

Fall 2010

Students: Allison Giardini, Christina Bestak, Communication Disorders and Sciences

Mentor: Dr. Bridgett Russell, Communication Disorders and Sciences

“Nasalance levels in the speech of normal Western New York Adults”

The purpose of this project is to understand how adult Nasalance scores differ depending on geographic region. We will be studying how the Western New York Dialect differs from the normative data that is currently available for all adult populations. Secondly, the project objectives include conceptualizing, creating, collecting and completing an experimental research project. This semester will represent the initial data collection phase of the project involving a literature review, practicing using the Nasometer and collecting data from a normal population of speakers.



Student: Allison Miller, Communication Disorders and Sciences

Mentor: Dr. Paul Blanchet, Communication Disorders and Sciences

As part of my graduation requirements, I have conducted a research project (directed study) with the guidance of my mentor, Dr. Blanchet. The project involved a questionnaire to assess vocal majors' knowledge and awareness levels of the vocal mechanism's structure, function and care. The school of music was gracious enough to work with us, and agreed to allow time for myself and Dr. Blanchet to collect data during the first voice-area recital seminar. Below is the abstract of the paper, which has been submitted to the New York State Speech-Language-Hearing Association (NYSSLHA) for a student poster session at their annual convention to be held in May 2011.

University voice majors completed a questionnaire designed to assess knowledge and awareness levels regarding structure, function and care of the vocal mechanism. Data were analyzed between singers at the beginning and end of their academic training (i.e., freshman versus seniors). Results revealed that seniors scored significantly higher than freshman on questions about general knowledge of the vocal mechanism, as well as questions regarding anatomy and physiology.

Student: Kazlin Mason, Communication Disorders and Sciences

Mentor: Dr. Bridget Russell, Communication Disorders and Sciences

“The Use of Flow-Volume Loops in the Evaluation and Treatment of Paradoxical Vocal Fold Dysfunction”

The purpose of this study is to determine if flow-volume loop measurements can determine onset, duration and resolution of a Paradoxical Vocal Fold Dysfunction (PVFD) episode. Measuring flow-volume



changes may help determine if treatment is effective in treating this disorder and also provide information on which elements of the treatment relieve the symptoms most efficiently. The subjects' flow-volume measurements will be collected before, during and after treatment to determine changes in flow-volume patterns, when they occur and in what direction they change. Results will include a comparison of flow-volume measures at various points of the intervention process. A discussion of the effectiveness of utilizing these measures in the identification of PVFD episodes and whether or not these measures can identify the most effective treatment protocol will be provided

Students: Jessica Gostomski and Zack Robison, Environmental Science

Mentor: Dr. Sherri Mason, Environmental Science

They are working with Dr. Sherri Mason on a number of initiatives. Most notably (to-date) we are working on a project to 'Green Local Businesses'. This semester this project is focused upon local food service providers (businesses like: EBC, Nomad's, Intermezzo, Upper Crust, White Inn, BBB, etc.). We are looking to form a co-op where these businesses unite together to purchase more environmentally friendly consumer products (like to-go containers that are made from corn-starch and thus are recyclable and biodegradable). By coming together they can purchase larger quantities, which decreases the overall cost to any one particular business. Nomad's is leading the way with this idea as they have already switched over and they have come up with a business plan to make it economically viable



Student: Kong Gao, Psychology

Mentor: Dr. Guy Boysen, Psychology

Kong Gao is working on an honors thesis project with me this year. He will be conducting an experiment concerning the predictors of student procrastination habits. The experiment will explore how assignment type, assignment difficulty, and trait-based procrastination affect individuals' completion of a homework assignment. I believe Sherri has a picture of Kong from the undergraduate conference.

Students: Ryan Carter, Mike DeJesus, Psychology

Mentor: Dr. Ingrid Johnston-Robledo, Psychology

Dr. Johnston-Robledo, as the research associate for the new Reaching Out to SUNY Grant (Ginny Horvath & Beez Schell), designed and conducted a campus climate survey to determine the climate for lesbian, gay, bisexual, transgendered, queer, and questioning members of the SUNY, Fredonia campus community. This is one of three prongs in the grant. We are hoping to make our survey available to other SUNY campuses and to use our findings to improve policy, programming, and quality of life for sexual minorities on campus

Spring 2011

Student: Casey Trask, TESOL Program

Mentor: Dr. Kate Mahoney, Curriculum and Instruction



Casey Trask is currently enrolled in the MEd. program in Teaching English to Speakers of Other Languages (TESOL). Under the supervision of Dr. Kate Mahoney, Ms. Trask is designing a workplace ESL curriculum to meet the needs of a local area factory. Amanda Walden, the director of Chautauqua County Literacy Volunteers, contacted Mahoney to discuss some frustration Fieldbrook Foods (formerly known as Dunkirk Ice Cream) was experiencing with communication between workers and supervisors due to a language barrier. Ms. Trask is pursuing the development of a work-based ESL curriculum to meet the specific needs of Fieldbrook Foods as her Master's Project in the TESOL program. Ms. Trask has already conducted a needs-assessment with Robert Watson from Kelly Services and Amanda

Walden

from Chautauqua Literacy Volunteers, conducted a literature review, as well as the development of lesson plans focusing on basic communication in the workplace and safety. Another Literacy Volunteer and former Dunkirk Spanish teacher, Mary Margaret Fogarty will be implementing the curriculum. Ms. Trask is a great role model for her peers because she is addressing local area needs while learning how to plan, write, and deliver culturally relevant curriculum.

Student: Leanna Greenberg, Psychology

Mentor: Dr. Jack Croxton, Psychology

Leanna Greenberg is currently completing her Honors Thesis under the tutelage of Dr. Jack Croxton of the Psychology Department. She is studying how physical distance affects assumptions concerning interpersonal attraction across different cultures. She will be presenting her research at the Western Pennsylvania Undergraduate Conference and at our own Student Research and Creativity Expo.

Mathematics Education Thesis 2010/2011

Reid Bland: Area Awareness: Middle School Students' Perspective. This research examines how students solve area comparison problems in a middle school mathematics classroom. *It is hypothesized that middle school students will rely on their memory and area formulas to compare the sizes of two different geometric figures with measurements given in the diagrams, rather than an informal approach of "manipulating" the figures so that they can be visually or more easily numerically compared. Furthermore the informal approach will be more accurate than the approach that uses formulas.*

Kristi Jo Bockhahn: P²: Preference and Performance. A Study of the Preference and Performance of Students on Mathematics Word Problems in Comparison to Computational Problems. This research examined student preference and performance on word problems versus computational problems. *It is hypothesized, when given a choice over solving a computational problem or solving a word problem, students enrolled in Prize Winning Mathematics will choose the computational problem over the word problem even though the word problem is less difficult than the computational problem.*

Jennifer Burr: The study of the effects of the National Mathematics Standards and New York State Mathematics Standards on students in the high school classroom. This study explores the knowledge base of High School mathematics teachers with the New York State Mathematics Standards and the National Mathematics Standards. Additionally, this study will gain insight as to how educators apply this knowledge into their classrooms. *It is hypothesized that New York State high school mathematical educators do not know or understand the New York State Mathematics Standards or the National Standards. Specifically, the educators do not tie in their lesson plans with the New York State and National Mathematics Standards.*

Gregory Cotton: CSI New York: A Study of the Correlation Between a Well Thought Out Crib Sheet and Test Score. This research examines the effects of allowing students to create crib cards and use them on a test, and what correlations the crib card has to their test grade. *It is hypothesized that students who construct well thought out crib sheets will outperform students who put little to no effort into their crib sheet. This will be true whether or not the student is a high achiever.*

Clare Eckert: How Do We Grade it Best? A Study of the Effects of Grading Homework Randomly on Completeness and Accuracy. This research examines the effects of grading homework randomly in an attempt to improve completeness and accuracy of homework. *It is hypothesized that by grading homework randomly, students will more frequently, not only complete their homework, but complete it accurately.*

Eric Johnston: Creating the Most Effective Homework Policy: Secondary Mathematics Education. This research was designed to determine the ideal homework policy for a secondary mathematics classroom. *It is hypothesized that there is a common core of homework policies that included: daily assigned homework tasks, and mandated collection. It is also hypothesized that there will be wide variations in grading, challenge, and content.*

Megan Larson: The Great Divide. This research examines the problem solving strategies implemented by students from various ages, ranging from Middle School to college freshmen and sophomores. *It is hypothesized that students of different ages and levels of cognitive development will invoke diverse problem solving strategies when presented with division related problems. As students mature academically, their ability to draw connections among various representations, such as concrete modeling, spoken or written language, symbolic writing, or static-pictures, is constantly changing. Students will generally answer division problems in one of two ways; using either repeated subtraction or the partitioning method. It is the relationships that students create among the above mentioned representations that vary according to age and developmental stage.*

Daniel Maloney: FOIL; It Belongs on the Shelf, not in a Mathematics Textbook: A Study of the Effects of Learning the FOIL Method on Students' Ability to Perform Polynomial Multiplication. This research examines the effects of learning the FOIL method to multiply two binomials on students' ability to perform polynomial multiplication. *It is hypothesized that college students who initially learned the FOIL method to find the product of two binomials, have not conceptualized the general idea of polynomial multiplication, and hence they experience difficulties in finding products involving trinomials.*

Ashley Myers: Memory Multiplication: A Study to Determine Which Grade Level Will Produce a Higher Accuracy Rate on Multiplication Facts. This research examines which grade level will have the highest accuracy rate on a timed multiplication test. *It is hypothesized that sixth grade students will have a higher accuracy rate on multiplication facts than students in fifth grade through twelfth grade. Specifically, sixth grade students will score the highest percent on a (three-minute) timed multiplication test.*

Allison Spencer: The Hitchhiker's Guide to Linear Programming: How Non-Mathematics Majors Solve Linear Programming Problems. This research explores the ways in which students who have never been formally introduced to the subject/topic of linear programming would solve a contextual linear programming problem. *It is hypothesized that students in Prize-Winning Mathematics, a general education course for non-majors at SUNY Fredonia, will use multiple informal and non-algebraic strategies to solve a contextual linear programming problem.*

Sarah J. Taylor: A study on the misunderstandings of division in the middle school mathematics classroom. This research explores the way in which students within a middle school mathematics classroom comprehend the process of dividing. *It is hypothesized that students at the middle school level who are learning division have misconceptions on the process of computing division, specifically, when the division problem includes whole numbers, decimals or fractions.*

Nicholas Williams: Homework: When to Give it And How to Get Them to Do it!!! A Study in the Best Day to Assign Homework and How to Get Your Students to Complete Homework. This research first examines if there is an overwhelming better day to give homework during the week to students and then explores how students react to different extrinsic rewards in completing their homework. *It is hypothesized that Monday is the best day to give homework*

because students are fresh and ready to go after a restful weekend. Also, it is hypothesized that students will do their homework more often if they have some extrinsic reward they may earn.

Joshua Zebracki: A Study of Students' Preference Towards the Different Methods to Finding Solutions of Quadratic Equations. This research explores students' method preferences when finding solutions to quadratic equations. *It is hypothesized that when solving quadratic equations, students prefer to use either the completing the square method or the quadratic formula over the other. Specifically, the students will utilize only one method to solve quadratic equations instead of alternating approaches when given different types of quadratic equations*