

**HONORS PROGRAM SYMPOSIUM
TUESDAY, APRIL 19, 2011
SHIPPENSBURG UNIVERSITY FOUNDATION CONFERENCE CENTER**

Anthony Blair, Biology Major
Connecting Human Endogenous Retroviruses and Cancer
Faculty Advisor: Dr. William Patrie

Cancer has an ominous presence in today's world. The International Agency for Researching Cancer estimates 12 million new cancer diagnoses and more than 7 million deaths this year worldwide. If we could understand the complex causes of cancer we would be better equipped to develop lifestyles and treatments that could reduce cancer. Human Endogenous Retroviruses (HERV) which account for more than 8% of the human genome have been implicated in certain types of cancer, namely HERV-K and promyelocytic leukemia. Here we attempt to isolate unknown HERV sequences that could modulate cancer. The technique used was a modified RT-PCR protocol that utilized non-specific primers for long terminal repeats (LTR), long repeated sequences that typically flank retroviral genes. At the present the RT-PCR products have not been sufficient enough to sequence, although various protocol and primer modifications look promising for future experiments. In the future HERV transcripts will be sequenced and expressed in eukaryote cells to measure the effects on physiology. Continued research with endogenous retroviruses may shed new light on the complexity of the origin of cancers.

Lisa Brehm, Elementary Education Major
The Effects of Music on Listening Comprehension
Faculty Advisor: Dr. Christopher Schwilk

This study focused on the effect of music on listening comprehension, event sequencing, and vocabulary recall. A sample of fifth-grade students was divided into two groups. All students were either below grade level or on grade level for reading. Both groups were read aloud the same passage and given the same instructions. One group then listened to a poem put to a hip-hop beat while the other group listened to the poem read aloud. The results of pre-tests and post-tests were analyzed to measure the impact of music on students' ability to recall vocabulary and sequence events.

Christopher Eby, Computer Science Major
Finding the Farm: Postal Address-Based Building Clustering
Faculty Advisor: Dr. Alice Armstrong

Geocoding, the act of mapping place names and addresses to locations on digital maps, is an important feature of many geographical information systems. Yet, traditional geocoding algorithms can be very inaccurate, especially in rural areas. Land plot maps maintained by local governments can be used to increase accuracy, but are not always available. A method that has the potential to greatly increase accuracy by exploiting two widely available datasets, phone book addresses and building locations derived from aerial photographs, has been proposed; but it may still be inaccurate when the number of buildings does not correspond to the number of

addresses. Therefore, this research describes a method of taking addresses and building locations and grouping the buildings into clusters where each cluster contains the buildings present at a single address. These clusters can then be geocoded to produce more accurate results in rural areas than existing methods.

Kathleen Frey, Elementary Education Major
Implementing Learning Centers in Vocabulary Instruction
Faculty Advisor: Dr. Lynn Baynum

My study focused on the impact of creating vocabulary learning centers that would meet the needs of diverse learners. The learning centers provided independent practice for struggling students and enrichment activities for early finishers. While the students completed meaningful independent exercises, I gained the opportunity to work with students one-on-one. I sought to increase my effectiveness as a teacher and improve student achievement. The portfolio I created, containing all needed materials for each learning center, samples of student work, and reflective comments from the instructor's perspective, is intended to serve as a valuable tool for all teachers. The templates are designed to work with virtually any list of spelling or vocabulary words, and teachers can adapt the materials based on individual class needs and curriculum differences.

Kristen Imboden, Elementary Education Major
Leading Reading: Improving Literacy Education in the Dominican Republic
Advisor: Dr. Lynn Baynum

Can American research-based literacy strategies transcend culture and provide effective instruction for all children? The unique opportunity to answer this question presented itself thanks to a partnership between the Shippensburg University Honors Program and several child development centers that serve low-income children in Santo Domingo, Dominican Republic. A researcher-designed literacy education manual was used to lead a teacher training workshop on literacy instruction at one child development center. Through pre- and post surveys, as well as interviews and observational reports, data revealed the effectiveness of the workshop and literacy strategies. The trends provided insight into the ability of literacy education to span cultural divides. However, results indicated that continual modeling of effective literacy instruction is needed to support the progression of these foreign teaching strategies.

Katie Kitner, History Major
The Gilded Age of Dress: Balancing High Fashion with Civic Responsibility
Faculty Advisor: Dr. Karin Bohleke

Clothing is the medium through which we present ourselves to society. In one glance, our sense of style can reveal social status, professional standing, personality or judgment. One local Shippensburg woman, Sara Rees (Hogan) Boher, certainly captured the public eye with her fashion sense. Sara was born in Philadelphia and moved to the Shippensburg area when she became a professor at the Cumberland Valley State Normal School (now Shippensburg University) in the 1870's. Throughout her life, she was noted to have stunning gowns and accessories; and photographs of her throughout her life attest to this observation. The guiding

questions of this project focus on Sara Boher's surviving clothing, and how these garments serve to illustrate her larger role within Shippensburg society in the late 19th-early 20th century.

Kaitlin Klinger, Accounting Major
Volunteer Income Tax Assistance: Financial Literacy for Children
Faculty Advisor: Dr. Deborah Hocking

The purpose of this project was to present financial literacy concepts to children whose parents are clients for the Volunteer Income Tax Assistance (VITA) program. The goals were achieved through the creation of a coloring book that had financial literacy ideas worked throughout the pages. The coloring book and crayons/colored pencils were available during the times that VITA operates. In addition, the coloring book was offered to those individuals who had dependents listed on their tax returns, but whose children were not present at the time.

Monika Mironenko, Political Science Major
The Affordable Care Act: Understanding How It Will Impact Pennsylvania and the Intellectual Disability Community
Faculty Advisor: Dr. Michael Greenberg

My research examines how key provisions of the Affordable Care Act of 2010 will impact Pennsylvania and its intellectual disability community. The paper explains previous universal health care efforts in the United States, and it focuses on how major provisions of the Affordable Care Act, including the State Balancing Incentive Program and the Community First Choice option, will affect the intellectual disability community in Pennsylvania. The paper concludes with recommendations regarding the implementation of the Affordable Care Act in Pennsylvania.

Michele Muenker, Elementary Education Major
Using Literature to Enrich Mathematics
Faculty Advisor: Dr. Cheryl Slattery

When most people think of education, they think of reading, writing, mathematics, science, and social studies as separate subjects. Students go about their school day transitioning from subject to subject, working on the skills required for a particular subject during the designated time period for that subject area. Many students struggle specifically in mathematics because they do not see a link between the subject area and their lives. However, if teachers integrate mathematics with literature, mathematics becomes easily accessible and more relevant to their lives. This study explores the links between literature and mathematics. Literature was used to teach a group of students about elapsed time while another group was taught the same material using just worksheets. As time goes on, research has shown that these subjects correlate more than some might think.

Katherine O'Flaherty, Management Major
"The Limits of My Language Mean the Limits of My World": Ludwig Wittgenstein
Foreign Language in Business Education
Faculty Advisor: Dr. Allison Watts

How relevant is foreign language education to business schools and educators? Foreign language has been part of the humanities for decades. Business students, even those not interested in working abroad, would benefit greatly from having the knowledge of other languages and cultures. Because of the rapid pace of globalization, this study proposes that foreign language instruction should be an important component of the education of all undergraduate business students.

Jessica Rossi, Exercise Science Major

The Psychological Effect of an Exercise Program to Correct Posture

Faculty Advisor: Dr. Sally Paulson

There are various reasons why a person may decide to participate in an exercise program. One reason may be because they are interested in the content of the class, like strengthening their muscles. Another reason may be because they are interested in the socializing with friends. The purpose of this study was to evaluate the psychological aspect of a corrective movement class on participants. Subjects voluntarily participated in a five-week class that concentrated on strengthening muscles and improving posture. At the end of the program, the individuals filled out a questionnaire evaluating whether they were interested in the program because of the task it addressed or because of the social atmosphere. It was hypothesized that posture would be enhanced by a program that strengthened muscles with postural exercises because participants would first focus on the task of the class and would secondly be concerned with the social aspect of the class.

Angela Shultz, Psychology Major

The Relationship Between Mindfulness, Self-Acceptance, and Depression

Faculty Advisor: Dr. Kim Weikel

This study examined the relationship between mindfulness, self-acceptance, and depression. Since mindfulness is used as a stress-reduction technique and depression is associated with stress, the study considered whether mindful persons with strong self-acceptance displayed fewer depressive symptoms. The data for the study was collected from undergraduate students through three inventories: the Kentucky Inventory of Mindfulness Skills by R.A. Baer, G. T. Smith, and K.B. Allen (2004); the Self-Acceptance Scale by E.M. Berger (1951); and the Center for Epidemiologic Studies Depression Scale from NIMH.

Sara Workman, Management Major

Understanding Why Nurses Go on Strike

Faculty Advisor: Dr. Jerry Carbo

Strikes are pressure tactics that employees use if they feel they have no other recourse to achieve their goals. While many types of employees have typically been willing to go on strike, nurses have historically been hesitant. Nurses are concerned with patient care, and if they believe that patient care will suffer while they go on strike, they will be less willing to strike. Yet, nurses have gone on strike, which leads us to question the issues that have propelled them to make this

decision. A study of nursing strikes indicates that the most common reasons for striking include patient-to-nurse ratios, pay, forced overtime, health insurance, and benefits.

Sara Wlazelek, English/Secondary Education Major

Multigenre Artifacts: A Possible Cure for the Common Worksheet

Faculty Advisor: Dr. Thomas Crochunis

In high school settings, worksheets seem to be the go-to form to assess and monitor student comprehension. But are they effective? In an effort to engage students, encourage higher level thinking, and incorporate student creativity into the classroom, I replaced worksheets with creative mini-projects to showcase students' knowledge and understanding of various literary elements. Students could choose from a wide variety of options: comic strips, movies, facebook pages, and anything they imagined on their own (as long as it was teacher approved).