

An Analysis of Student Perceptions of Foods 1 Course
at a Sampled Midwest High School

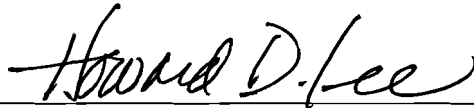
by

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A handwritten signature in black ink, reading "Howard D. Lee". The signature is written in a cursive style with a horizontal line underneath it.

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ABSTRACT

This study first researched the background of perceptions, Career and Technical Education electives, advantages of Career and Technical Education electives, and the importance of the Foods I course. The study also looked at other surveys that have dealt with student perceptions of Foods classes. Next, a survey was developed to analyze student's perceptions of the Foods I course at the sampled Midwest High School. The sampled high school is located in an urban district. The majority of students that attend this high school are from caucasian descent. The other races that attend make up less than 18% of the student population and include Asian, Black, American Indian, and Hispanic children. Most students that attend are situated in the middle to upper class, having only 17% account for the poverty level or lower classes. Less than 11% of students have learning disabilities. This high school offers a variety of advanced classes to its students varying from AP Calculus to AP Psychology courses. Foods I is an introductory foods

course which can be chosen as an elective by grades 9-12. Enrollment for this particular course is low, so the survey questions were directed to figure out possibilities why. Finally, conclusions were made on why enrollments are low and possible recommendations were made.

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Chapter I: Introduction

Background of the Problem

The transition of Home Economics to Family and Consumer Sciences Education (FCSE) provides the profession the opportunity to expand well beyond home care conceptualizations and embrace the continually shifting environment, technologically and socially. Unfortunately the degree of this change has not been appreciated. This lack of understanding and miscommunication of and about the field delays its growth, thereby limiting its potential. Of more concern, the need for awareness prevents others from exploring the opportunities provided by and within the profession. Clarity in communicating the distinction of the historic perceptions of FCSE (Home Economics) and the new direction of Family and Consumer Sciences Education has and will continue to gain appreciation and interest in the field. Educators in the food sciences may need to not only educate students in the class content, but also to communicate the understanding of the profession to potential students and appeal to the possibilities Family and Consumer Sciences Education can provide.

Home Economics is the theory and practice of homemaking; more clearly defined as “the science and art of home management” (Merriam-Webster, 1994, p. 554). Family and Consumer Sciences Education (FCSE) is defined as

an academic discipline which combines aspects of consumer science, nutrition, cooking, parenting, and human development, interior decoration, textiles, family economics and resource management as well as other related subjects. Family and Consumer Sciences Education combine social science, including it's emphasis on the well-being of families, individuals and communities and natural science with its emphasis on nutrition and textile science. (Wikipedia, n.d., n.p.)

As defined, it is apparent the change from Home Ec. to FCSE encompasses much more than a title change. Though a major focus of FCSE is still the family, the approach in which family is addressed has changed (Blassingame, 1999). To understand the difference, one must appreciate the origin in which each was developed.

The Home Economics/Family Consumer Sciences Education name change reflects the dramatic economic and social transformations in the American home life during the last 100 years. While FCSE remains focused on topics related to family well-being, its course offerings and research activities address a continually shifting environment. Tasks such as canning or dressmaking, once crucial to maintaining the home and family lifestyle, have been replaced by microwaving and online shopping. This transition captures lifestyle elements of the current student and fosters an all-encompassing learning environment to develop veracity and ethical behavior to be used in the home, at work, and with the family.

Today Family and Consumer Sciences Education is taught nationwide and prepares many students for balancing family with the workforce (Browne, 2006). As many more women are entering the workforce creating, more often than not, dual-working households family, values and goals have evolved from what was taught in Home Economics (Thaler-Carter, 2000). FCSE addresses these changing times by teaching students how to balance work and family versus choosing one or the other. Family and Consumer Sciences Education also attends to values of the home such as honesty, kindness, responsibility, and trustworthiness by guiding students to understand these values and how they can be applied (Richards, 2005). In an age where choice and pressure are plentiful, reiterating these family values allow students the experience to assess a situation and make value-based decisions (Bowers, 1996). By encouraging and educating

values in the classroom integrity becomes a habit to students who embed these practices on to the next generation (Richards, 2005).

Technology has influenced change in Family and Consumer Sciences Education. FCSE has a focus on career pathways and community services. School career and technical studies focused on the ability to do things in a set procedure. Now, incorporating the new workplace, a person needs to be able to read and make sense of a whole range of problems and projects (Olson, 2006). Real life situations through co-op programs can educate students to be prepared in work settings at an earlier age in life (Scott & Sarkees-Wircenski, 2004). Employability skills and work ethics play an important role overall (Thaler-Carter, 2000). Laboratory experiences have also been changed from improving family life to decision making, critical thinking, and managing family resources. In the classroom, there is more theory, discussion, and planning. Students do activities that will enhance learning (Blassingame, 1999).

The success and progression of Family and Consumer Sciences Education is inspiring and remains continuous. The positive aspects of FCSE, such as community connections, self-esteem, working environment, etc., contribute to Career and Technical Education and promote post-secondary CTE. Because of the vigorous careers and other opportunities available, FCSE helps develop core knowledge and skills while motivating students toward reaching their future goals.

High school is an ideal platform for allowing students to explore different facets of learning to begin to discover what they may be interested in for the future. The sampled Midwest high school provides an array of classes for students from which to choose. Students actively pursuing a four-year diploma can take Advanced Placement classes to better prepare them for their continuing education experience. Students interested in drama or other fine arts involve

themselves in choir, band, orchestra, school plays, etc. Also, new to the high school, students can sign-up for Career Academies, such as Business, Health and Human Service, or Graphic Design to gain further appreciation for the specified field of interest (ANHS website, n.d.).

Scott and Sarkees-Wircenski (2004) interviewed a family in regards to their teenage son's future. The article highlights the boy having an interest in taking an Introduction to Foods course during high school. Unfortunately, his parents found the course to be a waste of time and wanted their son to focus on classes that prepared him for college. These parents are not educated on the diversity, life skills, problem solving, nutrition, etc. lessons which their child would benefit from if enrolling in the class. The article illustrates how uninformed the general public is on the purpose and benefits of Family and Consumer Sciences Education courses (Scott & Sarkees-Wircenski, 2004). Though there has been extreme progression from the Home Economics classes of latter day, the lack of communication on the field and the opportunities it presents poses folks to be hesitant to become involved.

Foods I provides an opportunity to look at personal food choices and habits. Instruction includes units in meal planning, cost control, safety and sanitation, and preparing regional and international foods. There is a main emphasis on nutrition and healthy eating habits throughout the year. Statistics within the last five years of Foods I at the sampled Midwest high school have remained at a steady low. Ten years ago, Foods I had 45 students enrolled equaling two sections offered to the students. In 1998, Foods I had a drop in enrollment to 39 students. Since then, the enrollment has been 36-50 students enrolled each year (D. Pynenberg, personal communication, September 16th, 2007). At this point, there has not been a program committee formed which can involve the food industry as well. Foods I does have guest speakers come in, but leaves room to

have more connection with area businesses. This course is articulated with the required junior high level, so students are exposed the Foods curriculum at an earlier age.

Statement of the Problem

With various elective courses offered at the sampled Midwest high school, the Foods I course has experienced low enrollments. Priorities and perceptions may tend to inhibit enrollment in the Foods I course at the sampled Midwest high school.

Purpose of the Study

The purpose of this study is to identify the perceptions of students enrolled in Foods I at the sampled Midwest high school. Students will be surveyed in March of 2008.

Research Questions

This study addresses the following questions:

1. What are the perceptions of students enrolled in Foods I about the curriculum?
2. What are the differences in perceptions of students enrolled in Foods I courses based on a foods career choice versus another career?
3. What are the differences in perceptions of students enrolled in Foods I course based on age levels (ages 13-18)?
4. What are the differences in perceptions based of students enrolled in Foods I course based on grade levels (grades 9-12)?
5. What are ways to increase enrollment of Foods I at the sampled Midwest high school?

Importance of Study

This study is important for any Introduction to Foods teacher. Because many FCSE teachers struggle with classroom enrollment, knowing the perceptions of why students take or do not take classes is significant. Perceptions of a particular class can make or break a program. If

a perception is negative, teachers can focus on ways to improve or possibly change the student's outlook. This study is important because:

1. The sampled Midwest high school can use this data for other elective classes that are struggling with enrollment. Once research has been accumulated based on current enrolled classes, age, and grade level, teachers can have a better understanding of how to meet needs. This could also aid in possible recruitment strategies.
2. The sampled school district can use the information in staff development meetings. Knowing perceptions as a whole can change any discipline. In staff development, staff members can brainstorm ideas to assist in their content's perceptions.
3. Family and Consumer Sciences Education as a whole will be able to utilize this information. This topic is a common question asked about all of the courses taught through Family and Consumer Sciences Education. Knowing perceptions can increase the probability that Foods I can be shaped and changed which may affect enrollment.

Limitations of the Study

Possible limitations to this study are:

1. Answers to the survey may not be completely truthful. Surveying students can always come to the conclusion of reliability. Students could answer the questions based on what they feel the teacher wants to hear, or could answer them based on a particular attitude in that given time period. For example, students would write something in the case that the teacher would figure out who wrote the comment. Students may have a fear of writing something hurtful, yet truthful, in case the teacher knows where it came from.
2. The number of responses can also be a limitation. With over 1900 students at the sampled Midwest high school, only about 100 students will be surveyed.

Definition of terms

The study used the following terms as defined below:

Career Academy – “Integrated curriculum and instructional activities that allow the student to preview the academy professions within smaller, cohesive personalized learning environments” (Appleton North HS website, n.d., n.p.).

Co-op – “Classroom instruction includes units on career decision making, selecting the appropriate post-secondary educational/training option, money management and personal finance, job related skill competitions, problem solving about on-the-job situations and tips on how to get the job you really want. On-the-job training is offered for pay with classroom instruction related to the student’s training station” (Appleton North HS website, n.d., n.p.).

Electives - Classes that are offered, but not required in high school (Dugger, 2007).

Ethical behavior - Involving or expressing moral approval or disapproval (Merriam-Webster, 1994, p. 398).

Family and Consumer Sciences Education (FCSE) – “Empowers students to manage the challenges of living and working in a diverse global society. Students are prepared to improve the global society through its life span perspective with an applied integrative focus on individual and family development, nutrition, health, consumer and financial affairs, as well as fashion and design concepts” (Appleton North HS website, n.d., n.p.).

Home Economics - Traditional or technical science-based curriculum model which emphasizes homemaking, sewing skills and cooking (Montgomery, 2006).

Perceptions - A mental image, observation (Merriam-Webster, 1994, p. 861).

Veracity - Power of conveying or perceiving truth (Merriam-Webster, 1994, p. 1311).

Vigorous - Mental strength, coping with the arduous or the challenging, a capacity for intense activity (Merriam-Webster, 1994, p. 1317).

Chapter II: Review of Literature

Introduction

The purpose of this study was to analyze the perceptions of Foods I students at a sampled Midwest high school. This chapter will cover where perceptions of Career and Technical Education (CTE) can originate. In addition, CTE electives and the advantages of CTE electives will be considered. Finally, the chapter will conclude with the importance of foods courses in the high school setting.

Perceptions

Perceptions play a major role in education. First of all, the students can create a perception based on interests. For example, if a student is interested in business and administration, his/her perceptions about agriculture will be much different than a student who has an agriculture background and emphasis.

Influences also play a role on perceptions. Students follow parents' and peers' advice when registering and choosing electives. According to the Gaunt and Palmer study, 73% of students say they are influenced by friends, 61% of the surveyed students listen to their parents, while only 30% of them would listen to a teacher's suggestions when choosing classes (Gaunt & Palmer, 2005). If parents view a program as educational, students and parents will easily accept it as an option (Reese, 2001). Parents can agree that getting children interested in learning is a main goal (Reese, 2001). When perceptions are negative, students can be swayed in a different direction from their parents. Peers can also influence a student's perception. Students follow other students and enjoy having friends in classes. Students do not want to leave their friends behind and spend their day away from them (Gaunt & Palmer, 2005). When students as a whole understand CTE and the benefits from taking a course, enrollment will go up (Reese, 2001).

Experiences may also influence perceptions of CTE classes. FCSE is a required course at the middle school level at the sampled Midwest high school. If a student has a bad experience at the middle school level, he/she will be reluctant to enroll in this elective at the high school level. If the student really enjoyed and was inspired by his/her teacher at the middle school level, this student will more likely be drawn to a class at a higher level. Students also face many electives when coming into a high school setting. A particular student may be interested in many different areas of study. Students can only fit in so many electives. For example, a student may be interested in music, so he joins band. He may be interested in going to a college that requires a foreign language. After enrolling in these two courses alone, students find it hard to fit in another elective; especially in his/her first couple years when schedules are filled with required courses.

Perceptions can also be based on the knowledge you have of something. Gaunt and Palmer stated that CTE has an image problem due to the perception that it provides poor quality education for the worst students (Gaunt & Palmer, 2005). According to their study, non-CTE students perceived CTE as prep for the military, a class that potentially is for low ability levels, and may have discipline problems (Gaunt & Palmer, 2005).

Finally, incentives of taking the course can alter a person's perception. Incentives such as earning college credits after completing the course, having time away from the school day for work release, or even field trips the class will be taking can alter a perception and aid a student in choosing a particular class (Gaunt & Palmer, 2005). When students know of classroom incentives, the class seems very tempting if it falls into their interests. For example, students can take classes in high school that will eventually equal college credit. Knowing the credits are free, students know the benefits of taking the course and enroll for the profit.

Career and Technical Education Electives

According to the Association for Career and Technical Education (ACTE), Career and Technical Education is defined as:

Career and technical education covers a variety of challenging fields in diverse subject areas which are constantly evolving due to the changing global economy. Some of the career areas that students may enter through career and technical education include:

Agriculture (farmers, animal scientists, turf grass specialists); Trade and Industrial (automotive technicians, carpenters, electricians); Business and Marketing (entrepreneurs, financial officers, arts/graphics designers); Family and Consumer Sciences (management and life skills, executive chefs, hotel managers); Health Occupations (nurses, physical therapists, biomedical engineers); Public Safety and Security (EMTs, emergency management and response coordinators); and Technology (3D animator, computer engineer, biotechnical engineer). (ACTE website, n.d., n.p.)

CTE is appropriate for all students. Practical experiences are demonstrated in any CTE class. In an article by Michael Stone, he quoted Tom Vander Ark from the Bill and Melinda Gates Foundation. Vander Ark stated:

All students entering high school today, one-third don't graduate, one-third graduate but are unprepared for a "family wage job" or postsecondary education, and one-third are doing pretty well. The debate has reached two points. One, even college kids should be employable. Too often book learning is not connected to real-world savvy and two, even non-college-bound students should leave high school work-ready and prepared for further learning. (cited in Stone, 2007, p. 45)

Stone continued to discuss the importance and relevance of CTE. The economy will be fed by students leaving the CTE programs. Jobs that require CTE degrees will increase by 16.2%.

These are jobs that “build things and fix things; not only machines, computers, cars and houses, but also what we eat and how we care for ourselves and our children” (Stone, 2007, p. 44). All of these jobs are filled by Career and Technical Education.

CTE classes are very accessible as well. Because CTE and FCSE connect class and the workplace, a person needs to be able to read and make sense of a whole range of problems and projects and relate it to his/her future career (Olson, 2006). Real life situations through co-op programs can educate students to be prepared in work settings at an earlier age in life (Scott & Sarkees-Wircenski, 2004). Co-op prepares students for problem solving, safety, leadership, and hands-on experiences. Whichever position the students choose to work for, technology will play an important role of preparing the students for their future. For example, currently at the sampled Midwest high school, a student is working for a company that builds roads and highways. Being able to experience the technology (machinery and equipment) at a young age is invaluable.

Laboratory experiences have aided in improving family life, decision making, critical thinking, and managing family resources. The Child Development course at the sampled Midwest high school creates a preschool for 20 toddlers to come in and participate in activities that simulates a real daycare setting. By using computer software, the students can pre-plan and construct what the daycare will have in store. In the FCSE classroom, there is more theory, discussion, and planning than a class not geared towards technical education. Students do activities that enhance learning for their future (Blassingame, 1999).

Family and Consumer Science Education present many strong aspects in their classes. By taking an FCSE class, students will develop veracity and ethical behavior and use them at home, at work, and within the family (Blassingame, 1999). Formerly known as Home Economics, FCSE has similar subject matter, but has adapted because of today's technology. Technology has produced a change for FCSE. FCSE has a focus on career pathways and community services. Career Pathways have been defined as:

In their simplest forms, Pathways are sub-groupings of occupations/career specialties used as an organizing tool for curriculum design and instruction. Occupations/career specialties are grouped into Pathways based on the fact that they require a set of common knowledge and skills for career success (CareerClusters.org, n.d., n.p.).

One career pathway in particular is the Health Occupations field. This will incorporate trends in the health care profession, identify levels of training, experience first-hand particular services such as diagnostic and therapeutic, and use practical reasoning with the information.

The Foods I course at the sampled Midwest high school consists of five objectives. The first objective is an exploration of food attitudes which has the students explain food differences within individuals, family & society, determine personal food attitudes, examine the process of learning food attitude likes/dislikes, examine the process of changing food attitudes, and evaluate food attitudes for their healthful/harmful consequences. The second objective is evaluating food choices which examines factors that influence personal food choices, explains nutritional information, describes how food satisfies basic human needs, and prioritizes healthy and non-healthy foods. The third objective has the students examine food related concerns by investigating local hunger concerns, examine perspectives about food safety concerns in food preparation, recommend courses of action to address food related concerns, identify current food

related concerns, and compare and contrast past, present, and future food related concerns. The fourth objective has students compare eating patterns by classifying foods into U.S. regions, distinguishing healthy vs. non-healthy eating patterns, defining diet and eating patterns, evaluating information and sources of information, and applies critical thinking strategies. Finally, the fifth objective is applying decision making and resource planning skills which includes preparing a variety of foods according to resource management principles, utilizing technology and equipment in food preparation, creates strategies for success, identifies values and goals, and explores technology resources (Appleton North HS website, n.d., n.p.).

Advantages of CTE

In general, CTE has proven to be practical in students' lives. But, there is so much more to CTE than practicality. CTE offers experience and proficiency (Bray, 2007). If students use the excuse that they need to take a college prep course for academics, it is not necessarily true. CTE can prepare a student in the exact same way as a core area. Many times, it could be a greater benefit because much of CTE content is taught in a lab base with hands-on activities.

CTE offers a great link between secondary and post-secondary. With diversity in gender, age, and background, the students all find the commonality of one goal. The students know to find a link to their future employment opportunities (Hyslop, 2008). CTE is practical in the way that students use what they learn from high school.

Soft skills are another advantage that comes from a CTE class. Historically, soft skills have been less important, but in today's fast paced society, soft skills are needed more than ever (Bancino & Zevalkink, 2007). Wikipedia defined soft skills as "the cluster of personality traits, social graces, facility with language, personal habits, friendliness, and optimism that mark people to varying degrees. Soft skills complement hard skills, which are the technical requirements for

a job” (Wikipedia, n.d., n.p.). According to Bancino and Zevalkini, soft skills are needed for improvements within the workplace, to increase competition with other companies, and globalization (Bancino & Zevalkink, 2007). Communication is a soft skill that is incorporated into any CTE class. Communication can be demonstrated through many different learning activities. Face-to-face communication can be verified through a classroom demonstration on how to prepare a particular foods technique. Nonverbal skills and active listening can be taught by watching a demonstration or by following a recipe. Writing skills are shown through evaluations and reflections of particular lab experiences. Finally, presentations can be integrated into almost any unit in the classroom (Bancino & Zevalkink, 2007). Soft skills are needed everywhere in the 21st century workplace. CTE also prepares students to be leaders. White stated CTE is emerging as a leader in educational reform because students graduate with the skills and career direction they need to support our economy (White, 2008). Students are trained for not only individual success, but as leaders. CTE trains with focuses on career pathways, teamwork, and collaboration, as well as all of the aspects to accompany soft skills (White, 2008).

Importance of Foods Courses

Training in the culinary, baking, and pastry fields are more popular now than ever before (Frei, 2008). For a student interested in a culinary career, foods classes at the high school level are a great stepping point into this experience. According to Frei, the last 10 years have had an explosion of cooking programs at career and community colleges. This has created a competitive marketplace for students in the field (Frei, 2008). There are over 600 post-secondary culinary programs currently operating in the US (Frei, 2008). Each student going into this program will need to have an edge on the other students enrolled (Frei, 2008). By taking a foods course in high school, the students will have the background knowledge to get started, the

confidence in the kitchen, and the skills to succeed. For students not interested in the culinary profession, the class can still give the students life skills to take outside of the classroom, especially once they move away from home. Skills such as math, problem solving, and soft skills are just a few that can be obtained by taking a foods course. Foods classes are also great for the hands-on learners. Lab settings provide an environment that has much more adaptability than a textbook or note taking.

Research Studies on Student Perspectives

Studies on CTE and FCSE are very scarce (Bray, 2008). Janet Bray, the ACTE Executive Director, states CTE is misunderstood because of the lack of data. Perceptions of CTE are looked at as staying the same and not making any innovative adjustments. Bray recommends collecting and sharing data to benefit CTE and tell the correct story about all that CTE has to offer (Bray, 2008).

One study conducted by Judy Karen Brown from Bob Jones High School in Madison, AL, indicated that culinary arts are one of the largest, fastest growing industries worldwide. The study encouraged Brown to design a state-of-the-art culinary program. She too wanted to research perceptions so she could understand how to enhance career awareness, broaden educational opportunities, and develop skills required for the workplace. She designed her program to enhance career awareness through hands on settings and labs, broaden educational opportunities by team teaching with other courses such as biology, and develop skills required for the workplace through job training at school functions. Because she surveyed students perceptions, she was able to experiment and produce a program to change the negative perceptions and build a program that became one of the most successful in her school (Brown, 2005).

Another study has focused on a foods program Mise-en-Place Culinary Skills Program in St. Paul MN. This study surveyed students perceptions of the importance of the basic culinary skills, such as reading a recipe, equipment identification, and job skills. Students in this survey have intent to go into the culinary field and were asked their perceptions based on a 5-point Likert scale. The students surveyed felt basic culinary skills are very important. The recommendations of this study included expanding the program to fully teach all of the important aspects of culinary skills (Carrier, 1999).

Marketing classes is an issue on a daily basis in CTE. Being an elective, classes need to be advertised in order to have enrollment. The CTE Center at the Oneida-Herkimer-Madison Board of Cooperative Educational Services conducted a survey of student perceptions. The goal was to find out what students know about CTE, attitudes towards it, and how they receive information that influences perceptions. Sixty percent of the students surveyed said CTE was designed to serve students who plan to go on to college and 70% said CTE serves students of all ability levels (Palmer, 2007). As far as influences of taking the CTE course, 44% said friends were a major influence (Palmer, 2007). Overall, the survey concluded that students are the audience to get the message to. By keeping up with how students obtain information and influences will keep CTE in place (Palmer, 2007).

CTE also has different perceptions coming from a school with high test scores and advanced placement classes (Reese, 2001). Very familiar to the sampled Midwest high school, Fairfax County, VA struggled with perceptions. A 13-month study concluded with the school having to start an academy program. Once academies were formed, students started to become familiar with programs. Incentives such as scholarships encourage students to become active in

CTE as well. The Chantilly Academy in Fairfax County alone gave \$624,000 in scholarships (Reese, 2001).

Summary

In summary, regardless of the amount of information on career and technical education's offerings and the advantages of the classes, the question still remains about perceptions of a foods course. Students enrolled in a culinary program at the post-secondary level feel it is important to have a foods course and perceive foods classes to be positive. What electives offered may play a role, but identifying particular perceptions will be important.

Chapter III: Methodology

Introduction

Students' perceptions are the key to large enrollment in elective classes. In order to analyze perceptions, students were surveyed in a Foods I course at a sampled Midwest high school. This chapter will include the description of the sample, the instrument used to survey the students, the data collection procedure, and the data analysis method. The chapter will conclude with the limitations of the study.

Selection and Description of Sample

Figuring out what the perceptions of students currently in the Foods I course was the main objective. The sampled Midwest high school is located in an urban district. The majority of students that attend the high school are from caucasian descent. The other races that attend make up less than 18% of the student population and include Asian, Black, American Indian, and Hispanic children. Most students that attend are situated in the middle to upper class, having only 17% account for the poverty level or lower classes. Less than 11% of students have learning disabilities. The sampled Midwest high school offers a variety of advanced classes to its students varying from AP Calculus to AP Psychology courses. The sampled high school typically has students that continue on to receive a four-year degree.

The FCSE department had three full-time teachers. Total, there were approximately 455 students enrolled in an FCSE class. In total, four different sections of the Foods I course were surveyed during the second semester of 2008. The four sections were all taught by the same instructor, so the course material and assessments were all the same. All students were surveyed during class time, so in the end, the students were clustered by section. The population of the four sections equal 84 students. Of the 84 surveys distributed, 40% (n=34) were male and 60%

(n=50) were female. The students' grade levels varied. Fourteen percent (n=12) were freshmen, 36% (n=29) were sophomores, 27% (n=23) were juniors, and 23% (n=20) were seniors.

Instrumentation

The survey was designed to be convenient for the student and would only take about five minutes to fill in the answers. The survey was compiled into questions that fit the Likert scale format. These questions were written to reflect the research questions in Chapter I. There were a total of nine questions including the questions dealing with demographics. One goal of the study was to find out why students took Foods I as an elective. Possible reasons include an easy elective, the student enjoys eating, or the student has an interest in foods. In addition, questions were asked about course content and whether or not the content will help them with their future career. Finally, questions were asked about lab activity content, the classroom environment, and classroom management.

Because there hasn't been a survey of this nature before, the survey was originally designed by the researcher. The survey originally started with 5 reflection questions. Because reflection questions are difficult to measure, the survey was re-written. The second survey written included the same 5 questions, but incorporated possible answers to the questions. With this survey, the students were to circle items they agreed with. Finally, the third survey was constructed. This survey followed a Likert scale format where students would strongly agree, agree, be undecided, disagree, or strongly disagree. This survey was used so collecting data would be straight forward. The validity and reliability may be hard to measure due to the survey being directed for this study only. The survey was approved by the UW-Stout Institutional Review Board prior to data collection. A pilot survey was not conducted, but the survey was reviewed by peers at the Midwest high school. A copy of the survey is located in Appendix A.

Data Collection

Foods I is a one credit course that meets once a day for a full school year. The data was collected in May of 2008 with the school year ending in a month. The four sections were taught by the same instructor, so she distributed the surveys during their allotted class time. Students in the Foods I course have evaluated course content by taking a survey, so the students are familiar with the reflection questions. Once the surveys were passed out, all students were informed not to put their names on the top and to leave it confidential. If their names were on the top, the survey was thrown out. Students were also informed that the survey was an instrument tool to analyze perceptions of Foods students and that they should try to answer the questions as honest as possible. In addition, the students were told that it was a voluntary process. The students were told that the survey would only take about five minutes to complete. They were given the appropriate amount of time and if they needed more than five minutes, it was given to them.

Data Analysis

The survey was written in a Likert scale format. The data was separated by each class section to make conclusions from each class period. The data was analyzed by the surveyor. All answers were read through and tallied. The tally list was compiled of positive and negative perceptions, which were based on the answers given by the students. The results were reported in Chapter IV: Data Analysis.

Limitations

A possible limitation to the study is one out of four high schools in the sampled Midwest school district were surveyed. Diverse interests could be a main factor between the four different schools which could cause low enrollment in an elective at one school, but high enrollment in the same elective at another school.

A second limitation could be the number of students surveyed. In a school of 1900, 4% of that population was sampled. Even if a student is not enrolled in Foods I now, he/she may have been in past years. These students also have perceptions about the course and could have valuable input.

Third, the survey only included students currently enrolled in Foods I during the 2007-2008 school year. As mentioned before, students who have taken Foods I in the past may have a strong opinion about what they have experienced. This data could also be effective to add into the results.

Summary

In summary, the survey was given by the same instructor of all four sections on the same day. Out of each section, the students were given the opportunity to either take the survey or turn the survey in blank. The survey was confidential and the information from the surveys was analyzed and used for this research paper only.

Chapter IV: Data Analysis

Introduction

The purpose of this study was to analyze the perceptions of Foods I students at a sampled Midwest high school. This chapter will include the results of the given survey. Surveys were reviewed and demographic information was calculated. The chapter will conclude with item analysis of the research and analysis of the research questions stated in Chapter 1.

Demographic Information

The purpose of the demographic information was to find out exactly who was taking the survey. Of the 84 students in the four different Foods I sections, 68 completed the survey. For each class hour, hour one had 25% (n=17) of the results, 29.4% (n=20) were in third hour, 20.6% (n=14) were in fourth hour, and 25% (n=17) were in the sixth hour class. See Table 1:

Breakdown of Students by Section

Table 1

Breakdown of Students by Section

Section	Number of Students	Percent
1	17	25.0%
3	20	29.4%
4	14	20.6%
6	17	25.0%
Total	68	100.0%

Of the four sections, 16.2% (n=11) were freshman, 36.8% (n=25) were sophomores, 27.9% (n=19) were juniors, and 19.1% (n=13) were seniors. See Table 2: Breakdown of Students by Grade Level.

Table 2: Breakdown of Students by Grade Level

Grade Level	Number of Students	Percent
9	11	16.2%
10	25	36.8%
11	19	27.9%
12	13	19.1%
Total	68	100.0%

Overall, 58.8% (n=40) were female and 41.2% (n=28) were male. See Table 3:

Breakdown of Gender.

Table 3: Breakdown of Gender

Gender	Number of Students	Percent
Male	28	41.2%
Female	40	58.8%
Total	68	100.0%

Item Analysis

Question number five was the first question the students answered as an opinion. This question dealt with content in the classroom and is displayed in Table 4: Responses to Classroom Content. When asked if students enjoyed Foods class lessons, over 86% of the students agreed or strongly agreed. Over 85% of the students responded they could apply what they are learning in Foods class to their future. Only 31% agreed or strongly agreed that Foods could apply to their future career, but 35% were undecided. When asked if Foods topics were not important, 60% of the students disagreed or strongly disagreed. The students were asked if the Foods information is up-to-date and all of the surveyed students strongly agreed, agreed, or were undecided. Finally, the lessons in Foods have interested 23% of the students to go into the culinary profession.

Table 4: Responses to Classroom Content

Question	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
I really enjoy Foods class lessons	0 0%	1 1.5%	8 11.8%	39 57.4%	20 29.4%
I can apply what I learn to my future	0 0%	1 1.5%	9 13.2%	33 48.5%	25 36.8%
What I am learning can apply to my career	3 4.4%	19 27.9%	24 35.3%	12 17.6%	10 14.7%
Foods topics are not important	15 22.1%	26 38.2%	15 22.1%	10 14.7%	2 2.9%
Food information is up-to-date	0 0%	0 0%	17 25%	30 44.1%	21 30.9%
The lessons have interested me in going into a culinary profession	4 5.9%	16 23.5%	32 47.1%	9 13.2%	7 10.3%

Question six contained questions regarding lab activities. This data is displayed in Table 5: Responses to Lab Activities. When the students were asked if the lab activities reinforced the lessons taught, over 90% of them agreed or strongly agreed. Over 93% of the students also enjoy the lab activities chosen in the class. When asked if the students had enough time in the lab, over 80% of the students agreed or strongly agreed enough time was given. Again, over 80% of the students agreed or strongly agreed they will be able to apply the lab activities to life after high school. Only 10.3% believed the lab activities were not easy. Finally, over three-fourths of the students were satisfied with the amount of labs in the classroom.

Table 5: Responses to Lab Activities

Question	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
The lab activities reinforce the lessons taught	1 1.5%	0 0%	4 5.9%	37 54.4%	26 38.2%
The lab activities are enjoyable/I enjoy preparing food	1 1.5%	0 0%	3 4.4%	26 38.2%	38 55.9%
I am given enough time to finish each lab	1 1.5%	3 4.4%	9 13.2%	37 54.4%	18 26.5%
I will be able to apply the lab activities after high school	0 0%	2 2.9%	11 16.2%	32 47.1%	23 33.8%
Lab activities are easy	0 0%	7 10.3%	22 32.4%	19 27.9%	20 29.4%
I am satisfied with the amount of labs	1 1.5%	5 7.4%	8 11.8%	36 52.9%	18 26.5%

Question seven asked the students why they chose to take Foods I. This data is found in Table 6: Responses to Reasons for Taking the Class. When asked if taken because is it an easy elective, 42% agreed or strongly agreed. Over 58% of the students took it because they were interested in Foods or it is part of their career preparation. When asked if they like to eat, 82% agreed or strongly agreed. When asked about outside influences, only 20% agreed or strongly agreed they took it because of friends, only 11% took it because parents recommended it, and only 8% took it because the guidance counselor suggested it.

Table 6: Responses to Reasons for Taking the Class

Question	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Easy elective	4 5.9%	19 27.9%	16 23.5%	20 29.4%	9 13.2%
Interested in Foods/ Career Preparation	3 4.4%	10 14.7%	13 19.1%	23 33.8%	18 26.5%
I like to eat	2 2.9%	5 7.4%	5 7.4%	24 35.3%	32 47.1%
My friends took it	18 26.5%	22 32.4%	14 20.6%	13 19.1%	1 1.5%
My parents recommended me to take it	29 42.6%	21 30.9%	10 14.7%	7 10.3%	1 1.5%
My guidance counselor suggested it	34 50.0%	17 25.0%	11 16.2%	5 7.4%	1 1.5%

Table 7: Responses to Environment contains data for question eight which asked about the classroom environment. Over 83% of the students agreed or strongly agreed the classroom environment is comfortable. When asked if the class is exciting, a little over 80% agreed or strongly agreed. Only two students of the 68 surveyed disagreed to enjoying coming to class, stating the instructor is respectful, and recommending this to another student. Finally, over 90% of the students are satisfied with what they have learned.

Table 7: Responses to Environment

Question	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
The classroom environment is comfortable	1 1.5%	4 5.9%	6 8.8%	31 45.6%	26 38.2%
The class is exciting	0 0%	1 1.5%	12 17.6%	34 50%	21 30.9%
I enjoy coming to class everyday	0 0%	2 2.9%	15 22.1%	25 36.8%	26 38.2%
The instructor is respectful	0 0%	2 2.9%	9 13.2%	20 29.4%	37 54.4%
I would recommend this class to another student	0 0%	2 2.9%	7 10.3%	25 36.8%	34 50%
I am satisfied with what I have learned	0 0%	1 1.5%	5 7.4%	35 51.5%	27 39.7%

Finally, Table 8: Responses to Classroom Management, contains data from question nine which asked the students about classroom management. When asked if the instructor treats the students with respect and discipline is fair in the classroom, over 86% agreed or strongly agreed. Students were asked if the classroom has a lot of downtime (meaning time spent on other items than Foods I). This answer was even throughout with 27.9% disagreed, 42.6% undecided, and 25% agreed or strongly agreed. Over three-quarters felt the class is orderly and well maintained and over 89% felt the labs were always structured and organized. Finally, Over 92% agreed or strongly agreed that the labs were well prepared by the instructor and all of the materials were available.

Table 8: Responses to Classroom Management

Question	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
I am treated with respect	0 0%	2 2.9%	7 10.3%	27 39.7%	32 47.1%
Discipline is fair in the classroom	0 0%	2 2.9%	6 8.8%	33 48.5%	27 39.7%
The class has a lot of down time	2 2.9%	19 27.9%	29 42.6%	16 23.5%	2 2.9%
The class is orderly and well maintained	0 0%	0 0%	10 14.7%	38 55.9%	20 29.4%
The labs are always structured and organized	0 0%	1 1.5%	7 10.3%	33 48.5%	27 39.7%
Labs are well prepared by the instructor and all of our materials are available	0 0%	0 0%	5 7.4%	31 45.6%	32 47.1%

Each question was broken down into statistics of Mean, Standard Deviation, and ANOVA Tests. ANOVA tests were run to see if there were relations between grade levels perceptions. ANOVA statistical significance was tested using an F test. If the composite score from the ANOVA test was less than .05, then conclusions for the question are statistically significant. If the composite score are greater than or equal to .05, then conclusions are not statistically significant. This data can be found in Table 9: Mean, Standard Deviation, and ANOVA Test.

Table 9: Mean, Standard Deviation, and ANOVA Test

Question	Mean	Standard Deviation	ANOVA (Composite)
5a	4.15	.675	Significance=.672
5b	4.21	.724	
5c	3.10	1.108	
5d	2.38	1.079	
5e	4.06	.751	
5f	2.99	1.015	
6a	4.28	.709	Significance=.492
6b	4.47	.722	
6c	4.00	.846	
6d	4.12	.783	
6e	3.76	.994	
6f	3.96	.905	
8a	4.13	.913	Significance=.634
8b	4.10	.736	
8c	4.10	.849	
8d	4.35	.824	
8e	4.34	.784	
8f	4.29	.670	
9a	4.31	.778	Significance=.693
9b	4.25	.741	
9c	2.96	.871	
9d	4.15	.653	
9e	4.26	.704	
9f	4.40	.626	

Summary

In summary, the results were reviewed, calculated, and analyzed. The demographic information was included to let the reader know who was included in the survey. The data was displayed in Tables 1-3. Item analysis of each opinionated question was broken down in to

Tables 4-8. Mean, standard deviation, and ANOVA statistics for each question was displayed in Table 9: Mean, Standard Deviation, and ANOVA Test.

Chapter V: Summary, Conclusions, and Recommendations

The purpose of this study was to analyze perceptions of students in Foods I at a sampled Midwest high school. In chapter five, discussion about past studies versus the analysis of the Foods I students at a sampled Midwest high school will be included. Chapter five will also include the analysis of the research questions found in Chapter I: Introduction because of conclusions drawn from the statistics of the survey. Finally, the chapter will conclude with recommendations for further study, recommendations for FCSE and CTE, and recommendations to Foods I teachers.

Summary

The survey was designed to be convenient for the student and would only take about five minutes to fill in the answers. This survey followed a Likert scale format where students would strongly agree, agree, be undecided, disagree, or strongly disagree. This survey was used so collecting data would be straight forward. The data was collected in May of 2008 with the school year ending in a month. Once the surveys were passed out, all students were informed not to put their names on the top and to leave it confidential. If their names were on the top, the survey was thrown out. Students were also informed that the survey was an instrument tool to analyze perceptions of Foods students and that they should try to answer the questions as honest as possible. In addition, the students were told that it was a voluntary process. The students were told that the survey would only take about five minutes to complete. The data was separated by each class section to make conclusions from each class period. All answers were read through and tallied. The tally list was compiled of positive and negative perceptions, which were based on the answers given by the students

Conclusions

Each research question for this study will now be restated and answered:

Research Question #1 - What are the perceptions of students enrolled in Foods I about the curriculum? Descriptive data is shown in Tables 4-8. For the most part, this study matched up with many of the other studies noted in Chapter II: Review of Literature. Gaunt and Palmer (2005) had in their survey that students who have a poor perception of the class will not take the course. Questions from the survey, such as question 5d (Foods topics are not important), 7a (Taking the class because of an easy elective), or 9c (the class has a lot of downtime), could all be examples of a negative perception if the students agree or strongly agree. This survey however found that mostly all of the students disagree, strongly disagree, or are undecided. The same survey by Gaunt and Palmer included students taking the course because of incentives. Students who are taking the course and have an interest in a culinary career have an incentive to learn and be prepared for post-secondary school. One discrepancy found between this study and Gaunt and Palmer study was the influence of taking the course. Gaunt and Palmer reported 73% of students say they are influenced by friends, 61% of the surveyed students listen to their parents, while only 30% of them would listen to a teacher's suggestions when choosing classes. In this study, results were much different. When asked about outside influences, only 20% agreed or strongly agreed they took it because of friends, only 11% took it because parents recommended it, and only 8% took it because the guidance counselor suggested it.

Research Question #2 - What are the differences in perceptions of students enrolled in Foods I courses based on a foods career choice versus another career? Question seven was split into two groups. Those who answered question seven as Agree or Strongly Agree were classified into "Career" and those who answered Undecided, Disagree, or Strongly Disagree

were classified as “Non-Career”. Using an independent t-test, tests for differences in questions five through nine were interpreted based on whether or not the students had an interest in Foods careers or not. In each question, students with a career interest rated higher in opinions on the Likert scale than students not interested in a foods career. Every mean for each question was higher for students interested in pursuing a foods related career except for 5d and 9c, which should display a lower mean since the questions are a negative aspect to the class. This information for questions 5, 6, 8, and 9 can be found in Table 9: Mean, Standard Deviation, and ANOVA test. No significance was found among the mean scores by question.

Research Question #3 - What are the differences in perceptions of students enrolled in Foods I course based on age levels (ages 13-18)? Each question was tested by age levels using an ANOVA test. The interest here was to see if the age was a factor in how students respond to the questions. Because each questions composite score were greater than .05, there were no statistically significant differences across the different age levels.

Research Question #4 - What are the differences in perceptions based of students enrolled in Foods I course based on grade levels (grades 9-12)? Very similar to research question three, each question was tested using an ANOVA test. Because each questions composite score were greater than .05, there were no statistically significant differences across the different grade levels.

Research Question #5 - What are ways to increase enrollment of Foods I at the sampled Midwest high school? This question cannot be answered from data, but can be inferred from the pattern of the survey answers. One way enrollment could be increased is by focusing on important foods topics and keeping them up-to-date. About 40% of the students surveyed either said they were undecided or agreed that foods topics are not important. Lab activities were all

answered positively as well as the environment category. Classroom management also surveyed to be fair, structured, and organized. Maintaining enjoyable lab activities, having positive classroom management, and upholding a constructive classroom environment is important. The category referring to reasons for taking the class has more insight on what can be done for the enrollment of a Foods class. Low numbers of students take the course because of friends, parents, or guidance counselors.

Recommendations

One main recommendation for further study would be to survey all of the Foods classes from each of the high schools in the particular district. Some schools may have a niche for a particular program and enrollment may be very high for one school and very low for another. By having data from more than one school, the results can be more precise about perceptions.

Another recommendation is to survey every student in the high school. Some students may have taken Foods I in the past and can also comment on their perceptions. Students who have never taken Foods I can answer and give conclusions about perceptions other than just the students enrolled in the Foods class.

Recommendations for FCSE and CTE as a whole would be to promote and market as much as possible. It is clear that friends do play a part in what classes are chosen. If FCSE and CTE classes are promoted in the right way, students will be more inclined to take these as an elective. Career and Technical Education Fairs could be one way to promote classes more. When students see it visually, they may remember it better. A small percentage of the students took the class because of friends, parents, or guidance counselor's suggestions.

Teachers can encourage current students to recruit for upcoming years. Parents can be informed

though newsletters sent home by the school, and counselors can be given information regarding the benefits of Foods classes.

Finally, recommendations for Foods teachers would be flexibility and promotion of classes. Each year, Foods curriculum should be revamped and updated. Connect with local Foods teachers and brainstorm ideas and activities that would be fun and educational in the classroom. Classes also need to be promoted. Produce activities that the whole school could be involved in. For example, have cake decorating contests and the student body judges. Foods teachers could also start a co-curricular club for those interested in Foods after high school. Students like to eat food. Food is a great way to promote and catch the student body's attention.

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Appendix A: *Foods I Class Survey*

Foods I Class Survey

Please do not put your name on this survey!

Please circle the following that apply to you.

1. Hour
 - a. 1
 - b. 3
 - c. 4
 - d. 6

2. Grade Level
 - a. 9
 - b. 10
 - c. 11
 - d. 12

3. Age
 - a. 14
 - b. 15
 - c. 16
 - d. 17
 - e. 18

4. Gender
 - a. Male
 - b. Female

Please answer the following questions based on your feelings about the class.

1=Strongly Disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=Strongly Agree

5. Content:

a. I really enjoy the Foods Class lessons	1	2	3	4	5
b. I can apply what I learn to my future	1	2	3	4	5
c. What I am learning can apply to my career	1	2	3	4	5
d. Foods topics are not important	1	2	3	4	5
e. Foods information is up-to-date	1	2	3	4	5
f. The lessons have interested me to go into a culinary profession.	1	2	3	4	5

Please continue on the back...

1=Strongly Disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=Strongly Agree

6. Lab Activities

a. The lab activities reinforce the lessons taught	1	2	3	4	5
b. The lab activities are enjoyable/I enjoy preparing food	1	2	3	4	5
c. I am given enough time to finish each lab	1	2	3	4	5
d. I will be able to apply the lab activities after high school.	1	2	3	4	5
e. Lab activities are easy	1	2	3	4	5
f. I am satisfied with the amount of labs	1	2	3	4	5

7. Reasons for taking the class

a. Easy elective	1	2	3	4	5
b. Interested in Foods/Career Preparation	1	2	3	4	5
c. I like to eat	1	2	3	4	5
d. My friends took it	1	2	3	4	5
e. My parents recommended me to take it	1	2	3	4	5
f. My guidance counselor suggested it	1	2	3	4	5

8. Environment

a. Overall, the classroom environment is comfortable	1	2	3	4	5
b. The class is exciting	1	2	3	4	5
c. I enjoy coming to class everyday	1	2	3	4	5
d. The instructor is respectful	1	2	3	4	5
e. I would recommend this class to another student	1	2	3	4	5
f. I am satisfied with what I have/am learning	1	2	3	4	5

9. Classroom Management

a. I am treated with respect	1	2	3	4	5
b. Discipline is fair in the classroom	1	2	3	4	5
c. The class has a lot of down time	1	2	3	4	5
d. The classroom is orderly and well maintained	1	2	3	4	5
e. The labs are always structured and organized	1	2	3	4	5
f. Labs are well prepared by the instructor and all of our materials are available	1	2	3	4	5

Thank you for taking the survey!

This project has been reviewed by the UW-Stout IRB as required by the Code of Federal Regulations Title 45 Part 46