

Food Service and College Operations: A Business Anthropological Case Study, USA

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Abstract

Business anthropologists have attempted to solve various problems within particular firms using ethnographic techniques, which have become increasingly popular in business industries worldwide. Consumer behavior and marketing strategies in the food industry have been studied extensively. The goal of this study is to use anthropological methods to analyze the effectiveness and efficiency of food-service management on one college campus. The authors hope this research will provide a comprehensive overview of managerial methods and highlight areas for improvement within the structure of the food service at an educational institution. Please note that the questionnaires employed in this study are not reprinted here but are available upon request from the principal author.

Introduction

Since campus food services provide food to consumers, understanding the social and cultural aspects of food consumption is important to food-service efficiency. Customers are not only consuming tangible food and drink, but also practicing intangible customs and values associated with the institution of which the food service is a part (Tian 2001). The efficiency with which these intangible services are provided can significantly affect the culture of both the consumer and the food-service organization. Additionally, food of course carries cultural meanings (De Mooij 2004) that vary among cultural and sub-cultural groups as in food choices and eating habits (Fathauer 1960). This study describes the dining needs of students on a particular college campus, examines the food services provided, and analyzes the managerial effectiveness of the dining hall of the college. The subject of our research is Coker College, Hartsville, South Carolina.

One defining issue of food service is *food quality*, which can be viewed in terms of factors of the food itself and of factors of the consumer. Herbert Meiselman (2003) uses a tripartite approach in understanding food quality by isolating the product, the person, and the environment as factors affecting one's view of food quality and its acceptability. One case study shows that food acceptability does not necessarily predict food intake. That situation is so

because of situational, contextual, or environmental factors (Hirsch and Kramer 1993) that affect food quality, all of which support Meiselman's (2003) three-factor approach.

Monotony is another factor that should be considered. It involves the perceived short interval of time since the last serving of a particular food and is particularly important in institutional settings where the same people eat frequently and repeatedly (Meiselman 2003). Scott Hoffmire, president of Food Insight, says that

typically in a closed system such as campus dining programs, student fatigue sets in, and perceptions of service and satisfaction normally decrease over the nine academic months (*Food Service Director Staff* 2002:14).

Of course, an individual's food expectations can affect *food quality* and its acceptability as well as dining location (Meiselman 2003). The latter is an important aspect for campus food services to consider when reviewing the factor of *food quality*.

Individuals often select particular types of food to identify with a specific social group such as ethnic background, age, and race (Lawn 2004), leading to an increased need for diversification within food-service organizations. This trend is due to increasing variation in ethnic and cultural groups within their customer base. It is advisable for universities to make changes in the way they operate, including food service departments, to keep up with the demographic revolution sweep-

ing across the United States today (Watkins 2000). Because outside business competitors are willing to cater to students with diverse backgrounds, accommodating campus food-service diversification would be advantageous. That is, in today's world, campus food needs to be as diverse as the cultural backgrounds of the students eating it and their social interactions (Boyce et. al, 2002; Deason and Tian 2003).

Since commercial restaurants are influencing students more and more and changing their expectations, the challenge for campus dining is to keep meeting this rising demand with offerings that satisfy these contemporary customers (*Food Service Director Staff* 2002:14).

This aspect is part of the emphasis on material culture prevalent in American society. When applied to college students, *food quality* has become an important value in their beliefs about food consumption, or more straightforwardly put, about their food preferences. Food services are affected by two primary changes within student consumer behavior. First, students have higher expectations for meal-plan options, food service options, and campus dining experiences that reflect the increase in the number of non-traditional, non-residential students attending college. Second, students within the traditional context of on-campus residential living are increasing their use of off-campus food services because of the value and convenience they provide. Many traditional students are extremely mobile. This pattern is due in part to the various work, social, or cultural functions that take them off campus. Both trends require campus food services to re-evaluate what they offer in order to accommodate the changing consumer market. Enough cannot be said about the importance to a food service of understanding the cultural context of their customers. In the environment of colleges and universities, these customers are of course primarily students with plenty of food diversity based upon ethnicity, as mentioned. But there are other cultural and social aspects of student consumers that affect their dining needs and choices as discussed below.

To fully understand the magnitude of food-

service management within a college campus and its impact on operations, we need to clearly understand the relationship between the food service and the consumer. In this case, we believe that student satisfaction is the driving force behind managerial effectiveness, as a campus food service is designed to provide students with nourishment and in turn to produce revenue for the college. The degree to which students' satisfaction is impacted by the effectiveness of management affects overall college operations in either a positive or negative way. The influence of effective food-service management can be seen in several key areas of campus operations, such as revenue, reputation, enrollment, recruitment, student health, student learning, and campus life. Providing students with a variety of meal-plan options, a diverse food menu, and enjoyable dining will keep student food dollars on campus as well. Good campus dining services will also effectively market their products to new enrollees.

By taking an anthropological approach related to business, this study analyzes the efficiency of food service at Coker College and its impact on college operations. The focus is on the managerial aspect of the dining hall. Using both qualitative and quantitative methods of ethnographic research, the study draws conclusions and suggests improvements. What affects the efficiency of food-service management on campus? How does food-service management affect other Coker College operations? What innovative ways might improve the dining hall and, subsequently, its relationship to other campus functions?

The Study

This project uses qualitative research methods to analyze the effectiveness of food-service management and its impact on operations at a college campus. It draws upon a representative sample of the student body to elicit preferences and opinions about the dining hall. Today's business people have increased their use of qualitative methods to uncover invisible cultural and social factors within their structures. "Anthropology's qualitative fieldwork techniques are one of its most valuable contributions to business" (Jordan 2003:20). This application applies to the

authors' research on a college food-service organization with the aim of identifying valuable information about managerial behaviors to isolate areas for improving this specific food-service business.

The Food Service and the College

The study's setting is the dining hall of a small college in Hartsville, South Carolina. Coker College is a private liberal arts college established in 1908. At the time of writing, total enrollment was 1153, with 537 students attending as full-time day students coming from 24 states and five foreign countries. Of these, 61 percent would be women and 39 percent men, 25 percent African-American, with 2 percent comprising other minorities. The remaining 73 percent of the day students would be European-Americans. There are 129 faculty members, with 59 of these being full-time professors. These percentages are important because various cultural differences can be found within such demographic groupings as gender, age, ethnicity, and occupational orientation.

The dining hall is located between two major student-residence halls, a prime area for attracting both residential and commuting diners because of its easy accessibility. The dining hall features a large cafeteria with seating for 160 patrons. The hall also includes two separate food bars within the cafeteria space and a separate room with a main entrée bar. The main entrée bar area is situated inside the cafeteria's entrance, off to the right side.

The staff of the dining hall includes two managers with one on duty and in charge on a given day, plus two cashiers, and ten food workers. The managers are both male with respective ancestries from Europe and India. The cashiers, not always on duty at the same time, are both African American and female. The food workers comprise two Caucasian Americans and eight African Americans with a gender distribution of six males and four females.

The Coker College Dining Service Department lists the hours for each meal: breakfast from 7:30 to 9:30 a.m., lunch from 11:30 to 1:15 p.m., and dinner from 5:00 to 6:30 p.m. The price for lunch, for instance, is \$4.75 and diners may select from any food bar as often as they

like. Take-out meals are not allowed; outside food cannot be brought in. Residential students are required to participate in the meal plan that provides them with three meals a day in the dining hall. Faculty, staff, and commuters may purchase a 30-meal, 10-meal, or declining-balance plan the calculation of which is designed to be placed onto their college identification cards. They also have the option of paying with cash each time they eat in the dining hall.

Methodology

This study measures the level of effectiveness of food-service management within the *Dining Service Department* and determines the extent to which it affects other campus operations by way of the following research methods: direct and systematic observation, interviewing, requesting a self-administered survey, and conducting a focus-group discussion. To measure effectiveness, we concentrated our observations on the staff's behavior and examined consumer behavior to record cultural aspects and social impacts. The interviews elicited factors about the students' use and enjoyment of the dining hall. We used the questionnaires to collect more extensive information about dining attitudes toward food-service management and other campus operations. The focus group provided a more detailed and specific record of individual dining hall patrons' thoughts or feelings towards food-service management and other campus operations.

Direct systematic observation of behavior is one of most used ethnographic field methods and is of course known as participant observation. Seriously attentive to problems of sampling and measurement (Baksh 1989, Johnson and Sackett 1998), the observations took place in the dining hall over a two-month period. For example, we scanned the entire dining hall every five minutes paying particular attention to the physical aspects of the cafeteria and the behaviors of different types of diners and workers.

The building is very large with adequate seating and many windows. The patrons constitute students and faculty members. The workers are recognized by the functions they perform. More in-depth observation relates to the topic of managerial capabilities. In a consumption-based

study, observational research can make an organized record of customers' behavior to find out what they like and what they do not like from the moment they walk in until the moment they dump their trays into the waste bin, so to speak (Abrams 2000). To collect accurate data, each observation had its date, time, and location recorded.

Specific observations range from student-worker interactions to the flow rate of diners and to further observations about the physical characteristics of the dining hall. First, we saw that students were, for various reasons, not being made to swipe their cards and pay for the meals they were eating. Second, we saw that staffers often used slow time as free time to socialize with each other. Third, we saw long lines for food and students waiting several minutes for food items. But, fourth, we saw many students socializing while eating together.

A copy of the 27-item questionnaire is available on request from the principal author. For example, three of the questions collect demographic information from the respondents, two questions ask about their particular use of the dining hall, two questions ask about the role of food service as a factor in college selection, and one question concerns meal plans. Certain questions pertain to the impact of the food service on various dimensions of other campus operations; seven questions address the magnitude of its impact, six ask if there was no effect, and six ask if the effect was positive. A Likert scale, pioneered by Rensis Likert (1903-1981), collects attitude data with a continuum of possible responses ranging from *Strongly Agree* to *Strongly Disagree*.

Students from a business anthropology class (BA 391, *Business Anthropology*) distributed the questionnaire at the dining hall by randomly selecting 15 dining tables at lunch time and 10 dining tables at dinner time on a typical weekday for a total of 128 questionnaires validly and seriously filled out.

We interviewed 37 diners. The interview protocol consists of six questions available upon request from the principal author. The focus group consisted of ten individuals from the college who basically represented the diversity of the full-time day student body on campus via

ethnicity, residential status, student status, age, and gender. The group answered a total of five questions prepared in advance, with the facilitator prompting as needed with additional questions. The formal questions were: (1) It is suggested that the effectiveness of food service on campus has many direct and indirect impacts on the overall operations of the college. Do you agree or disagree with this statement and why? (2) Based on your own experience and your observations, what are possible positive and negative impacts that food service can have on operations of the college? (3) What are direct and indirect impacts that food service quality can have on the students' opinions of and behaviors in a college? (4) How will you comment on the food service and its influence on the reputation of the college, student recruitment, student retention, student morale, and motivation in terms of learning? (5) What would you suggest the college do in terms of food-service management? (See Table 1)

Findings and Discussion

In order to gain valid data about managerial efficiency, we isolated several specific areas for observation. It is important to note that anthropological qualitative research should never ignore valid observations that might fall outside the specific guidelines for a certain study. Moreover an observation that might initially seem irrelevant to the subject of a study may have an underlying cultural impact on that study. It has been said that anthropologists working on issues surrounding consumer behavior find that we as consumers both direct and are directed by others (Jordan 2003:68). Essentially, we as observers assumed that dining-hall staffers and diners affect each other's actions. Consequently, several of the study's observations focused on the interactions between these two groups. (See Table 2)

As seen in Table 2, two frequent observations were made. First, students were, for various reasons, not being made to swipe their cards and pay for the meals they were eating. Second, was that the staff often used slow time as free time to socialize with each other. Both of these observations directly affect the efficiency of the dining hall plus long lines with students waiting several minutes for food items once the food is reached.

We categorized the patrons into ten demographic groups, the majority being students, and observed them throughout two lunch days with the totals shown below in Table 3. As a rule, these students eat in groups of two to six people. While many of the students eat with others of the same race and/or gender, the majority of groups viewed were of mixed gender and ethnicity. Table 4 documents observed food-service habits / behaviors of both students and workers. One clear generalization is that the salad bar is a popular area and food source among diners. (See Tables 3 and 4)

Many students pursued the option of using the food lines as often as they wanted for more food. Pizza was the food diners ate most often, followed closely by salads and tacos. Many individuals were observed to be eating in a leisurely manner, indicating they were not in a hurry to finish their meals. These findings can help to determine the right foods to serve to maximize the effectiveness of the food service menu.

Issues of food quality and quantity and of health practices can drastically affect the effectiveness of a food service. Table 4 also shows that, in reference to the quantity of food, many students returned to lines for the same foods because small food portions. Patrons are only allowed one piece of pizza at a time, resulting in many return trips for another piece. Then there is the speed at which the salad bar is replenished. Several students were observed scraping the bottom of containers for various salad ingredients.

Concerning food-service quality and dinnerware, on multiple occasions students were observed wiping off wet plates before they could take any food. A few other health issues were observed as well. No employees were ever observed wiping off food bars or tables to clean them. Only one employee was witnessed wearing a head visor and no employees were ever seen wearing hair nets. We saw only one trash bin be provided for the students to dump food remains and other garbage/trash, and this receptacle was not emptied and replaced in time and thus is often full. (See Table 5)

We conducted interviews with thirty-seven diners to help verify the efficiency issues observed in the college dining hall. Demographic

data for the interviewees are listed in Table 5 above, showing that the demographics were fairly even in each category.

Typical responses to positive things about the food service center around the various specialty bars in the dining hall. Pizza is the most popular answer of a good offering to be found in the dining hall (12 responses) followed by desserts (10), sandwiches (9), and salads (7). The breakfast meal also ranked high (6 responses), and the factor of dining hall being a good place to socialize also ranked high (7 responses). The overwhelming bad thing about the food service amounts to lack of variety (26 responses). Students are very unhappy with eating the same meals week-to-week and day-to-day and would like to see a more varied menu. There was some unhappiness with the cleanliness of the dining ware as several students complained about unclean dishes, silverware, and glasses (7 responses). (See Table 6)

Also, the lack of food quality was a very popular answer (14), as well as complaints about the poor service from staff in the dining hall (9). The answers referring to good experiences in the dining hall were varied, but good socialization with friends ranked number one (35) and a midnight breakfast event came in second (24). The responses to the question of bad experiences were fairly similar. The main answers students gave were getting sick from food (8) and that the taste of food was poor (8). Student's responses to changes they would make as manager showed that many would listen more to input from students (15 responses). Other strong changes include food quality (6), food variety (6), and changes to staff attitudes and behavior (7). The last interview question saw several popular answers, and it pertained to what students would do about food service if they were the president of the college. The top three answers were to search for new contractors (10), to have monthly meetings with food-service management (10), and to send out student surveys to make changes according to student needs (6).

Survey results provide quantitative information that can help validate more qualitative data of this study. The demographic portions of the questionnaire that proved relevant to this study are categorized in Table 6. Fifty-six percent of the

diners at the college's cafeteria are males and 44 percent are females. The sample gender ratio does not fit exactly with the overall college population. The sample mainly consists of full-time students whose gender ratio, according to the college database, is almost balanced. One possible explanation for this could be simply sampling error as the respondents were not specifically randomly selected but selected by randomly picked dining tables. (See Table 7)

The ethnicity of the dining hall patrons is 52 percent Caucasian, and African-Americans make up another large sector with 26 percent. The questionnaires also highlighted the fact that almost all of the people eating at the dining hall are students. With 89 percent of diners being students, and with nearly half of all diners using the hall three times a day and on weekends, it is apparent that the majority of the diners are residential students. As mentioned, the residential students are required to partake in the meal-plan offered by the college. These two facts taken together bring to light an important finding. Since the majority of diners are residential students who frequently use the dining hall, the fact that 59 percent of all diners dislike the meal-plan shows an area for concern with regards to food-service quality. This study shows that students do not like to be forced to use the dining hall, but that since they are already paying for the meals, they will use them. This can have a major impact on the relationship between the college and the students, as well on the students' attitude towards the dining hall. (See Table 8)

Diners feel that the quality of food service affects the relationship between a student and the college; 77 percent of diners are in agreement. Thus patrons' food experiences influence how they view the college, which is a major development for the administration showing the need for managerial efficiency to be as high as possible.

Another key finding from the data in Table 8 is that the majority of those surveyed (56 percent) do not feel that the quality of food service is the most important factor in college selection. Since 45 percent also disagreed with the idea that food service was not a factor at all in college selection, it can conclusively be stated that although food service quality is not the most important factor when deciding upon a college,

it is a factor that affects students' decisions. Administrators need to be aware of the structure of their food-service management because it impacts the reputation of the college itself. (See Table 9)

Several demographic categories were singled out for further analysis: gender, diners who used the hall three times per day, and ethnicity groups. The role of gender can have an impact on the views of student diners in relation to the effectiveness of the management at the campus-dining hall. In turn, this can influence their ideas about the campus as a whole and various aspects of campus operations. Table 9 shows some of the most relevant questions posed to both male and female diners. The table shows that while male and females alike agreed that food service quality can greatly affect both student morale for learning and learning outcomes, they disagreed about the positive impact seen at the college. Also, 49 percent of males surveyed believe that learning outcomes are negatively affected by the quality of food service at the college, while only 38 percent of females felt this way as well. A previous study by Tian and his students found that males and females tend to have different eating habits and patterns due to differing components of culture (Boyce et. al. 2002). In addition, the data collected in this study indicate that gender can create a difference in attitudes surrounding food and food service as well. Another finding in the category of gender was that over ten percent more males than females felt that food service quality was not the most important factor in college selection.

The researchers felt that looking further into the data collected about diners who used the hall three times per day was imperative for a full analysis of this subject. The diners who use the cafeteria most frequently are mostly residential students who also use the hall on the weekends. From the data already discussed, it is apparent that these diners are not happy with the meal-plan currently in place. It is important from a managerial effectiveness standpoint to see if there are other issues that the most frequent users of the facility are not satisfied with and try to correct them. Therefore, the researchers isolated several key ideas shown in the questionnaire in relation to 3 time/day diners. This infor-

mation is shown in Table 10. (See Table 10)

One of the main findings within the three-per-day dining hall users is that they feel that the food service quality negatively impacts the college's reputation. Compared to all the other usages within this category, the three-per-day diners make up 55 percent of all the diners who feel this way. In comparison, other users of the dining hall tend to think that the food service is a better influence on the college's reputation. Of all those in agreement, 64 percent were people who did not use the dining hall three times per day. Additionally, the three-per-day diners voiced stronger disagreement for the positive impact on learning morale and outcomes than any other usage group. This data points to the fact that the more frequently a diner uses the food service at the college, the less positive they are about their experience. This shows a decrease in student attitudes over time with regards to the effectiveness of the management. Furthermore, it can be assumed that diners will regard not only food-service management, but also the totality of campus operations, in a less positive light over time, which is an issue for management to consider for effectiveness.

Focus Group

Focus-group findings reveal that college is essentially a product. The efficiency of the food service can impact the recruitment of new students and the satisfaction of existing students, and, in turn, the college as a whole. Students realize that a portion of their tuition goes into food service, and if this service lacks effectiveness, then they may feel that their money is being wasted, which may negatively affect the student/college relationship.

The focus group discussion also showed how bad food service can negatively affect aspects around campus, such as retention rate and college revenue. The students voiced concerns over the quality and variety of food served at the dining hall, supporting observations made throughout the study. The final issue brought up in the focus group had to do with campus meal plans. Many students felt that they would have more success on campus and in the classroom if they were provided with more healthful and appealing food choices. The focus group rein-

forced the issues raised in the other sources of data and showed the importance of food service to a student's culture and social structure.

Conclusion and Managerial Implementations

Managerial efficiency and effectiveness are both important aspects in any business. When applied to a strong consumer-based business such as food service, these issues take on an even more important role. If consumers are not happy with their service or dining experience they will not happily return. It is important for management to grasp the relationship between efficiency and customer satisfaction. In the case of this college dining hall, there are areas of operation needing improvement. (See Table 11)

Customers seem to view a business as being there to provide for and service their needs. This means that the way food tastes and is experienced can be impacted by the level of service (Waters 1998:50). A suggestion for management is to increase the emphasis placed upon customer satisfaction by implementing the changes students have suggested, including the variety, quality, and sophistication of the food being served. New items could be added to the menu on a rotating schedule. It could be seen which new items customers preferred to bring them in on a more regular basis.

All in all, effective management of college dining services can greatly impact many aspects of the college organization. It is essential for managers to utilize their resources and improve campus-dining effectiveness. The wave of undergraduate enrollment that has been sweeping across college and university campuses for the last five years has opened up structural fissures in many campus life programs, often with significant implications for dining services (Lawn 2003:8). Therefore, it is imperative that management be as effective as possible to promote and increase revenue that can be used for dining service upgrades. These upgrades are mandatory in order to keep up with the expectations and demands of student consumers; consumers that can be seen in a whole new light thanks to the perspective of business anthropology. Effective promotion of revenue could be implemented by scheduling monthly meetings to review issues

within the food-service sector.

By listening attentively to the ideas of students, improvements in food service have been made and proven to work at Duke University in North Carolina (Alexis 2005). On Duke's campus, the director of dining services has increased revenues by nearly 100 percent in less than ten years, and he attributes most of this success to a rigorous system of surveys. They cover everything from the student's menu needs to the appearance of the food-service staff. Once the surveys are collected, they are put to use in a complex metrics model that shows areas needing improvements in the context of the performance levels of all aspects of the food service. Listening and responding are the key strategies.

The cultural contexts of food-service organizations and student consumers shape the culture of the college institution. Food is vital to all areas of campus culture and life. "It teaches us to understand each other's cultural and taste differences as a vital part of social behavior" (Jaynes-Stanes 2004:18). Campus food services are greatly influenced by the student/consumer behavior with regard to food consumption. And student diners are influenced by their cultural groups, their own expectations, and by organizational structure. The issue of customer service addresses the relationship between student consumer behavior and effective management of campus food services. The positive or negative attitude about managerial efficiency that stems from this relationship ultimately determines the overall impact on the college. This means that

the first step to improving efficiency within food-service management on campus is to change its relationship with the students. Whether by implementing recommendations of a student survey, expanding the menu, or running a goodwill promotion on improvements, food-service management must booster its image with students in order to become more efficient. In short, good management is about caring for people (Walkup 1997:70); it is always possible to satisfy the customer if the business is sufficiently committed to that goal (Firnstahl 1989:31). If campus food-service organization can successfully combine these two concepts, along with an understanding of cultural concerns, then effective management will prevail. This situation leads to an increase in the overall productivity of campus dining services, and college operations will reap benefits as positive impacts.

Future Research

What role does socialization play in a student's attitude toward food service and its influence on the college campus? Data for this future research question might be gathered through our prime method of direct systematic observation and analyzed through inferential statistics, such as correlations among key variables. We would want to look at correlations among year in college, frequency of meals, gender, and ethnicity and level of satisfaction with the food service. That is, to what extent do these variables correlate? ○

Table 1. Key Areas Influenced by College Foodservice Management

Area	Content and Comment
Revenue	Initially, the biggest impact of effective management can be seen in overall campus revenue, illustrated by an industry census taken by the Food Service Director. This census showed that even though total meals served decreased by 5%, due to decreasing enrollment, total revenues from food serve still increased by one-half million dollars. This increased revenue was due to increased emphasis on retail operations (Anon., 1998). This shows how diversification and efficient management can increase revenue even with decreased number of student consumers.
Reputation	Effective management of campus dining programs can also affect a college's reputation. For example, an overhaul to the University of Northern Iowa's campus dining facility has helped improve the reputation of the college. It has also given them national exposure in magazines like Food Service Director and Food Management (Watkins 2004).
Enrollment	Effective management can affect the current enrollment of a college by providing them with a variety of meal-plan options, a diverse food menu, enjoyable dining experiences, and a plethora of eating establishments. All this can be achieved on-campus, thereby keeping student food dollars on campus. Good campus dining services will also effectively market their products to new enrollees. The University of Connecticut showed how to use effective management skills to spread the word about campus dining. When students were moving into the dorms, Dining Services provide them with a "goodie bag." This bag contained a meal-plan brochure, the dining hall menu for the first week of school, information about the campus debit-card program, and a job application for the dining service of the school (King 2000). This is an excellent example of how effective management and creativity can increase the current enrollment of a college.
Recruitment	Not only can effective management of campus food services affect college enrollment, but the recruitment of potential students can be influenced as well. As colleges and universities around the country lure students with the promise of excellent academic opportunities and an attractive quality of life, dining services have become a major part of the recruitment package. One example of this can be found at the College of Wooster in Ohio. After completing a 26-day, one million dollar renovation project to the college's dining hall, the hospitality director noted an added benefit of the renovation. The added benefit is that "the dining hall has become a focal point for prospective student tours and [it's] a great selling point for the total college experience" (Sheehan 2002:31).
Student Health	Another issue affected by efficient management is the issue of student health. In a campus dining setting, effective management is concerned with the nutritional value of the food they are serving. Unlike off-campus eateries, campus-dining halls are held to institutional nutrition guidelines. The goal of effective management in a campus atmosphere is to provide tasty, nutritionally sound meals to customers. Therefore, effective management can increase the health of the student body.
Student Learning	Effective management can also influence student learning, and the influence can be seen in two separate ways. One way is through the role campus dining services can play in learning about food. For a variety of well-documented reasons, the past few generations have not had the opportunity to learn about food and cooking. Schools can play a vital role in reversing this trend. Learning about food and cooking opens up a whole new way of thinking, of understanding where food comes from, how it shapes us, and our future, and the world around us (Jayne-Stanes 2004:18). Effective management on college campuses can help enhance learning by utilizing made-to-order food stations and exhibition-style cooking methods. Another way that management of campus dining services can affect student learning is by answering the demand for more portable meals. The emerging interactive pattern of learning-- outreach classes, service components to courses, and field trips are all helping to increase the demand for pre-packaged, portable meals (Parker 2000:65). Campus food services with effective managers will see the unmet student need and fill it. The rewards of this venture would be two-fold: consumer needs would be met, and campus food managers would increase their effectiveness and their revenues.
Campus Community	The last issue surrounding effective management and college operations is its impact on the campus community. Food Service is an integral part of bringing a sense of community together" (Pond 2002:26) and food contributes to holding communities together (Jayne-Stanes 2004:18). Food service managers can effectively increase the popularity of the campus community through their dining services. On a larger scale, there is also a trend that campuses are becoming more and more the center of community culture as a whole (Parker 2000). If this trend continues and effective management tactics are implemented, then the revenue and potential customer base would drastically increase for the entire campus. Another effective management tool for campus community promotion is the provision of more campus centers where students can enjoy multiple services including food and dining. In addition to utilizing services, campus centers are becoming great places to enhance the social structure of the campus community.

Table 2. Eating Habits of Dining Hall Customers

Date and Time of Event	Observation Content	Academic Interpretation
1/27/05 at 11:59 am	Several trays are left with uneaten food.	For an unknown reason, some diners do not finish all of their food.
1/27/05 at 12:30 pm	Observed 4 people visiting salad bar within 8 minutes.	Several students were interested in eating a salad for lunch.
2/3/05 at 11:42 am	People are taking their time while eating.	People are not in a hurry to finish meal and leave.
2/3/05 at 11:50 am	No one is eating stir-fry in main bar area.	Stir-fry was not a popular food item among diners on this particular day.
2/3/05 at 12:00 pm	Several students are observed making more than one trip to food bar.	Students like to eat: a) several portions or b) a variety of foods from bar.
2/3/05 at 12:08 pm	9 female and 2 males have fixed a salad at bar in the last 8 minutes, no one is at pasta bar.	Salad bar is a popular area. that diners eat from.
2/3/05 at 12:10 pm	Salad bar is very busy- now 4 people making salads.	Salad bar is a popular area.
2/3/05 at 12:19 pm	Several students have been eating pizza and tacos today.	Pizza and Tacos popular food item with students.
2/3/05 at 12:30 pm	For 45 min, (12:30-1:15 pm) only 7 new diners entered hall and they all ate from the main bar. No one used salad bar and they all had a variety of different foods.	Main entrees are also a busy area. Variety of foods here can offer something for every diner.
3/2/05 at 12:02 pm	6 students were observed eating at salad bar.	Salad bar is still very popular.
3/2/05 at 12:15 pm	Several students have returned to pizza line for second time.	Pizza bar is area students enjoy.
4/20/05 at 11:45 am	Lines are very long, but several people are on their second trip already.	Students like to eat more than one time- or portions are too small
4/20/05 at 11:50 am	Once again, pizza is very popular item- of 12 people sitting near me, 10 are eating pizza and 2 are eating chicken.	Pizza is a very popular choice for lunch.

Table 3. Observed Diner Structures

Demographic Classification	Number of Occasions Observed Specific Groups	Total Number of Specific Groups Observed during Research Period
Groups of (2-6) Students	5	72
Groups of Faculty	6	12
Students-Alone	5	12
Faculty-Alone	2	4
Student Groups-All Caucasian	7	31
Student Groups- All African-American	4	10
Student Groups- Mixed Ethnicity	5	53
Student Groups- All Males	4	20
Student Groups- All Females	5	23
Student Groups- Mixed Gender	7	46

Table 4. Food and Health Issues Observed in Dining Hall

Observations	Interpretations	Managerial Suggestions
Observed several students "scraping" the bottom of containers for various salad ingredients. Lettuce ran out at 12 pm on 2/3/05.	Customers might not get salad they want because ingredients are not replenished in a timely manner.	Have a check sheet that is required for staff members. Must check and replenish salad bar on set time schedule.
No employees were observed wiping off tables between groups of students or at any other times. Also, bars were not kept wiped off.	Unsanitary to not clean tables between groups of diners. Bars were not wiped off either and this is a major health concern. Also, dirty tables and bars are a deterrent to diners who are coming to eat.	Nominate one staff member to be solely responsible for cleaning the tables after diners. Also can be responsible for wiping off bars in spare time.
Observed several students returning to lines for the same foods either.	Certain foods are popular and students enjoy eating more of these foods. Also, due to smaller portion sizes many students return for second servings.	Consider giving larger portions of foods that food service management knows are popular. If students consistently return for seconds, then increase portions.
Observed students wiping wet plates off before they could take any food. Also, overheard students discussing problems with wet plates.	Wet plates cause diners to have to wipe them off. Also, diners are unhappy with wet plates.	Make sure plates have sufficient time to dry off before placing out for student use.
Observed only one employee wearing a head visor and none of the employees were wearing hair nets at any time during the observations.	Hair nets and/or visors are required in restaurants, therefore, should be required in dining hall. This is a health issue and may affect compliance with public health regulations and standards.	Place more emphasis on health and sanitation procedures. Require all employees to wear hairnets or visors when serving/fixing food. Also require gloves to be wore when handling food.

Table 5. Interviewee Demographic Data (n=37)

Category	Subcategory	Frequency (%)
Gender	Male	22 (59.5)
	Female	15 (40.5)
Student	Freshman	8 (21.6)
	Sophomore	9 (24.3)
	Junior	10 (27.0)
	Senior	9 (24.3)
Faculty	(n/a)	1 (2.7)
Ethnicity	Caucasian	21 (56.8)
	African-American	15 (40.5)
	Other	1 (2.7)

Table 6. Interview Results

Question	Top Results	Frequency
Three (3) good things food service should maintain	Pizza	12
	Dessert	10
	Sandwich Bar	9
	Salad Bar	7
Three (3) bad things food service should improve	Lack of Food Variety	26
	Lack of Food Quality	14
	Poor Service	9
	Dirty Dishes	7
Good experiences with food service	Socialization	10
	Midnight Breakfast	7
Bad experiences with food service	Got sick from food	8
	Food tastes bad	8
Improvements that can be made by management	Listen to students	15
	Staff behavior	7
	Food quality	6
	Food variety	6
Improvements that can be made by the college president	Hire new contractors	10
	Monthly Meeting to discuss problems	10
	Make changes according to student surveys	6

Table 7. Questionnaire Demographic Data

Category	Subcategory	Numbers/Frequency	Percentage
Dining Hall Usage	3x/day	63	49%
	Breakfast	15	12%
	Lunch	17	13%
	Dinner	14	11%
	Lunch and Dinner	14	11%
Use of Hall on Weekends	Yes	69	55%
	No	55	44%
Meal-Plans	Like it	16	13%
	Dislike it	76	59%
	Indifferent	36	28%

Table 8. Frequency of Likert Scale Answers in Questionnaire

Question Grouping	Average Percentage for Majority Answer	No. of People in Majority Percentage Answer	Highest Percentage for Individual Questions within each Grouping
Food service has a great impact on campus operations.	64% Agreed	81	77% agreed for great impact on student/college relationship
Food service quality is most important factor in college selection.	56% Disagreed	72	(N/A)
Food service has <u>no</u> impact on campus operations.	58% Disagreed	77	65% disagreed for no impact on college recruitment.
Food service quality is not a factor in college selection.	45% Disagreed	58	(N/A)
Food service has a positive impact on operations at the college.	43% Disagreed	54	47% disagreed that foodservice had positive impact on the reputation of the college.

Table 9. Attitudes and Opinions of Food Service Quality

Question	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
Food Service quality has great impact on learning morale.	25	55	29	14	5
Food Service quality has great impact on learning outcomes.	22	49	27	22	8
Food Service quality has a positive impact on learning morale.	10	28	34	42	14
Food Service quality has a positive impact on learning outcomes.	9	28	40	41	10
Food Service quality is most important factor in college selection.	8	28	20	48	24

Table 10. Attitudes Concerning Food Service

Question	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
Positively impacts college's reputation	5	34	29	42	18
Positively impacts student morale for learning	10	28	34	42	14
Positively impacts student learning outcomes	9	18	49	42	10

Table 11. Problem Areas and Managerial Recommendations

Effective Management Issue	Managerial Recommendation for Improvement
Primary customers, students, are not happy with the level of food service quality.	Place more emphasis with food-service staff on identifying and meeting the needs of the customer base.
The food lacks variety and quality.	Serve more sophisticated, diverse foods on a regular basis. The foods that meet with diner approval can be added to the menu.
Need to increase revenue and upgrade dining hall food systems.	Research the cost effectiveness of renovating or expanding the dining hall. Research new and innovative ways to keep diner dollars on campus
Negative Attitude from student customers with regards to food service on campus.	Work on a type of "goodwill" program to help repair relationship with student customers. Have monthly meeting to generate new ideas and solve old problems within the campus food service department.
Negative Impact of Food Service Management on College Operations	Need to work to improve relationship with student diners. Also, need to be creative in keeping up student interest in dining hall. Need to work with college to solve issue of meal-plans and lack of food variety for residential students.

Notes

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