



LOWELL PUBLIC SCHOOLS
Henry J. Mroz Administration Office
155 Merrimack Street
Lowell, Massachusetts 01852

Paul Schlichtman
Coordinator of
Research, Testing and Assessment

Tel: (978) 674-2129
E-Mail: pschlichtman@lowell.k12.ma.us

To: Linus J. Guillory, Jr., Ph.D., Chief Schools Officer
From: Paul Schlichtman
RE: CAGS Research Proposal, Susan L. Brassard
Date: August 13, 2019

Susan L. Brassard is a Culinary Arts teacher at Lowell High School. She is currently pursuing a Certificate of Advanced Graduate Studies at Fitchburg State University. Her study pertains to the modernization of Home Economics curricula to meet the current needs of high school students. Her proposal is attached.

As part of her study, she is asking to conduct a survey of students in B-House at Lowell High, during an advisory period. The proposal has the support of Head of School Marianne Busted and Department Chair Roxane Howe.

Participation in the survey is voluntary, anonymous, and conforms with Policy LC. I recommend approval by the school committee.

Executive Summary Susan L. Brassard May 30, 2019

Redesigning Home Economics Curriculum for the 21st Century Learner

Purpose: This research project will explore how the trusted vintage curriculum of home economics can be redesigned to meet the current needs of high school-aged students in the 21st-century. A modernized curriculum can close the current skills gap students are experiencing as they transition into independent adulthood. The areas being explored further include cooking skills, nutrition, budgeting, financial planning, household maintenance, meal planning, laundry, time management, personal care, and sustainability.

Hypothesis: The perceived needs of home economic related living skills of 10th-grade students compared to 12th-grade students will be significantly different. The perceived needs of home economic related living skills by gender will be significantly different. The perceived needs of home economic related living skills by ethnicity will be significantly different.

Procedures:

- Anonymous surveys will be given a sequential and non-identifying number.
- The surveys will be given during the advisory period from 9:35-9:55 during days when no instructional activities are scheduled.
- Participants will be B-house students in the 10th and 12th-grade levels.
- The survey will endure a colleague peer review, and several of the 11th grade B-house students will be surveyed as a trial before the final survey is drafted to ensure validity.
- Survey data will be compiled using SPSS (Statistical Package for the Social Sciences) software, being purchased at a personal cost, to ensure the reliability of the data.
- The survey data will be analyzed to produce a summary paper and a curriculum map for a potential course within the culinary arts pathway.

Benefits:

- This research project will allow me to complete the required coursework needed to complete the CAGS interdisciplinary studies program at Fitchburg State University.
- The survey will give students a voice, an opportunity to share their perceived needs regarding independent living skills, and to discover ways to assist them in transitioning into adulthood.
- Curriculum can be designed from the final data that is specific to the needs and wants of the 21st-century learner.

Closing:

- A copy of the final project will be provided to the Lowell School Committee upon completion.
- There will be no costs to the Lowell School Department.

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Redesigning Home Economics Curriculum for the 21st Century Learner
CAGS IDIS 9400 – Capstone Research Prospectus
Susan L. Brassard
May 17, 2019

a. Problem Statement:

The elimination and reduction of the home economics curriculum from high schools are creating an independent living skills gap that hastens the transition of current adolescents into independent adulthood. The evolution from early home economics to the Family and Consumer Science branding failed to gain acceptance into the general curriculum and lacks financial support from today's administrations. With high schools becoming hyper-focused on standardized testing curriculum, courses such as home economics have been deemed unnecessary, and leave students without the necessary skills of nutrition, cooking, financial literacy, household management, and sustainability.

Therefore, it is proposed through this research prospectus to explore further the perceived needs of high school aged students to determine the curriculum required to tighten this skills gap. The reason for this study is to survey high school students to define specific skills they perceive are lacking in the current curriculum offered through the traditional public high school systems. The research will focus on adolescents at two segments in the 10th, and 12th-grade levels, will be gender inclusive, and analyze a variety of ethnicities within the school population.

Through this research study, the data will be collected and analyzed to determine the areas of deficiencies and to create a curriculum map to satisfy the needs of the twenty-first-century student. This study does not intend to dismiss the vintage curriculum of home economics, rather to design a modern curriculum that incorporates proven teaching methods in a modernized format and delivery system. The two areas of the IDIS program being integrated are Occupational Education and History. Occupational Education studies will be used to draw current information in the career and technical field as well as the current state frameworks. History will

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be incorporated with the use of historical curriculum, textbooks, and domestic science manuals previously used within the home economics classroom.

b. Limitations:

This study will only be able to look at a subset of the population of the school due to the population size. Lowell High School in Lowell, Massachusetts' current enrollment for 2018-19 is 3,174 students. Permission has been granted to collect data from the students within the assigned house office, which is the B-house. B-house currently has approximately 600 students within their authority. This research will focus on B-house students in the 10th and 12th-grade levels, approximately 400 students, slightly greater than 10% of the student population. The students are randomly assigned to house offices through the data entry department and the Lowell High schedulers. Survey completion time will be limited to the student's advisory period that lasts twenty minutes per day, between the second and third-period classes.

c. Delimitations:

The study will only survey the 10th-grade and 12th-grade students within the B-house population. Due to advisory period time constraints, the 9th-grade students are excluded as they are housed in a separate building. The 9th-grade population as a whole also comprises one separate house office under the Freshmen Academy, and they are not assigned to the higher house offices until the beginning of their 10th school year.

d. Research Hypothesis:

The perceived needs of home economic related living skills of 10th-grade students compared to 12th-grade students will be significantly different. The perceived needs of home economic related living skills by gender will be significantly different. The perceived needs of home economic related living skills by ethnicity will be significantly different.

e. Student Population:

The proposed survey will be conducted within the Lowell High School in Lowell, Massachusetts. The student population for the 2018-19 school year is 3,174 total students enrolled. There are currently 1,563 male students (49%) and 1,611 female students (51%). This diverse population consists of 12.3% African American, 30.6% Asian, 26.3% Hispanic, 27.9% White, and 2.9% Multi-race/Non-Hispanic. Currently, students whose first language is not English is 20.5%, English Language Learners 12.9%, students with disabilities 11.2%, high needs 64.1%, and economically disadvantaged 46.1%.

The graduation rate for 2018 cohort is 82.7%. The expected plans after graduation for the 2017-18 class for a 4-year private college is 16.5%, 4-year public college 36.7%, 2-year private college .2%, 2-year public college 31%, and other postsecondary 1.5%. Students designating other alternatives including apprenticeships at .2%, work 5.7%, military 2.9%, other 3.8%, and unknown at 1.7%. The dropout rate for the 2017-18 school year was 59 total students at a rate of 1.9%.¹

f. Selection Methods

The 2019-20 total student enrollment is expected to be similar to the current population of 3,174. It is anticipated to be approximately 800 students at each grade level from 9th-12th. All students in the 10th-12th-grade levels are divided into four house offices (B, C, D, E). For this research, the student selection will be limited to the B-house students. The four house offices are presumed to be

¹ "Massachusetts School and District Profiles." n.d. Enrollment Data (2017-18) - Lowell High (01600505). Accessed April 14, 2019.
<http://profiles.doe.mass.edu/profiles/student.aspx?orgcode=01600505&orgtypecode=6&>.

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demographically similar as the selection assignments are performed on a random basis by the Lowell High schedulers in the data processing department. The proportion of females and males is consistent in each house office as the schedulers use gender as the determining selection factor for placement. I have the support of administrators and the B-house student dean to conduct a survey within my assigned house office, which is the B-house office. This research will require the approval of the Lowell School Committee.

The 10th and 12th-grade students have been selected to provide survey data on the perceived needs of younger students and older students nearing the age of adulthood. There will be approximately 400 total students in the survey sample, 200 in the 10th grade and 200 in the 12th grade. Each student is assigned to an advisory classroom at the start of his or her 10th year and, they remain within that advisory room for the duration of their secondary education. The surveys will be administered during the advisory period that runs for 20 minutes between the second and third-period classes.

g. Variables Being Studied

The dependent variables being studied are the keys terms associated with home economics curriculum. These terms include but are not limited to cooking, housekeeping, financial planning, sewing, budgeting, laundry, household maintenance, time management, nutrition, personal care, global awareness, and sustainability. The independent variables being studied include gender, ethnicity, and age at two different grade levels. The final dependent variables will be selected from each of the survey questions following the final survey draft. The survey will be created based upon recent brainstorming sessions performed within the food studies classes, and this information will be used to compile a draft survey. The survey will be reviewed by school colleagues for feedback and will be followed by a redraft. The redraft survey will be given to a sample of 11th-grade students in the B-house as a trial before the final survey will be printed and given to the student sample population.

h. Levels of Measurement

The survey data will be measured using a nominal scale. This method will allow the data to be categorized and analyzed based on the independent variables of age, gender, and ethnicity. For answers that do not fit into the listed category on the survey there will be the option of “other – please explain,” in particular the other option will be used in the determination of ethnicity and gender. Gender will be categorized into female or male with the other option for those who identify themselves under a different category. A student’s ethnicity will be listed under several categories with the other option for those who identify as bi-racial or identify themselves under a category not provided on the ethnicity question. Age will be listed as years and used to identify students in the 10th and 12th-grade levels. Additionally, students will be asked to select their grade level to verify. Each survey will be given a sequential identification number with no personally identifying factors.

i. Statistical Procedures

The data will be analyzed using the SPSS (Statistical Package for Social Sciences) software. The use of the software will allow for the survey data from all the approximately 400 surveys to be used in the evaluation. The data will be collected on the written surveys and entered into the software program to determine if the perceived home economic needs of the student are significantly different by age, gender, and ethnicity. The majority of survey questions will be formatted using the Likert Scale with five answer options. The threshold of significance for this research study will be greater than .05 to determine if the null hypotheses may be rejected.

The data will be tested using the cross tabulation method to reveal any correlations between the independent variables of age, ethnicity, gender and the dependent variables of home economics related key terminology. Use of the nominal scale will lead to greater reliability with variables having a minimum of two

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qualities. For example, in the category of gender, respondents will select either male, female or “other – please explain” ensuring they are appropriately placed into the categories they self-identify. The use of “other” will ensure additional categories can be added in the data analysis process to address all possible responses. A student’s gender will then be compared to a student’s perceived abilities in regards to cooking, financial literacy, nutrition, and other key home economics terminology.

To ensure the validity of the survey, there will be several steps in the survey creation process. The first is designing questions based upon a recent brainstorming session held with five different food studies courses; approximately 120 total students participated. Colleagues at Lowell High School within and outside of the culinary arts department will review the draft survey. The survey will be redrafted following colleague feedback. The redraft will be given to various advisories in the 11th grade as a trial survey to check for content understanding and to verify the questions are age appropriate. The 11th grade will not be part of the final sample population. Each advisory classroom will be given an introduction letter and purpose statement the day prior to giving the survey. Following these procedures, the final survey will be presented to the selected sample population.

j. Evaluation Process

The final product from this research will be a creative project. This project will include a summary paper detailing the process, an analysis of the survey results, a reflection, and a curriculum map using current frameworks of the Massachusetts Department of Elementary and Secondary Education. The project will be submitted to the faculty supervisor Professor George Bohrer for grading using Fitchburg State University’s college grading scale. The grading rubric will be provided prior to the commencement of the project on 9/1/19.

k. Procedures

The meeting schedule for this project will be bi-weekly checkpoints via email or phone. The survey final draft and survey trial will be completed by 9/30/19. The

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survey will be given and data will be input into the SPSS software by 10/31/19. The data will be analyzed and the draft paper with survey data analysis and the process will be completed by 11/30/19. The final paper and the curriculum map will be completed by 12/18/19 and submitted to Professor George Bohrer for grading.

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