) (see table 4). Data were analyzed using Statistical Package for Social Sciences (SPSS) version 17.0 computer program for windows.

Table 2

Thalheimer and Cook's (2003) Descriptors for Describing the Relative Size of Cohen's d

Value of Cohen's d	Effect Size
> 1.45	Huge effect
> 1.10 and < 1.45	Very large effect
> 0.75 and < 1.10	Large effect
> 0.40 and < 0.75	Medium effect
> 0.15 and < 0.40	Small effect
> 0.00 and < 0.15	Negligible effect

CHAPTER IV

FINDINGS

Purpose of the Study

The purpose of this study was to assess if the new curriculum being implemented by the University of Missouri's Hotel and Restaurant Management (HRM) program will meet the needs of the industry for which it is preparing graduates. The study sought to provide insight on the learning objectives of the food and beverage curriculum regarding the level of importance of each objective, as identified by employers of the program's graduates.

Research Objectives

1. Describe the personal characteristics (age, sex, highest level of education, number of hours worked in a given week, years in the hospitality industry, current title) of employers of the University of Missouri's Hotel and Restaurant Management program graduates.
2. Describe the company characteristics (industry segment, annual sales volume, and number of employees) of the employers of the University of Missouri's Hotel and Restaurant Management program graduates.
3. Validate, through employers' perceptions, the importance of the learning objectives in the food and beverage curriculum.
4. Compare industry segments responses regarding their needs in the workforce.

Population

The target population consisted of food and beverage operations who have hired University of Missouri's Hotel and Restaurant Management program graduates during the last five years: May 2004 – May 2009 ($N = 86$).

The frame for the study was acquired from the College of Agriculture, Food, and Natural Resources' Career Services Office and cross-referenced with the industry relations data base in the HRM program administrative office. To account for potential frame error and ensure accuracy, the list was scrutinized for errors and omissions and purged of duplicates. Company names, point of contact names, and email addresses were reviewed to be certain information was correctly reported. Corrections were made as necessary prior to the start of data collection.

Upon initiation of the data collection process, it was determined that six of the companies were no longer in business. The six companies were removed from the target population as they are no longer functioning food and beverage operations. Removal of the six companies resulted in a new accessible population ($N = 80$). Forty-eight respondents completed the survey for a 60% response rate.

Research Question One

Research Question one sought to describe the personal characteristics (age, sex, highest level of education, number of hours worked in a given week, years in the hospitality industry, current title) of employers of the University of Missouri's Hotel and Restaurant Management program graduates. Thirty-four (72.3%) were male, 13 (27.7%) female. Table 3 shows one respondent (2.13%) was under 25 years of age. Fifteen (31.91%) were in the 25 to 30 age group, and 10 (21.28%) were in the 31 to 36 age

group. Almost 30% of the respondents indicated they were between the ages of 37-50 and seven (14.89%) were 51 years of age or older.

Table 3

Age Distribution of Respondents (n = 47)

Age	Frequency	Percent
18 – 24	1	2.13
25 – 30	15	31.91
31 – 36	10	21.28
37 – 42	7	14.89
43 – 50	7	14.89
51 – 56	4	8.51
57 or over	3	6.38
Total	47	100.00

At the time of completing the questionnaire, three (6.52%) respondents had not completed a degree beyond a high school education or the equivalent. Three respondents (6.52%) had completed a 2-year degree while Thirty-five (76.1%) respondents had completed at least a 4-year degree (see Table 4). Additionally, five (10.87%) had completed masters degrees.

Table 4

Distribution of Highest Level of Education Completed by Respondents (n = 46)

Level of Education	Frequency	Percent
High School/G.E.D.	3	6.52
2 Year Degree	3	6.52
4 Year Degree	35	76.09
Master Degree	5	10.87
Total	46	100.00

In the area of years in service, eighteen (37.5%) respondents had been employed in the Hospitality and/or Food & Beverage Industry for more than 20 years while 13

(27.1%) had been employed for 6-10 years (see Table 5). Additionally, twelve (25%) respondents shared that they had been in industry for 11-20 years.

Table 5

Distribution of Length of Employment in the Hospitality Industry (n = 48)

Length of Employment	Frequency	Percent
1-5 years	5	10.42
6-10 years	13	27.08
11-15 years	6	12.50
16-20 years	6	12.50
More than 20 years	18	37.50
Total	48	100.00

Six (12.77%) responded that their average work weeks were 40 hours or under (see Table 6). Eight (17.02%) stated they worked more than 40 hours, but do not exceed 50 hours in a given week. Twenty-three (48.9%) reported working 51-60 hours per week. The remainder of the group, ten (21.27%) reported their weeks averaged 61 hours or more.

Table 6

Distribution of the Number of Hours Worked on Average per Week (n = 47)

Avg. Hours per Week	Frequency	Percent
31-40 hours	6	12.77
41-50 hours	8	17.02
51-60 hours	23	48.94
61-70 hours	7	14.89
71 or more hours	3	6.38
Total	47	100.00

The forty-nine respondents represented a wide range of industry titles/positions. The responses in Table 7 represent groupings of self-reported, open-ended response for respondent's current job title. The two largest groups were general managers ($f = 8$; 16.33%) and owners/operators ($f = 7$; 14.29%). Several single titles were listed from positions such as President, District/Regional Manager, Services Director, and Vice President of Sales.

Table 7

Distribution of Current Title of Respondents (n = 49)

Title	Frequency	Percent
General Manger	8	16.33
Owner	7	14.29
(blank)	5	10.20
Assistant Manager	4	8.16
Director of Human Resources / Training	4	8.16
Director of Operations	3	6.12
Personnel Directors	3	6.12
Executive/Corporate Chef	2	4.08
Food & Beverage Managers*	2	4.08
Sales Manager	2	4.08
Vice President of Operations	2	4.08
District/Regional Manager	1	2.04
Executive Assistant	1	2.04
Line Cook	1	2.04
President	1	2.04
Service Director	1	2.04
Resort Guest Services Manager	1	2.04
Vice President of Sales	1	2.04
Total	49	100.00

Research Question 2

Research question two sought to describe the company characteristics (industry segment, annual sales volume, and number of employees) of the employers of the University of Missouri's Hotel and Restaurant Management program graduates. Thirty-eight people answered the question "How many employees do you currently have under your supervision?" The responses ranged from zero to 700. The median number of employees was 36.. Fifteen of 48 respondents (31.3%) indicated "Independent Restaurant Operation" as their industry sector; eleven (22.9%) indicated "Corporate/Franchised Restaurant Operation" (see Table 8).

Table 8

Distribution of Industry Sector of Service (n = 48)

Industry Sector	Frequency	Percent
Independent Restaurant Operation	15	31.25
Corporate/Franchised Restaurant Operation	11	22.92
Hotel Food and Beverage	7	14.58
Food/Equipment Sales	5	10.42
Club Operations	5	10.42
Food Service Training & Education	3	6.25
Conference and Event Planning	2	4.17
Total	48	100.00

Thirteen of 44 respondents (29.5%) reported employer annual food and beverage sales volumes greater than \$5,000,000, while 9 (20.5%) reported \$500,000 - \$999,000 (see Table 9).

Table 9

Distribution of Employer's Annual Food and Beverage Sales Volume (n = 44)

Sales Volume	Frequency	Percent
< \$499,000	4	9.09
\$500,000 - \$999,000	9	20.45
\$1,000,000 - \$1,999,999	7	15.91
\$2,000,000 - \$2,999,999	2	4.55
\$3,000,000 - \$3,999,999	3	6.82
\$4,000,000 - \$4,999,999	6	13.64
> \$ 5,000,000	13	29.55
Total	44	100.00

Research Question 3

Research question three sought to validate, through employers' perceptions, the importance of the learning objectives in the food and beverage curriculum. In the curriculum category of food service sanitation, none of the learning objectives were found to have a mean importance below at 4.00 (see Table 10). The objective with the most important rating was "Demonstrate an understanding of the dangers of food borne illness, how to prevent it, and the keys to food safety" ($M = 4.96$). Adversely, explaining risk management and creating pest management programs have little importance. One (2.08%) respondent stated Interpreting a HACCP plan was not important.

Table 10

Frequencies, Percents, Means and Standard Deviations on Employer's Perceptions of the Importance of Learning Objectives in Food

Service Sanitation (n = 48)

Learning Objective	Level of Importance										M	SD
	Not		Little		Somewhat		Important		Very			
	f	%	f	%	f	%	f	%	f	%		
Demonstrate an understanding of the dangers of food borne illness, how to prevent it, and the keys to food safety	0	0.00	0	0.00	0	0.00	2	4.17	46	95.83	4.96	0.20
Discuss where contamination starts, the components for good personal hygiene, and how every employee can be a safe food handler	0	0.00	0	0.00	0	0.00	5	10.42	43	89.58	4.90	0.31
Display a working knowledge of good personal hygiene, how to prevent cross-contamination, and how to utilize time and temperature control effectively	0	0.00	0	0.00	0	0.00	6	12.50	42	87.50	4.88	0.33
Analyze and implement active management controls for safe product receiving, food storage, preparation, and service	0	0.00	0	0.00	0	0.00	11	22.92	37	77.08	4.77	0.42
Describe all the aspects of cleaning and sanitation in a practical, applicable manner	0	0.00	0	0.00	1	2.08	13	27.08	34	70.83	4.69	0.51
Identify ways to best keep employee training ongoing to keep food safety working in every operation	0	0.00	0	0.00	3	6.25	16	33.3	29	60.42	4.54	0.62
Explain risk management and ethics	0	0.00	1	2.08	5	10.42	20	41.67	22	45.83	4.31	0.75
Interpret a HACCP plan	1	2.08	0	0.00	10	20.83	19	39.58	18	37.50	4.10	0.88
Create a pest management program and explain how to keep pests out of the operation	0	0.00	2	4.17	11	22.92	20	41.67	15	31.25	4.00	0.85

Table 11 shows the lowest rated objectives in the culinary fundamentals curriculum were “Identify and create stocks, sauces, and soups” ($M = 3.81$) and “recognize the principles and complete the preparation of salads, dressings, and garde manger products” ($M = 3.78$). The objective with most important rating was “Apply an understanding of the principles of basic hot and cold food preparation.” ($M = 4.50$). In addition to the high and low items, all eight of the objectives in the culinary curriculum had ratings of somewhat important or lower.

Table 11

Frequencies, Percents, Means, and Standard Deviations on Employer's Perceptions of the Importance of Learning Objectives in Culinary Fundamentals (n = 48)

Learning Objective	Level of Importance										<i>M</i>	<i>SD</i>
	Not		Little		Somewhat		Important		Very			
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Apply an understanding of the principles of basic hot and cold food preparation	0	0.00	1	2.08	3	6.25	15	31.25	29	60.42	4.50	0.71
Identify kitchen equipment and be able to use them in production	0	0.00	1	2.08	10	20.83	12	25.00	25	52.08	4.27	0.87
Acquire and exhibit the basic methods of food cookery	0	0.00	1	2.08	5	10.42	22	45.83	20	41.67	4.27	0.74
Describe the importance of purchasing and standards involved based on the different products	0	0.00	0	0.00	10	20.83	23	47.92	15	31.25	4.10	0.72
Identify, classify, and prepare meats, poultry, game, fish, shellfish, vegetables, fruits, pastas, grains, and starches	0	0.00	2	4.17	9	18.75	20	41.67	17	35.42	4.08	0.85
Demonstrate cutlery techniques and improved motor skills	1	2.08	0	0.00	11	22.92	21	43.75	15	31.25	4.02	0.86
Identify and create sauces, stocks, and soups	1	2.08	3	6.25	15	31.25	14	29.17	15	31.25	3.81	1.02
Recognize the principles and complete the preparation of salads, dressings, and garde manger products	0	0.00	4	8.33	13	27.08	21	43.75	10	20.83	3.77	0.88

Note: Scale: 1.00-1.50 = Not Important, 1.51 – 2.50 = Minor Importance, 2.51 – 3.50 = Somewhat Important, 3.51 – 4.50 = Moderate

Importance, 4.51 – 5.00 = Very Important.

Respondents isolated menu-related learning objectives to be the least important by ranking “Plan a menu based on sound menu planning principles” ($M = 4.44$) and “Recognize the use of menus as a managerial tool” ($M = 4.27$) as the two lowest items (see Table 12). Both scoring a ($M = 4.83$), “Explain the value of cost controls” and “perform labor scheduling and calculate labor cost” ranked as the most important elements in the operations and controls curriculum. In the same curriculum where the most important items were found, eleven items were found to be some what important and two items were identified as having little importance.

Table 12

Frequencies, Percents, Means, and Standard Deviations on Employer's Perceptions of the Importance of Learning Objectives in Operations and Controls (n = 48)

Learning Objective	Level of Importance										M	SD
	Not		Little		Somewhat		Important		Very			
	f	%	f	%	f	%	f	%	f	%		
Explain the value of cost controls	0	0.00	0	0.00	0	0.00	8	16.67	40	83.33	4.83	0.38
Perform labor scheduling and calculate labor cost	0	0.00	0	0.00	1	2.08	6	12.50	41	85.42	4.83	0.43
Calculate and analyze cost ratios, standard, and actual cost	0	0.00	0	0.00	1	2.08	9	18.75	38	79.17	4.77	0.47
Calculate daily or monthly food costs	0	0.00	0	0.00	2	4.17	11	22.92	35	72.92	4.69	0.55
Define critical elements of service management	0	0.00	0	0.00	2	4.17	11	22.92	35	72.92	4.69	0.55
Determine standard recipe and portion costs	0	0.00	0	0.00	2	4.17	14	29.17	32	66.67	4.63	0.57
Recognize control deficiencies and institute corrective actions throughout the food manufacturing cycles	0	0.00	1	2.08	3	6.25	15	31.25	29	60.42	4.50	0.71
Apply yield concepts in calculating food order and production quantity	0	0.00	0	0.00	4	8.33	16	33.33	28	58.33	4.50	0.65
Analyze menu sales mix and set menu price	0	0.00	0	0.00	7	14.58	12	25.00	29	60.42	4.46	0.74
Plan a menu based on sound menu planning principles	0	0.00	1	2.08	7	14.58	10	20.83	30	62.50	4.44	0.82
Describe the importance of -purchasing standards involved based on different product selection	0	0.00	0	0.00	9	18.75	15	31.25	24	50.00	4.31	0.78
Recognize the use of menus as a managerial tool	0	0.00	0	0.00	12	25.00	11	22.92	25	52.08	4.27	0.84

In the area of beverage management, basic skills of the bar tender were deemed to be the least important (see Table 13). The two lowest ranking objectives were “Have an understanding of the changing drinking patterns of the U.S. public” ($M = 3.50$) and “Demonstrate the basics of mixology” ($M = 3.81$). “Interpret federal, state, & local laws concerning alcohol service” was deemed the most important item in the curriculum ($M = 4.71$). Five items were ranked to be not important and additional five were recorded as being some what important.

Table 13

Frequencies, Percents, Means and Standard Deviations on Employer's Perceptions of the Importance of Learning Objectives in Beverage Management (n = 48)

Learning Objective	Level of Importance										M	SD
	Not		Little		Somewhat		Important		Very			
	f	%	f	%	f	%	f	%	f	%		
Interpret federal, state, & local laws concerning alcohol service	1	2.08	0	0.00	2	4.17	6	12.50	39	81.25	4.71	0.74
Review the proper sanitary practices to be used in beverage service	0	0.00	0	0.00	3	6.25	15	31.25	30	62.50	4.56	0.62
Summarize criteria used in selecting employees	0	0.00	0	0.00	6	12.50	15	31.25	27	56.25	4.44	0.71
Recall resources that are available (liquor control, health department, local law enforcement, etc.) to develop a safe, customer friendly, profitable beverage operation	0	0.00	1	2.08	4	8.33	16	33.33	27	56.25	4.44	0.74
Describe the importance of standard recipes & inventory management	0	0.00	0	0.00	7	14.58	15	31.25	26	54.17	4.40	0.74
Apply techniques of monitoring consumption and server intervention	1	2.08	0	0.00	7	14.58	12	25.00	28	58.33	4.38	0.89
Explain the major steps in serving alcoholic/non-alcoholic beverages, pouring beer, and opening and serving a bottle of wine	1	2.08	0	0.00	11	22.92	12	25.00	24	50.00	4.21	0.94
Identify the processes involved in creating and maintaining a profitable bar business	0	0.00	1	2.08	9	18.75	19	39.58	19	39.58	4.17	0.81
Identify proper pairings of food and beverages	2	4.17	3	6.25	9	18.75	18	37.50	16	33.33	3.90	1.08
Demonstrate the basics of mixology	1	2.08	2	4.17	16	33.33	15	31.25	14	29.17	3.81	0.98
Have an understanding of the drinking patterns of the U.S. public	0	0.00	5	10.42	23	47.92	11	22.92	9	18.75	3.50	0.92

Finally, in Table 14, respondents indicated the least important of the objectives was “Safely and properly use commercial production equipment” ($M = 4.50$). The top three objectives were separated by only hundredths of a point: “Exhibit time management skills” ($M = 4.77$), “Work independently with efficient work habits” ($M = 4.73$) and “Work through difficult situations and customer concerns or issues” ($M = 4.75$). Additionally, ten items were recorded to be somewhat important by one to six of the respondents.

Table 14

Frequencies, Percents, Means and Standard Deviations on Employer's Perceptions of the Importance of Learning Objectives in Commercial Production Management (n = 48)

Learning Objective	Level of Importance										<i>M</i>	<i>SD</i>
	Not		Little		Somewhat		Important		Very			
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Implement proper sanitation procedures in handling of foods and servicewares	0	0.00	0	0.00	0	0.00	9	18.75	39	81.25	4.81	0.39
Exhibit time management skills	0	0.00	0	0.00	0	0.00	11	22.92	37	77.08	4.77	0.42
Work through difficult situations and customer concerns or issues	0	0.00	0	0.00	1	2.08	10	20.83	37	77.08	4.75	0.48
Work independently with efficient work habits	0	0.00	0	0.00	0	0.00	13	27.08	35	72.92	4.73	0.45
Plan and manage basic necessary details of a food service operation including staffing, marketing, inventory management, menu and recipe development, food production, bar and beverage operations, and reservation systems	0	0.00	0	0.00	2	4.17	11	22.92	35	72.92	4.69	0.55
Setup and serve food efficiently and fashionably with emphasis on presentation, portion control, temperatures, food consistency, and efficient systems for producing items in quantity	0	0.00	0	0.00	2	4.17	12	25.00	34	70.83	4.67	0.56
Organize the efforts of front and back of the house staff for a smooth operation	0	0.00	0	0.00	1	2.08	14	29.17	33	68.75	4.67	0.52

Table 14 (continued)

Chapter 14 Continued: Learning Objective	Level of Importance										<i>M</i>	<i>SD</i>
	Not		Little		Somewhat		Important		Very			
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Think critically and solve complex problems	0	0.00	1	2.08	1	2.08	11	22.92	35	72.92	4.67	0.63
Control cost associated with the meal in order to stay within budgetary guidelines	0	0.00	0	0.00	1	2.08	15	31.25	32	66.67	4.65	0.53
Basic management principles of operating a food service facility	0	0.00	0	0.00	2	4.17	13	27.08	33	68.75	4.65	0.56
Utilize appropriate production planning and scheduling techniques	0	0.00	0	0.00	2	4.17	14	29.17	32	66.67	4.63	0.57
Plan and manage basic necessary details of a food service operation including staffing, marketing, inventory management, menu and recipe development, food production, bar and beverage operations, and reservation systems	0	0.00	0	0.00	2	4.17	11	22.92	35	72.92	4.69	0.55
Train staff members for production and service	0	0.00	0	0.00	2	4.17	17	35.42	29	60.42	4.56	0.58
Safely and properly use commercial production equipment	0	0.00	0	0.00	6	12.50	12	25.00	30	62.50	4.50	0.71
Perform task in a service operation offering table and bar service	0	0.00	0	0.00	5	10.42	21	43.75	22	45.83	4.35	0.67

Note: Scale: 1.00-1.50 = Not Important, 1.51 – 2.50 = Minor Importance, 2.51 – 3.50 = Somewhat Important, 3.51 – 4.50 = Moderate

Importance, 4.51 – 5.00 = Very Important.

Research Question 4

Research question four sought to compare industry segments responses regarding their needs in the workforce. The segments were collapsed into two groups independent operations and corporate/franchised operations and means and standard deviations were established for each which are provided in Tables 15-19. Cohen d was then utilized to compare the means for the two segments in each of the five areas, with effect size reported in their respected tables.

Eight items exhibited medium effect sizes, including “discuss where contamination starts, the components for good personal hygiene, and how every employee can be a safe food handler” (Cohen’s $d = .49$), “perform labor scheduling and calculate labor cost” (Cohen’s $d = .48$), “have an understanding of the changing drinking patterns of the U.S. public” (Cohen’s $d = .51$), “apply techniques of monitoring alcohol consumption and server intervention” (Cohen’s $d = .56$), “safely and properly use commercial production equipment” (Cohen’s $d = -.42$), “think critically and solve complex problems” (Cohen’s $d = -.42$), “work through difficult situations and customer concerns or issues” (Cohen’s $d = -.61$), and “setup and serve food efficiently and fashionably with emphasis on presentation, portion control, temperatures, food consistency, and efficient systems for producing items in quantity” (Cohen’s $d = -.47$). Twenty-five items had small effect sizes, ranging from .16 to .40. A comparison of the means by sector for the remaining 21 items resulted in negligible effect sizes.

Table 15

Employer's Perceptions of the Importance of Learning Objectives in Food Service

Sanitation (n = 48)

	Sector				Cohen's <i>d</i>
	Corporate/ Franchised Operations N=21		Independent Operations N=27		
	Mean	SD	Mean	SD	
Discuss where contamination starts, the components for good personal hygiene, and how every employee can be a safe food handler.	4.81	0.40	4.96	0.19	0.49 ^c
Describe all the aspects of cleaning and sanitation in a practical, applicable manner.	4.57	0.60	4.78	0.42	0.40 ^b
Create a pest management program and explain how to keep pests out of the operation.	3.81	0.98	4.15	0.72	0.39 ^b
Display a working knowledge of good personal hygiene, how to prevent cross-contamination, and how to utilize time and temperature control effectively.	4.81	0.40	4.93	0.27	0.34 ^b
Identify ways to best keep employee training ongoing to keep food safety working in every operation.	4.43	0.68	4.63	0.56	0.32 ^b
Interpret a HACCP plan.	3.95	1.02	4.22	0.75	0.30 ^b
Explain risk management and ethics.	4.19	0.75	4.41	0.75	0.29 ^b
Demonstrate an understanding of the dangers of foodborne illness, how to prevent it, and the keys to food safety.	4.95	0.22	4.96	0.19	0.05
Analyze and implement active management controls for safe product receiving, food storage, preparation, and service.	4.76	0.44	4.78	0.42	0.04

Note: Scale: 1.00-1.50 = Not Important, 1.51 – 2.50 = Minor Importance, 2.51 – 3.50 =

Somewhat Important, 3.51 – 4.50 = Moderate Importance, 4.51 – 5.00 = Very Important.

Thalheimer & Cook's (2003) descriptors for describing relative size of Cohen's *d*:

^b = small, ^c = medium.

Table 16

Employer's Perceptions of the Importance of Learning Objectives in Culinary

Fundamentals (n = 48)

	Sector				Cohen's <i>d</i>
	Corporate/ Franchised Operations N=21		Independent Operations N=27		
	Mean	SD	Mean	SD	
Recognize the principles and complete the preparation of salads, dressings, and garde manger products.	3.90	1.00	3.67	0.78	-0.27 ^b
Describe the importance of purchasing and standards involved based on the different products.	4.00	0.71	4.19	0.74	0.26 ^b
Acquire and exhibit the basic methods of food cookery.	4.33	0.86	4.22	0.64	-0.15
Demonstrate cutlery techniques and improved motor skills.	3.95	1.02	4.07	0.73	0.14
Identify kitchen equipment and be able to use them in production.	4.33	0.97	4.22	0.80	-0.13
Apply an understanding of the principles of basic hot and cold food preparation.	4.52	0.81	4.48	0.64	-0.06
Identify, classify, and prepare meats, poultry, game, fish, shellfish, vegetables, fruits, pastas, grains, and starches.	4.10	1.00	4.07	0.73	-0.02
Identify and create sauces, stocks, and soups.	3.81	1.21	3.81	0.88	0.01

Note: Scale: 1.00-1.50 = Not Important, 1.51 – 2.50 = Minor Importance, 2.51 – 3.50 = Somewhat Important, 3.51 – 4.50 = Moderate Importance, 4.51 – 5.00 = Very Important.

Thalheimer & Cook's (2003) descriptors for describing relative size of Cohen's *d*:

^b = small, ^c = medium.

Table 17

*Employer's Perceptions of the Importance of Learning Objectives in Operations and**Controls (n = 48)*

	Sector				Cohen's <i>d</i>
	Corporate/ Franchised Operations N=21		Independent Operations N=27		
	Mean	SD	Mean	SD	
Perform labor scheduling and calculate labor cost.	4.71	0.56	4.93	0.27	0.48 ^c
Define critical elements of service management.	4.81	0.51	4.59	0.57	-0.40 ^b
Describe the importance of purchasing standards involved based on different product selection.	4.14	0.91	4.44	0.64	0.38 ^b
Recognize the use of menus as a managerial tool.	4.14	0.96	4.37	0.74	0.26 ^b
Calculate daily or monthly food costs.	4.62	0.59	4.74	0.53	0.22 ^b
Calculate and analyze cost ratios, standard, and actual cost.	4.71	0.46	4.81	0.48	0.21 ^b
Analyze menu sales mix and set menu price.	4.38	0.86	4.52	0.64	0.18 ^b
Recognize control deficiencies and institute corrective actions throughout the food manufacturing cycles.	4.43	0.81	4.56	0.64	0.17 ^b
Plan a menu based on sound menu planning principles.	4.38	0.97	4.48	0.70	0.12
Explain the value of cost controls.	4.81	0.40	4.85	0.36	0.11
Apply yield concepts in calculating food order and production quantity.	4.48	0.75	4.52	0.58	0.06
Determine standard recipe and portion costs.	4.62	0.67	4.63	0.49	0.02

Note: Scale: 1.00-1.50 = Not Important, 1.51 – 2.50 = Minor Importance, 2.51 – 3.50 =

Somewhat Important, 3.51 – 4.50 = Moderate Importance, 4.51 – 5.00 = Very Important.

Thalheimer & Cook's (2003) descriptors for describing relative size of Cohen's *d*:

^b = small, ^c = medium.

Table 18

Employer's Perceptions of the Importance of Learning Objectives in Beverage

Management (n = 48)

	Sector				Cohen's <i>d</i>
	Corporate/ Franchised Operations N=21		Independent Operations N=27		
	Mean	SD	Mean	SD	
Apply techniques of monitoring alcohol consumption and server intervention.	4.10	1.04	4.59	0.69	0.56 ^c
Have an understanding of the changing drinking patterns of the U.S. public.	3.24	1.00	3.70	0.82	0.51 ^c
Review the proper sanitary practices to be used in beverage service.	4.43	0.68	4.67	0.55	0.39 ^b
Recall resources that are available (liquor control, health department, local law enforcement, etc.) to develop a safe, customer friendly, profitable beverage operation.	4.29	0.85	4.56	0.64	0.36 ^b
Explain the major steps in serving alcoholic/non-alcoholic beverages, pouring beer, and opening and serving a bottle of wine.	4.10	1.09	4.30	0.82	0.21 ^b
Describe the importance of standard recipes and inventory management.	4.48	0.75	4.33	0.73	-0.19 ^b
Identify the processes involved in creating and maintaining a profitable bar business.	4.10	0.89	4.22	0.75	0.15
Identify proper pairings of food and beverages.	3.81	1.17	3.96	1.02	0.14
Interpret federal, state, and local laws concerning alcohol service.	4.67	0.91	4.74	0.59	0.10
Summarize criteria used in selecting employees.	4.48	0.75	4.41	0.69	-0.10
Demonstrate the basics of mixology.	3.86	1.06	3.78	0.93	-0.08

Note: Scale: 1.00-1.50 = Not Important, 1.51 – 2.50 = Minor Importance, 2.51 – 3.50 =

Somewhat Important, 3.51 – 4.50 = Moderate Importance, 4.51 – 5.00 = Very Important.

Thalheimer & Cook's (2003) descriptors for describing relative size of Cohen's *d*:

^b = small, ^c = medium.

Table 19

*Employer's Perceptions of the Importance of Learning Objectives in Commercial**Production Management (n =48)*

	Sector				Cohen's <i>d</i>
	Corporate/ Franchised Operations N=21		Independent Operations N=27		
	Mean	SD	Mean	SD	
Work through difficult situations and customer concerns or issues.	4.90	0.30	4.63	0.56	-0.61 ^c
Setup and serve food efficiently and fashionably with emphasis on presentation, portion control, temperatures, food consistency, and efficient systems for producing items in quantity.	4.81	0.51	4.56	0.58	-0.47 ^c
Safely and properly use commercial production equipment.	4.67	0.66	4.37	0.74	-0.42 ^c
Think critically and solve complex problems.	4.81	0.40	4.56	0.75	-0.42 ^c
Train staff members for production and service.	4.67	0.48	4.48	0.64	-0.33 ^b
Utilize appropriate production planning and scheduling techniques.	4.71	0.46	4.56	0.64	-0.28 ^b
Plan and manage basic necessary details of a food service operation including staffing, marketing, inventory management, menu and recipe development, food production, bar and beverage operations, and reservation systems.	4.76	0.44	4.63	0.63	-0.24 ^b
Control cost associated with the meal in order to stay within budgetary guidelines.	4.71	0.46	4.59	0.57	-0.23 ^b
Organize the efforts of front and back of the house staff for a smooth operation.	4.62	0.59	4.70	0.47	0.16 ^b

Table 19 (continued)

	Sector				Cohen's <i>d</i>
	Corporate/ Franchised Operations N=21		Independent Operations N=27		
	Mean	SD	Mean	SD	
Work independently with efficient work habits.	4.71	0.46	4.74	0.45	0.06
Basic management principles of operating a food service facility.	4.67	0.58	4.63	0.56	-0.06
Perform task in a service operation offering table and bar service.	4.33	0.73	4.37	0.63	0.05
Implement proper sanitation procedures in handling of foods and servicewares.	4.81	0.40	4.81	0.40	0.01

Note: Scale: 1.00-1.50 = Not Important, 1.51 – 2.50 = Minor Importance, 2.51 – 3.50 =

Somewhat Important, 3.51 – 4.50 = Moderate Importance, 4.51 – 5.00 = Very Important.

Thalheimer & Cook's (2003) descriptors for describing relative size of Cohen's *d*:

^b = small, ^c = medium.

CHAPTER V
SUMMARY, CONCLUSIONS, IMPLICATIONS,
AND RECOMMENDATIONS

Purpose of the Study

The purpose of this study was to assess if the new curriculum being implemented by the University of Missouri's Hotel and Restaurant Management (HRM) program will meet the needs of the industry for which it is preparing graduates. The study sought to provide insight on the learning objectives of the food and beverage curriculum regarding the level of importance of each objective, as identified by employers of the program's graduates.

Research Objectives

1. Describe the personal characteristics (age, sex, highest level of education, number of hours worked 1n a given week, years in the hospitality industry, current title) of employers of the University of Missouri's Hotel and Restaurant Management program graduates.
2. Describe the company characteristics (industry segment, annual sales volume, and number of employees) of the employers of the University of Missouri's Hotel and Restaurant Management program graduates.
3. Validate, through employers' perceptions, the importance of the learning objectives in the food and beverage curriculum.
4. Compare industry segments responses regarding their needs in the workforce.

Limitations of the Study

The study used a population of industry partners who hired University of Missouri Hotel & Restaurant Management graduates during the years 2004-2009. Therefore, no generalizing should be done to the general population based on the results of this study.

Research Design

This study utilized descriptive-correlational research methods to address questions regarding industries perspective of the relevance of the food and beverage curriculum at the University of Missouri's Hotel and Restaurant Management program. Ary, Jacobs, and Razavieh (2006), describe correlational research as "nonexperimental research that investigates whether there is an association between one or more variables" (p. 376). These studies employ questionnaires and interviews to gather information from those being studied. This study utilized an online instrument to gather information regarding industries needs regarding the University of Missouri's food and beverage graduates.

In this study there was one dependent variable – terminal objectives of the food and beverage curriculum. Additionally, there were several independent variables of interest. Independent variables include: age, gender, highest level of education attained, years in industry, number of hours worked per week, number of employees, and industry service segment.

Population

The target population consisted of food and beverage operations who have hired University of Missouri's Hotel and Restaurant Management program graduates during the last five years: May 2004 – May 2009 ($N = 86$).

The frame for the study was acquired from the College of Agriculture, Food, and Natural Resources' Career Services Center and cross-referenced with the industry relations data base in the HRM program administrative office. To account for potential frame error and ensure accuracy, the list was scrutinized for errors and omissions and purged of duplicates. Company names, point of contact names, and email addresses were reviewed to be certain information was correctly reported. Corrections were made as necessary prior to the start of data collection.

Upon initiation of the data collection process, the researcher established six of the companies were no longer in business. These six subjects were removed from the population and considered to be frame error, as they are no longer functioning food and beverage operations resulting in a usable population ($N = 80$).

Instrumentation

A single survey was utilized for the collection of the data. An online instrument, the University of Missouri's Hotel and Restaurant Management program curriculum validation instrument (Appendix A), was distributed via email to industry partners to collect quantitative information relating to curriculum needs of a program preparing future food and beverage managers. An online instrument was used for both ease in collection of information from subjects all across the United States and due to the electronic form of contact information provided for each of the industry partners.

The University of Missouri's Hotel and Restaurant Management program curriculum validation instrument was created and distributed using Hosted SurveyTM, a web-based survey software application. Hosted SurveyTM was selected based on previous

MU successes with the application, academic pricing, and its wide-ranging design and layout options.

The University of Missouri's Hotel and Restaurant Management program curriculum validation instrument consisted of two sections. Section I utilized a modified needs assessment format to identify the level of importance of each of the terminal objects in the new food and beverage curriculum. A total of 55 items were included in this section, which was divided into six pages in the online format to aid in usability.

The items were developed after a complete review of all academic courses in the University of Missouri's Hotel and Restaurant Management program curriculum. The instrument items were identified and then placed in one of six competency areas: Food Service Sanitation, Culinary Fundamentals, Cost Accounting Controls, Operational Service Management, Beverage Management, and Commercial Food Production/Management.

Industry partners were asked to identify the perceived level of importance for each of the 55 objectives from the courses specific to the University of Missouri's Hotel and Restaurant Management program's food and beverage curriculum. The importance was rated using a five-point response scale. The response scale used was:

- 1-Not Important
- 2-Minor importance
- 3-Somewhat important
- 4-Moderate importance
- 5-Very important

Section II of the questionnaire consisted of nine personal and company characteristic questions. These questions allowed the responding industry partner to expand upon their position of employment, length of time in industry, number of hours worked per week, academic level, sector of service, and number of employees under their supervision as well as demographic information related to age and gender.

Validity and Reliability

Ary et al. (2006) described validity as the ability of a questionnaire to measure what it purports to measure. For the purpose of this study, two types of validity were examined: face and content. Face validity is simply the ability to ensure the instrument appears valid for the intended purpose. Gall, Gall, & Borg (2003) noted content validity is used to assess whether or not the items in the instrument represents what the objectives dictate. To ensure the instrument was correctly constructed, a panel of experts was established to ensure face and content validity. The panel ($N = 4$) consisting of University of Missouri faculty (Appendix B) made suggestions and modifications that were then made to the instrument.

The reliability of the instrument was also analyzed using a pilot group for test-retest. The pilot group completed a paper version of the on-line survey. Each participant responded to Section I of the instrument by rating their perceived importance of the 55 course objectives. Two weeks later the same group received a second paper version of the on-line instrument. Coefficients of stability were calculated for each of the 55 items on the instrument using the pilot test data (see Appendix D). With intent to find the most reliable measure of internal consistency and reliability, correlations coefficients were employed. The resulting coefficients ranged from .70 to .96.

Data Collection

As directed by Dillman's (2007) updates, a modified concept of *Tailored Design Method* was utilized to guide the data collection process. Typically, Dillman's design is used for mail-based instruments and includes five contacts with participants: a) a pre-notice announcement; b) a second contact which includes the instrument; c) a follow-up reminder/ thank you post card; d) a replacement instrument; and, e) a final contact which includes invoking any special procedures. For the purpose of this project the five contacts were modified to allow for web-based execution of the survey (2007).

Instead of a pre-notice email, the first contact made to the industry partners was a personalized e-letter (Appendix F) explaining the purpose of the study and the process for completing the instrument. The e-letter also addressed Institutional Review Board related issues of compliance, voluntary participation, and who the participant should contact with questions. The e-mail was co-signed by Dr. James Groves, Department Chair for the HRM program. This first contact was established on March 30, 2010. Also contained in the e-letter was the web link and access code to the instrument.

After six days, nineteen (23.75%) industry partners had responded to our request to participate in the study. We established our second contact, on Monday, April 5, 2010, following Dillman's (2007) guidance for increased response rate. We only contacted those industry partners who had not yet started the instrument. The second contact served as a simple nudge to complete the instrument based on the importance of the study and took our response rate from 23.75% to 32.5%.

The third contact was made, Thursday, April 8, 2010, ten days after the initial e-letter and followed a similar format to the second contact (see Appendix G). The third

contact was used as a reminder and encouraged a quick re-arrangement of priorities, as Dillman (2007) prescribes. The request gave a 48 hour window for the instrument to be completed during which time our number of responses jumped to 43 (53.75%).

On day thirteen, personal phone calls were made to industry partners to personally request their participation. Additionally, a email was sent to participants who had started but not yet completed the instrument. These two forms of contact served as our fourth contact and used a more subtle and conversational tone to incorporate both contacts four and five of the Dillman (2007) survey process. These request help push our responses to forty-eight (60%). Based on the narrow window for analysis of the data, the instrument was deactivated and pulled from the web on the fifteenth day.

Data Analysis

Research questions one and two were created to assess the frequencies and percentages of the personal and company characteristics of the respondents. To address questions three, descriptive statistics were used to explore the frequencies, percentages, means, and standard deviations of the importance of the each of the learning objectives. For the purpose of establishing validity of the curriculum, a mean score of ($M = 3.5$) was established as the required cut-off to ensure individual learning objectives were valid. Research question four sought to assess the importance of the curriculum objectives by industry segment. Means scores and standard deviations were used to describe the data. Cohen's d was then utilized to compare the mean scores of the two industry segments (independent operations/corporate/franchised operations). Data were analyzed using Statistical Package for Social Sciences (SPSS) version 17.0 computer program for windows.

Summary of the Findings

Research Question One - Personal Characteristics of Respondents

Respondents participating in the study consisted of 34 (72.30%) males and 13 (27.70%) females. Twenty-five (53.19%) respondents were between the ages of 25 to 36. At the time of taking the survey, 35 (76.09) subjects had completed a 4-year degree and 93.48 percent had completed a post-secondary education. Eighteen (37.58%) people had been employed in the Hospitality and/or Food & Beverage Industry for one to ten years with the same number ($f = 18$; 37.50%) working more than 20 years. Only six (12.77%) reported working a 40 hour workweek. Thirty-three (70.21%) reported working 51 hours or more per week. When looking at respondents current titles, the two largest groups were general managers ($f = 8$; 16.35%) and owners/operators ($f = 7$; 14.29%). Several positions were listed once including President, District/Regional Manager, Services Director, and Vice President of Sales.

Research Question Two – Company Characteristics of Respondents

Thirty-eight people answered the question “How many employees do you currently have under your supervision?” The minimum response was 0, and the maximum response was 700. The mean number of employees was 83.20($SD = 152.9$). Fifteen of 48 respondents (31.25%) indicated “Independent Restaurant Operation” as their industry sector; 11 (22.92%) indicated “Corporate/Franchised Restaurant Operation.” Thirteen of 44 respondents (29.54%) reported employer annual food and beverage sales volumes greater than \$5,000,000 while 9 (20.45%) reported sales ranging from \$500,000 to \$999,000.

Research Question Three – The Importance of Learning Objectives

In each of the curriculum categories, mean scores indicated that all of the curriculum objectives were important. The mean scores indicate 50 (91%) of the objectives are moderately important or higher with only five (9%) having a mean below a 4.0 indicating they are at least still somewhat important. The open-ended question at the end of each section highlighted areas such as proper sanitation, leadership, teamwork, and strongly emphasized the importance in cost controls.

Research Question Four – A Comparison of Industry Segments Responses Regarding their Needs in the Workforce.

The data were compiled in tables expressing the mean and standard deviation for each of the 55 objectives by sector of service. Although differences did exist, there were no patterns created to establish relationships based upon service segment. The standard deviation with the segments in many cases was ($SD = 0.00$) indicating all respondents within the industry segments agreed on the rating of the curriculum item.

Conclusions and Implications

Research Question One- Personal Characteristics of Respondents

The respondents in the study consisted of 40 (86.96%) who had a bachelors or masters degree. Additionally 93.45 percent of the respondents had a post-secondary degree. Thirty-three (70.21%) reported working 51 hours or more per week while titles ranged from chef to president. It can be concluded that graduates from the University of Missouri's Hotel and Restaurant Management program are going into industry to work for educated, highly driven, and dedicated supervisors. One must still wonder about the subject who didn't respond. As the supervisor of future graduates, one would value the outcome of the research and the implementation of new curriculum. Did they not respond

because they are working too many hours? Did they not respond because they don't have a personal connection to the University of Missouri?

Research Question Two – Company Characteristics of Respondents

Respondents' mean number of employees supervised was 83.21 ($SD = 152.9$) indicating a range of employees under the respondents supervision from zero to 700. Fifteen of 48 respondents (31.33%) indicated "Independent Restaurant Operation" as their industry sector; 11 (22.92%) indicated "Corporate/Franchised Restaurant Operation." Thirteen of 44 respondents (29.50%) reported employer annual food and beverage sales volumes greater than \$5,000,000, while nine (20.545) reported \$500,000 - \$999,000. It can be implied that less than a third of the graduates will enter the work force to work for an independent restaurant operation. It can also be implied that 50 percent of the graduates will be employed by a company with a sales volume of three million or more per year. Can this conclude more emphasis needs to be placed on working with employees, training, human resources, teamwork, and leadership?

Research Question Three – The Importance of Learning Objectives

The mean responses for ninety-one percent of the learning objectives shows a moderate or higher importance to what graduates should know and be able to do upon graduation. The additional nine percent still showed somewhat important or higher which implies that only one to two respondents didn't agree with the concensus on the level of importance. Using the mean score cut-off of ($M = 3.5$), it can be concluded the new food and beverage curriculum is valid and in line with the needs of industry. Based on the responses to the open-ended questions, should improvements be made or additional emphasis placed on areas within the curriculum? The two highest ranking objectives

were both labor and cost control related. Could more emphasis be placed on this in existing courses? Should a course focusing strictly on labor along with food and beverage cost controls be put into the curriculum?

Research Question Four – A Comparison of Industry Segments Responses Regarding their Needs in the Workforce.

The analysis of data for question four shows little differences between the two industry segments. However, with standard deviations of zero for many of the responses, industry is in agreement on the level of importance of the objectives. For example it does not matter if you are employed by an independent restaurateur or by a university's campus dining program, the ability to perform scheduling and labor costing is Very Important (5). Not only is this objective important to some respondents, but every respondent in both of these segments validated it as being very important. Perhaps respondents in different settings that do not feature beverage service do not see the same level of importance for items in the beverage curriculum. For example, respondents from a university/training operation do not place the same emphasis on mixology as those in corporate or independent restaurants. Does this mean that students planning to pursue particular areas should do some specialization?

Recommendations

The study shows that those individuals hiring University of Missouri graduates are educated, successful, driven, and dedicated to careers in the food and beverage and hospitality industries. It is recommended that an increased importance be placed on fostering relationships with the future employers of the programs graduates. A stronger relationship would allow better communication and more candid feedback on how

successful the faculty and staff are and training graduates on the new curriculum.

Additionally, these relationships could help students obtain internships to help foster some of the critical skills which individual segments need their professionals to possess upon entering their workforce.

Respondents agreed that every item in the curriculum was important for graduates to know and be able to do. The respondents highlighted what they feel are some of the most important objectives, most of which concerned food, beverage, and labor cost controls. The original hotel and restaurant curriculum contained a course specific to food, beverage, and labor cost controls. When the course objectives were redistributed for the new curriculum structure, the course was broken into multiple pieces and placed in operations and management courses. Knowing the needs of the industry in this area it will allow the department and faculty members teaching the course to spend more time on these curriculum pieces. Having the course objectives divided into both lecture and lab based courses will allow for a more applied approach to teaching the concepts.

Respondents in each of the industry segments had slight variations in their level of importance for particular scores. Institutional food service operations have needs for solid management controls and labor scheduling. Event planners place great importance on menu design and development while club managers need to know how to properly pair wine with food. To assist with these unique areas of interest, it is recommended that a short course program be put into place to supplement the knowledge base of the graduates. Courses or programs such as menu design and development, food and wine pairings, advanced dining room/service fundamentals, government and institutional food service, and HACCP management courses are just a few examples.

The study has laid the foundation for the program to be able to build strongly around the needs of industry. In an effort to stay connected and continue to show dedication to producing high quality future industry leaders, further research will be needed. It is recommended a post-graduate study be conducted in three years. The study should collect information both from graduates and their supervisors as to skills needed and the level of preparedness of the graduates in each of these areas. This will fulfill the final steps in the participatory curriculum development approach, by assessing teacher's performance, student's performance, and the impacts of the training (Taylor, 2003).

Based on the overall opinion of the respondents, it is recommended that the food and beverage curriculum at the University of Missouri be deemed valid for the needs of industry. It is also recommend that results of this study be shared with current and future students, alumni, faculty members, and other stakeholders to shed light on the importance of the skills and content being taught in the program. Furthermore, it is recommended for the university faculty and stakeholders to continue to collaborate with industry professionals in an attempt to ensure they are preparing students to be future leaders of the hospitality industry.

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Appendix A:

University of Missouri's Hotel and Restaurant Management Program

Curriculum Validation Instrument

Hosted Survey - Windows Internet Explorer
http://www.hostedsurvey.com/takesurvey.asp?c=MJHRM2&Test=True

University of Missouri



TM

This questionnaire seeks to gain important information regarding the needs of industry as it relates to the food and beverage curriculum in an undergraduate hotel and restaurant management program. All survey responses remain strictly anonymous. The results will be analyzed so that no individual can be identified.

We greatly appreciate your time and effort and sincerely value your feedback.
Questions about this survey may be directed to the online survey administrator at:
Leslie G. Jett
jettlg@missouri.edu
573-884-3485

PREVIEW / TEST MODE
Your Responses Will Not Be Permanently Saved.
Contact your survey administrator if you were directed to this INACTIVE version of the survey.

If you are resuming this survey, please enter your return code here:

Hosted Survey - Windows Internet Explorer
 http://www.hostedsurvey.com/takesurvey.asp

University of Missouri - Food and Beverage Curriculum

Section I: Curriculum Objectives

Food Service Sanitation

For each of the items below, which relate to the Food and Beverage Curriculum, please, rate how important you feel the item is to what graduates should know and be able to do upon completion of their degree.

	Not Important	--	Somewhat Important	--	Very Important
Demonstrate an understanding of the dangers of foodborne illness, how to prevent it, and the keys to food safety.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discuss where contamination starts, the components for good personal hygiene, and how every employee can be a safe food handler.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Analyze and implement active management controls for safe product receiving, food storage, preparation, and service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Display a working knowledge of good personal hygiene, how to prevent cross-contamination, and how to utilize time and temperature control effectively.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Explain risk management and ethics.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interpret a HACCP plan.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Describe all the aspects of cleaning and sanitation in a practical, applicable manner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create a pest management program and explain how to keep pests out of the operation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify ways to best keep employee training ongoing to keep food safety working in every operation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Is something missing? If you feel something regarding Food Service Sanitation is missing, please add remarks here:

PREVIEW / TEST MODE
 Your Responses Will Not Be Permanently Saved.
 Contact your survey administrator if you were directed to this INACTIVE version of the survey.

Internet 100%

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 http://www.hostedsurvey.com/takesurvey.asp

University of Missouri - Food and Beverage Curriculum

Culinary Fundamentals

For each of the items below, which relate to the Food and Beverage Curriculum, please, rate how important you feel the item is to what graduates should know and be able to do upon completion of their degree.

	Not Important	--	Somewhat Important	--	Very Important
Identify kitchen equipment and be able to use them in production.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Demonstrate cutlery techniques and improved motor skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Apply an understanding of the principles of basic hot and cold food preparation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Describe the importance of purchasing and standards involved based on the different products.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquire and exhibit the basic methods of food cookery.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify and create sauces, stocks, and soups.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recognize the principles and complete the preparation of salads, dressings, and garde manger products.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify, classify, and prepare meats, poultry, game, fish, shellfish, vegetables, fruits, pastas, grains, and starches.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Is something missing? If you feel something regarding Culinary Fundamentals is missing, please add remarks here:

PREVIEW / TEST MODE
 Your Responses Will Not Be Permanently Saved.
 Contact your survey administrator if you were directed to this INACTIVE version of the survey.

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University of Missouri - Food and Beverage Curriculum

Operations and Controls

For each of the items below, which relate to the Food and Beverage Curriculum, please, rate how important you feel the item is to what graduates should know and be able to do upon completion of their degree.

	Not Important	--	Somewhat Important	--	Very Important
Explain the value of cost controls.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Calculate and analyze cost ratios, standard, and actual cost.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plan a menu based on sound menu planning principles.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Apply yield concepts in calculating food order and production quantity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Determine standard recipe and portion costs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recognize the use of menus as a managerial tool.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Analyze menu sales mix and set menu price.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Describe the importance of purchasing standards involved based on different product selection.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Define critical elements of service management.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Calculate daily or monthly food costs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Perform labor scheduling and calculate labor cost.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recognize control deficiencies and institute corrective actions throughout the food manufacturing cycles.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Is something missing? If you feel something regarding Operations and Controls is missing, please add remarks here:

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 Your Responses Will Not Be Permanently Saved.
 Contact your survey administrator if you were directed to this INACTIVE version of the survey.

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Hosted Survey

University of Missouri - Food and Beverage Curriculum

Beverage Management

For each of the items below, which relate to the Food and Beverage Curriculum, please, rate how important you feel the item is to what graduates should know and be able to do upon completion of their degree.

	Not Important	--	Somewhat Important	--	Very Important
Have an understanding of the changing drinking patterns of the U.S. public.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify the processes involved in creating and maintaining a profitable bar business.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Explain the major steps in serving alcoholic/non-alcoholic beverages, pouring beer, and opening and serving a bottle of wine.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Demonstrate the basics of mixology.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Describe the importance of standard recipes and inventory management.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify proper pairings of food and beverages.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Review the proper sanitary practices to be used in beverage service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interpret federal, state, and local laws concerning alcohol service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Summarize criteria used in selecting employees.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Apply techniques of monitoring alcohol consumption and server intervention.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recall resources that are available (liquor control, health department, local law enforcement, etc.) to develop a safe, customer friendly, profitable beverage operation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Is something missing? If you feel something regarding Beverage Management is missing, please add remarks here:

PREVIEW / TEST MODE
 Your Responses Will Not Be Permanently Saved.
 Contact your survey administrator if you were directed to this INACTIVE version of the survey.

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University of Missouri - Food and Beverage Curriculum

Commercial Production Management

For each of the items below, which relate to the Food and Beverage Curriculum, please, rate how important you feel the item is to what graduates should know and be able to do upon completion of their degree.

	Not Important	--	Somewhat Important	--	Very Important
Plan and manage basic necessary details of a food service operation including staffing, marketing, inventory management, menu and recipe development, food production, bar and beverage operations, and reservation systems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organize the efforts of front and back of the house staff for a smooth operation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Control cost associated with the meal in order to stay within budgetary guidelines.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Utilize appropriate production planning and scheduling techniques.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safely and properly use commercial production equipment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Train staff members for production and service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Implement proper sanitation procedures in handling of foods and servicewares.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exhibit time management skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Think critically and solve complex problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work independently with efficient work habits.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Perform task in a service operation offering table and bar service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work through difficult situations and customer concerns or issues.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Basic management principles of operating a food service facility.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Setup and serve food efficiently and fashionably with emphasis on presentation, portion control, temperatures, food consistency, and efficient systems for producing items in quantity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Is something missing? If you feel something regarding Commercial Production Management is missing, please add remarks here:

PREVIEW / TEST MODE
 Your Responses Will Not Be Permanently Saved.
 Contact your survey administrator if you were directed to this INACTIVE version of the survey.

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Hosted Survey

University of Missouri - Food and Beverage Curriculum

Tell us about you.....

How long have you been employed in the Hospitality and/or Food Beverage Industry?

Less than 1 year
 1-5 years
 6-10 years
 11-15 years
 16-20 years
 More than 20 years

Sector of Service

What is your current title?

How many employees do you currently have under your supervision?

What is your employer's annual food and beverage sales volume?

< \$499,000
 \$500,000 - \$999,000
 \$1,000,000 - \$1,999,999
 \$2,000,000 - \$2,999,999
 \$3,000,000 - \$3,999,999
 \$4,000,000 - \$4,999,999
 > \$ 5,000,000

On average, how many hours do you work per week?

1-20 hours
 21-30 hours
 31-40 hours
 41-50 hours
 51-60 hours
 61-70 hours
 71 or more hours

Sector of Service

- Hotel Catering Operation
- Hotel Restaurant Operation
- Conference and Event Planning
- Food Service Training & Education
- Food/Equipment Sales
- Independent Catering Operation
- Corporate/Franchised Catering Operation
- Corporate/Franchised Restaurant Operation
- Independent Restaurant Operation
- Health Care
- Sports Venue
- Cruise /Bus/Train/Airline Operations
- Club Operations
- < \$500,000 - \$999,000

What is your highest level of education you have completed:

- High School/G.E.D.
- 2 Year Degree
- 4 Year Degree
- Master Degree
- Doctorate Level Degree
- None Apply

What is your age?

- 18 - 24
- 25 - 30
- 31 - 36
- 37 - 42
- 43 - 50
- 51 - 56
- 57 - 62
- 63 - 70
- 71 or over

What is your gender?

- Male
- Female

PREVIEW / TEST MODE

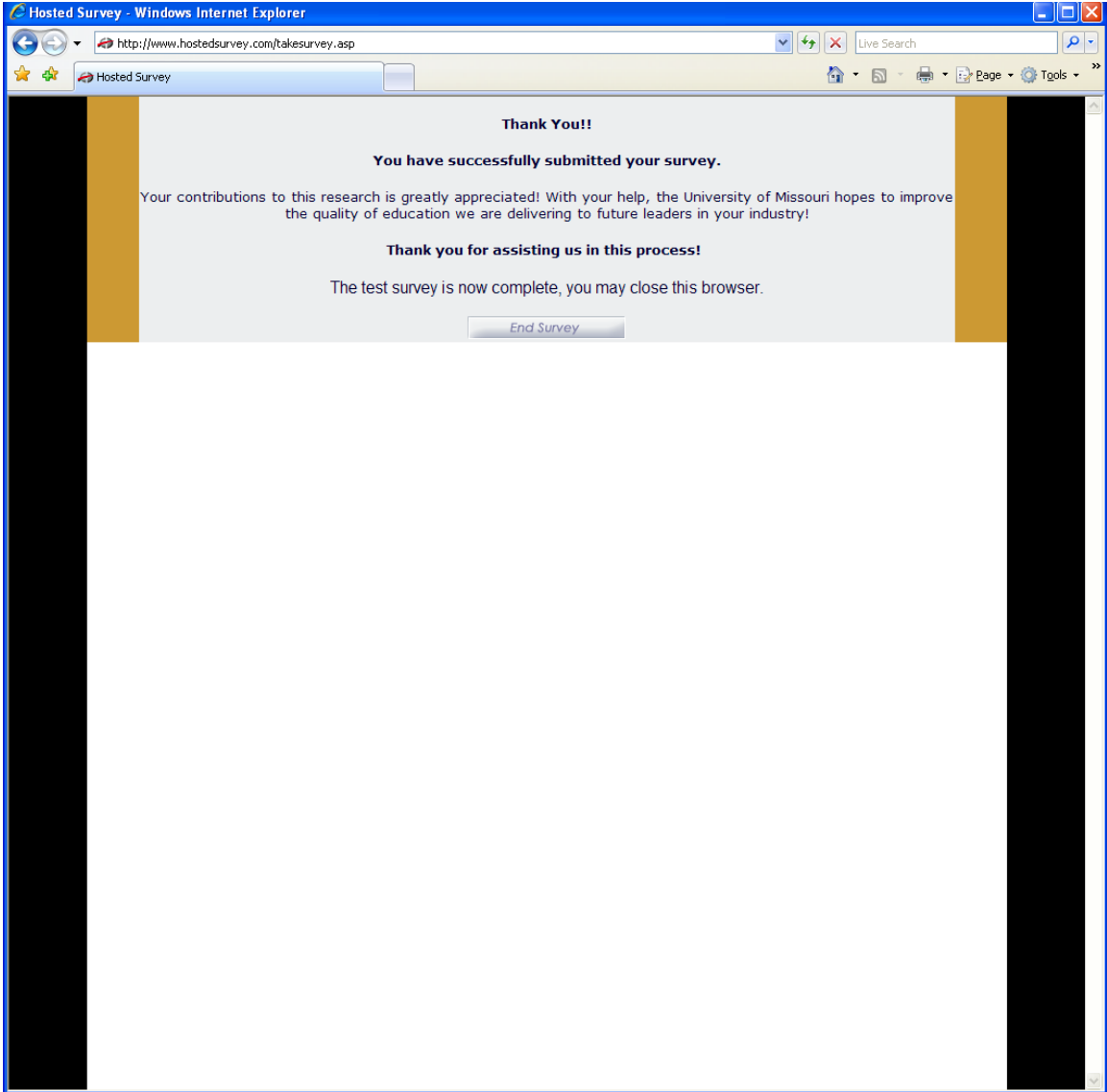
Your Responses Will Not Be Permanently Saved.

Contact your survey administrator if you were directed to this INACTIVE version of the survey.

[Submit Your Answers](#)

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Appendix B:
Panel of Experts

Table 19

Dissertation Panel of Experts (n=5)

Name	Role	Title
Dr. Bryan Garton	Chair	Associate Dean & Director, Academic Programs
Dr. Robert Terry	Member	Professor
Dr. Robert Torres	Member	Associate Professor
Dr. James Groves	Member	Associated Professor
Dr. Johye Hwang		Food and Beverage Educator/Subject Matter Expert

Appendix C:

Reliability estimates of the curriculum validation instrument

Table 20

Reliability estimates of the curriculum validation instrument (n=31)

Survey Question	Correlation Coefficient
Demonstrate an understanding of the dangers of foodborne illness, how to prevent it, and the keys to food safety.	.809
Discuss where contamination starts, the components for good personal hygiene, and how every employee can be a safe food handler.	.703
Analyze and implement active management controls for safe product receiving, food storage, preparation, and service.	.760
Display a working knowledge of good personal hygiene, how to prevent cross-contamination, and how to utilize time and temperature control effectively.	.854
Explain risk management and ethics.	.790
Interpret a HACCP plan.	.854
Describe all the aspects of cleaning and sanitation in a practical, applicable manner.	.767
Create a pest management program and explain how to keep pests out of the operation.	.894
Identify ways to best keep employee training ongoing to keep food safety working in every operation.	.724
Identify kitchen equipment and be able to use them in production.	.908
Demonstrate cutlery techniques and improved motor skills.	.804
Apply an understanding of the principles of basic hot and cold food preparation.	.824
Describe the importance of purchasing and standards involved based on the different products.	.836

Acquire and exhibit the basic methods of food cookery.	.824
Identify and create sauces, stocks, and soups.	..836
Recognize the principles and complete the preparation of salads, dressings, and garde manger products.	.764
Identify, classify, and prepare meats, poultry, game, fish, shellfish, vegetables, fruits, pastas, grains, and starches.	.762
Explain the value of cost controls.	.752
Calculate and analyze cost ratios, standard, and actual cost.	.723
Plan a menu based on sound menu planning principles.	.718
Apply yield concepts in calculating food order and production quantity.	.737
Determine standard recipe and portion costs.	.718
Recognize the use of menus as a managerial tool.	.737
Analyze menu sales mix and set menu price.	.697
Describe the importance of purchasing standards involved based on different product selection.	.714
Define critical elements of service management.	.702
Calculate daily or monthly food costs.	.849
Perform labor scheduling and calculate labor cost.	.842
Recognize control deficiencies and institute corrective actions throughout the food manufacturing cycles.	.793
Have an understanding of the changing drinking patterns of the U.S. public.	.814
Identify the processes involved in creating and maintaining a profitable bar business.	.751

Explain the major steps in serving alcoholic/non-alcoholic beverages, pouring beer, and opening and serving a bottle of wine.	.736
Demonstrate the basics of mixology.	.964
Describe the importance of standard recipes and inventory management.	.929
Identify proper pairings of food and beverages.	.943
Review the proper sanitary practices to be used in beverage service.	.929
Interpret federal, state, and local laws concerning alcohol service.	.957
Summarize criteria used in selecting employees.	.887
Apply techniques of monitoring alcohol consumption and server intervention.	.942
Recall resources that are available (liquor control, health department, local law enforcement, etc.) to develop a safe, customer friendly, profitable beverage operation.	.915
Plan and manage basic necessary details of a food service operation including staffing, marketing, inventory management, menu and recipe development, food production, bar and beverage operations, and reservation systems.	.718
Organize the efforts of front and back of the house staff for a smooth operation.	.806
Control cost associated with the meal in order to stay within budgetary guidelines.	.884
Utilize appropriate production planning and scheduling techniques.	.815
Safely and properly use commercial production equipment.	.802
Train staff members for production and service.	.890
Implement proper sanitation procedures in handling of foods and servicewares.	.843

Exhibit time management skills.	.726
Think critically and solve complex problems.	.767
Work independently with efficient work habits.	.706
Perform task in a service operation offering table and bar service.	.795
Work through difficult situations and customer concerns or issues.	.742
Basic management principles of operating a food service facility.	.728
Setup and serve food efficiently and fashionably with emphasis on presentation, portion control, temperatures, food consistency, and efficient systems for producing items in quantity.	.706
<i>Note.</i>	

Appendix D:
Email Invitation to Participate.

March 30, 2010
18:05:28 CST

Dear Mr. Jett:

The Hotel and Restaurant Management Program at the University of Missouri values your opinion. Therefore, we are seeking your input regarding the academic future of our new food and beverage curriculum. Your input will be used to enhance the quality of the curriculum and help us better prepare graduate for futures in our industry.

Below is a link to an online questionnaire which consists of two sections. The first section addresses academic outcomes for sanitation management, culinary fundamentals, operations and controls, beverage management, and commercial production management.

The second section gathers basic demographic information about you, your industry experience, and your current employer. The entire questionnaire should take approximately 10 minutes to complete. Please be assured that all your responses will remain confidential and only summated group data will be reported.

Participation in this study is voluntary. Should you choose not to participate in this study, simply reply to this email and type "Not Participating" in the subject line. Rest assured that your refusal to participate in this study will not affect your relationship with the HRM program or the University of Missouri.

Should you have questions concerning this study, please do not hesitate to contact me via e-mail at GrovesJ@missouri.edu or by phone (573) 884-4114. Also, feel free to contact Chef Leslie Jett, coordinator of the study, as well by e-mail at Jettlg@missouri.edu or by phone (573) 884-8301. You may also contact the University of Missouri Campus IRB Office at (573) 882-9585 for further information concerning human participation in research studies.

Survey URL:

<http://www.hostedsurvey.com/takesurvey.asp?c=MUHRM&rc=8843485>

Thank you for your time and participation. I look forward to receiving your responses!

Sincerely,

James Groves, PhD
Hotel and Restaurant Management, Chair
College of Agriculture, Food and Natural Resources
University of Missouri

Chef Leslie G. Jett
Food and Beverage Faculty Lead
Hotel and Restaurant Management Program
College of Agriculture, Food and Natural Resources
University of Missouri

This email was sent to Jettlg@missouri.edu by jettlg@missouri.edu.
If you have questions about this email or do not wish to receive additional emails, please reply or contact the survey administrator.

Appendix E:

First Follow-Up Email to Participate

April 5, 2010
00:00:28 CST

Dear Mr. Jett:

Recently, you received an email asking for your help with a study regarding your opinions of the new food and beverage curriculum at the University of Missouri's Hotel and Restaurant Management program. As of today, you have not yet shared your thoughts! Please do so...they are valuable to us.

In case you did not receive the email, or accidentally deleted it, I have once again provided the link below. Please click the link and complete the questionnaire; it should only take 10 minutes. Please respond to each question openly and honestly by Wednesday, April 7th.

Survey URL:

<http://www.hostedsurvey.com/takesurvey.asp?c=MUHRM&rc=XXXXXX>

Respondent ID: XXXXXXX

Name: Jett, Leslie

Company: University of Missouri

Email Address: Jettlg@missouri.edu

As indicated in the initial email, your participation is voluntary. Should you choose not to participate, please simply reply to this email and type "Not Participating" in the subject line. Your refusal will result in no penalty or loss of benefits to which you might otherwise be entitled. If you have any questions about this research project please contact me at jettlg@missouri.edu or (573) 884-2485. You may also contact the University of Missouri Campus IRB Office at (573) 882-9585 for further information concerning human participation in research studies.

Thank you in advance for your participation! I look forward to receiving your response by Wednesday, April 7th.

Have a terrific day.

Very Respectfully,

Chef Leslie G. Jett
Food and Beverage Faculty Lead
Hotel and Restaurant Management Program
College of Agriculture, Food and Natural Resources
University of Missouri

This email was sent to Jettlg@missouri.edu by jettlg@missouri.edu. If you have questions about this email or do not wish to receive additional emails, please reply or contact the survey administrator.

Appendix F:

Second Follow-Up Email to Participate

April 8, 2010
00:00:05 CST

Dear Mr. Jett:

Within the past week or so, you received an email asking for your help with a study regarding your opinions of the new food and beverage curriculum at the University of Missouri's Hotel and Restaurant Management program. We don't intend to clutter your inbox, but this information is very important to the University in order to improve its academic programming. As of today, you haven't responded.

This is your final chance...Please share your opinions with us by clicking the link below. The questionnaire should only take about 10 minutes of your time. Please complete the questionnaire by Friday, April 9th. After that, the questionnaire will no longer be available.

Survey URL:

<http://www.hostedsurvey.com/takesurvey.asp?c=MUHRM&rc=XXXXXXX>

Respondent ID: XXXXXX

Name: Jett, Leslie

Company: University of Missouri

Email Address: Jettlg@missouri.edu

As indicated in the initial email, your participation is voluntary. Should you choose not to participate, please simply reply to this email and type "Not Participating" in the subject line. Your refusal will result in no penalty or loss of benefits to which you might otherwise be entitled. If you have any questions about this research project please contact me at jettlg@missouri.edu or (573) 884-2485. You may also contact the University of Missouri Campus IRB Office at (573) 882-9585 for further information concerning human participation in research studies.

Thank you so much for your help with this study!

Very Respectfully,

Chef Leslie G. Jett
Food and Beverage Faculty Lead
Hotel and Restaurant Management Program
College of Agriculture, Food and Natural Resources
University of Missouri

This email was sent to Jettlg@missouri.edu by jettlg@missouri.edu. If you have questions about this email or do not wish to receive additional emails, please reply or contact the survey administrator

Appendix G:

Email to Participants Who Started but Did Not Finish Instrument

April 11, 2010
23:35:07 CST

Dear Mr. Jett:

Within the past week or so, you received an email asking for your help with a study regarding your opinions of the new food and beverage curriculum at the University of Missouri's Hotel and Restaurant Management program. Although you began the questionnaire, not all questions were answered. Because we really want to know your thoughts and we're not sure whether you had technical difficulty or simply chose not to finish the questionnaire - we are sending the link once again!

When you click the link below, you will be directed to where you left off. The remainder of the questionnaire should not take you long to complete.

Survey URL:

<http://www.hostedsurvey.com/takesurvey.asp?c=MUHRM&rc=XXXXXXX>

Respondent ID: XXXXXX

Name: Jett, Leslie

Company: University of Missouri

Email Address: Jettlg@missouri.edu

As indicated in the initial email, your participation is voluntary. Should you choose not to participate, please simply reply to this email and type "Not Participating" in the subject line. Your refusal will result in no penalty or loss of benefits to which you might otherwise be entitled. If you have any questions about this research project please contact me at jettlg@missouri.edu or (573) 884-2485. You may also contact the University of Missouri Campus IRB Office at (573) 882-9585 for further information concerning human participation in research studies.

Thank you so much for your help with this study!

Very Respectfully,

Chef Leslie G. Jett
Food and Beverage Faculty Lead
Hotel and Restaurant Management Program
College of Agriculture, Food and Natural Resources
University of Missouri

This email was sent to Jettlg@missouri.edu by jettlg@missouri.edu. If you have questions about this email or do not wish to receive additional emails, please reply or contact the survey administrator.

Appendix H:
Responses to the Open Ended Questions

Table 21

Responses to the Open Ended Questions (n=12)

Curriculum Section	Open-Ended Response
Food Service Sanitation	Sanitation and food safety have to be part of the culture of a successful operation. You cannot preach it and expect results unless the entire staff lives it.
Food Service Sanitation	Demonstrate the methods of validating staff members on their food safety knowledge.
Food Service Sanitation	Any knowledge that helps you keep from making people sick or possibly killing someone is very important.
Culinary Fundamentals	Basic food pairings with other foods and with wine/beer/spirits
Culinary Fundamentals	Create, resize, and follow a recipe
Operational Controls	Labor! Labor! Labor!
Operational Controls	Describe other costs in operations (e.g., utilities, equipment maintenance and repair, equipment purchases, advertising and marketing, rental, travel and training).
Operational Controls	Ability to observe and coach employee behaviors that are detrimental to cost controls
Operational Controls	Recognizing and tracking waste, handling loss, and shrinkage.
Commercial Production Management	FoH vs. BoH the feud goes back almost as far as MU vs. KU, you typically find 2 very different personality types working in these positions. Communication skills is a very important tool that will not only benefit you in employee to employee communication but manager to guest relations.
Commercial Production Management	Build an effective team of staff members who work well together (e.g., teambuilding). Manage employee performance (e.g., orientation, training, setting goals, coaching performance).
Beverage Management	While not law yet, Tips or Serve Safe alcohol will become law. Insurance premium renewals now mandate staff has been through a certification process and that the establish has a manual on dealing with alcohol consumption by patrons.

Appendix I:

VITA

VITA

Leslie G. Jett was born on November 14, 1976 in West Plains, Missouri. After attending public school at Alton/Oregon County R-4, he received the following degrees: B.S. in General Agriculture and a B.S. in Hotel & Restaurant Management from the University of Missouri (1999); Associates of Applied Sciences in Culinary Arts from Johnson & Wales University-Charleston, South Carolina (2001); Master's of Education from the University of Missouri (2001); Ph.D. in Agricultural Education from the University of Missouri (2010). Jett will remain on faculty in the University of Missouri-Columbia Hotel and Restaurant Management program, which he joined in 2003. He serves as the program's Executive Chef and Operations Coordinator, overseeing the school's foodservice programs and curriculum. Jett also serves as a Supply Corp Officer in the United States Navy.