

**NORTHWEST MISSOURI STATE UNIVERSITY
ABSTRACTS OF COMPLETED RESEARCH PROJECTS
APPROVED BY FACULTY RESEARCH COMMITTEE**

Research Grant Written Report

3.1 Researcher: Martha Breckenridge, PhD, Assistant Professor of Art, Art History

3.2 Project Title: **Christine de Pizan's *Livre d'Epître d'Othéa à Hector*:
Continued Research**

3.3 Type of Grant: Faculty Research Grant
Chair, Stephen Town, PhD

Awarded October 21, 2008.

Amount approved \$2,100.

Research trip completed January 10, 2009.

3.4 Findings and Recommendations:

Thanks to my NW research grant, I spent two weeks in Belgium and France, continuing my research on the manuscripts of the *Livre d'Epître d'Othéa à Hector* by Christine de Pizan, from December 30, 2008, to January 10, 2009. Specifically, I worked in the State Archives Office of Tongres, Belgium, where the director helped me discover documents unavailable to me here, related to the 1394-5 Battle of Othéa. My presence in Tongres not only offered me access to books and journals in the possession of the State Archives, but also acquainted me with their director, who has agreed to assist me in obtaining other publications from collections in Liège. He had very generously offered to drive me out to the site of the battle, where some monuments have recently been constructed, but a sizeable snowstorm prohibited our travel by car.

In Paris I eventually gained access to an early printed book which, I had been informed, was too fragile to be microfilmed or xeroxed. It was necessary to request permission from the Director of Special Collections to see the book. With that permission, I was able to define its influence on other works I have previously studied from this period of early Paris printing.

Finally I spent an afternoon in the Beauvais Municipal Library where their Director allowed me to see their little-studied copy of the Christine de Pizan work. Although I own a microfilm of that manuscript, it was not possible to discern differences in inks without looking personally at the leaves. Furthermore, I was able to read some text

illegible in the microfilm. That gentleman kindly put me in contact with other scholars in Paris who will aid me in the future as I pursue this topic of study. I am grateful to the committee and the University for this research opportunity

Expenses for which I have requested reimbursement from the Research Grant Committee are as follows:

Airline travel	\$797.33
Railway, subway, and taxi travel and airport parking	639.31
Reader card and museum entries	64.70
Hotels	<u>540.26</u>
Total	\$2041.60

Applied Research Grant Final Report

3.1 Researcher's(s') Name, Title, Department Name

Dr. Jackie Kibler, Assistant Professor and Dr. April Haberyan, Assistant Professor
Department of Psychology, Sociology, and Counseling
2340 Colden Hall/2370 Colden Hall
562-1852/562-1305

3.2 Project Title.

Suicide Prevention Training for Resident Assistants: Results of the Northwest Training Model

3.3 Type of grant - Date granted - Amount approved - Date completed

1. Category Types: 1.3.2. foster implementation and assessment of key quality indicators within departments/units; 1.3.4. request funds to use as match for grant proposals submitted to outside agencies; or 1.3.5. otherwise meet the definition/purpose as identified in 1.1.
2. Date granted: Fall 2008
3. Amount approved: 2750.00
4. Date Completed: Spring 2008 (ACA Conference March 26-31; Honolulu, Hawaii)

3.4 Findings and recommendations.

The Northwest Model to Suicide Prevention is based on a comprehensive review of the literature, research, and observations of individuals struggling with issues of suicide. The change in knowledge from a suicide prevention training program with Resident Assistants was evaluated. The results of the SPEAKS-S (SAMHSA, 2006)

pre/post-test data indicated that participant knowledge regarding suicide and suicide prevention increased after participating in the training session. Knowledge on two specific items decreased slightly on the post-test which may indicate that those particular items need to be highlighted differently in future training sessions. Anecdotal reports from Residential Hall staff have indicated that the training sessions have helped to alter practices in the residence halls. Prior to these training sessions, there were reports of RAs maintaining "suicide watches" with students in crisis and postvention efforts that involved the unintended sensationalizing of suicide attempts. Anecdotal reports indicate that these practices are no longer occurring and RAs have a better understanding of how to handle residents in crisis.

Report of Expenses

Travel (airline, hotel, airport shuttle transportation in Hawaii) (\$1038 each)	\$2076
Conference Registration (\$280 each)	\$560
<i>Meals* (covered by dept/college funds)</i>	<i>\$1000</i>
Travel to/from KCI (158 miles total*0.415)	\$66
Airport parking (\$5.50 p/day)	\$33
Handouts (75 copies of 10 page packet)	\$23
Total Funds Requested	\$2758**

FACULTY RESEARCH PROPOSAL ABSTRACT

1. Researcher's (s') Name, Title, Department Name

Rebecca Hendrix, PhD, Assistant Professor, Psych/Soc/Coun
Alisha Francis, PhD, Assistant Professor, Psych/Soc/Coun

2. Project Title

Validation of Student Research Judging Criterion

3. Type of grant – Date granted – Amount Approved – Date completed

Faculty Research Grant – October 2008 - \$44 – January 26, 2010

4. Findings and Recommendations

Since the mid-1970s, psychology students have increasingly been involved in independent research projects. This increase has been attended by an increase in the number of regional undergraduate research conferences (Kierniesky, 1988). While students are encouraged to present their findings at conferences, little research has been performed looking at their satisfaction and learning from this experience. Therefore, the current study compared student and faculty ratings of student research presentations at a regional student conference.

For each student presentation at the conference, both student and faculty judges used rating sheets to evaluate various aspects of the presentation. In addition, the presenters of the projects were asked to fill out the same rating sheets evaluating their own work. As with the Kring et al. (1999) study, rating sheets evaluated both the content of the work as well as the presentation style of the student researchers.

Average scores for the presentations were analyzed with a 4 (presentation type) by 3 (rater) ANOVA. Ratings contributed by presenters tended to be significantly different than those of both faculty and student judges. For posters, oral empirical, and oral theoretical presentations, student researchers rated their presentations more highly than did the faculty or student judges. However, faculty judges and student judges rated applied learning presentations more highly than the presenters themselves.

Presentations were judged by two faculty members, two students, and by the presenters (a range of one to three presenters rated their own projects). Therefore, correlations were performed investigating the relationship between faculty, student, and presenter ratings. No relationships were found although the relationship between faculty and student judges approached significance.

Two demographics were assessed to see whether they influenced presentation ratings. Male judges tended to score the presentations more negatively than did female judges but male presenters tended to score their presentations more positively than did female presenters. Prior attendance at a research conference did not influence the ratings provided by judges or presenters.

5. Listing of expenditures by type, total spent, and balance remaining to be returned to the Faculty or Applied Research Account

Photocopies (456 copies x \$.03)
\$13.68
Total spent
\$13.68
Funds remaining to be returned
\$30.32

1. Researcher

Yanfen Le, Ph.D., Asst. Prof., Geology/Geography

2. Project title

Visualization of Dynamics in Transportation Data Represented in Linear Referencing

3. Type of grant - Date granted - Amount approved - Date completed

Type of grant: faculty research
Date granted: October 23, 2008
Amount approved: \$351
Date completed: August 18, 2009

4. Findings and recommendations.

Linear referencing represents dynamics in point or linear events, such as accident and resurfacing, along linear features like routes. Currently, dynamic segmentation is the only way of displaying events along linear feature. Although dynamic segmentation is good at displaying events on the fly, there are difficulties in handling multiple and temporal events. For example, temporal resurfacing events will be overlapped together and it is hard or even impossible to distinguish in traditional dynamic segmentation. When there are multiple types of events, such as resurface, number of lanes, and speed limits, they are further split into smaller pieces of segments. This process greatly slows down the display speed and increases difficulties in semantics.

In this research, I explored alternative approaches, including dynamic segmentation with temporal offset, 3-dimensional (3D) view, and animation, for visualization of temporal events represented in linear referencing system. In dynamic segmentation with temporal offset, temporal offsets are introduced to visually display of the time dimension. In this approach, I used a relative time axis perpendicular to the linear feature. The older an event, the closer it is displayed to the original linear feature. When multiple temporal events are referenced to the same temporal system, they can be mapped together without further split into short segments. Using dynamic segmentation with temporal offset, it is not only fast to visualize multiple events in 2-dimensional (2D) view, but also straightforward for visual analysis of temporal events.

The 3D view approach visually represents the time in events as the vertical dimension. Compared to dynamic segmentation with temporal offset, the 3D view is better for areas

with dense linear features. Events in both 2D and 3D views can also be visualized in animation. In general, this study provides alternative visualization for events represented in linear referencing.

Keywords: visualization, linear referencing, temporal data, dynamic segmentation, animation

Researcher's Name, Title, Department Name: Lauren Leach-Steffens, Associate Professor, Family and Consumer Sciences

Project Title: A Comparison of Student Learning, Practice, and Awareness Outcomes in Family and Consumer Sciences using Traditional and Online Supplemental Course Materials, Phase 4

Type of grant - Date granted - Amount approved - Date completed: Applied Research Grant, Fall 2006, \$535, Fall 2008

Findings and Recommendations:

These funds were never used and should be reabsorbed by the Applied Research Grant pool. Although several methods were tried to increase the response rate, the voluntariness necessitated by Institutional Review Board guidelines plus the small class sizes (20-30 students per section), – resulted in sample sizes pretest-posttest of less than 10. These numbers do not support statistical significance on a t-test; therefore, the study was disbanded.

Jeffrey B. Loomis

“Post-Sabbatical Foragings Into Further Tennessee Williams Manuscripts”

Faculty Research – granted fall 2007 - \$2714.00 – completed fall 2008

In one respect, no trip for researching the manuscripts of Tennessee Williams could possibly prove more intriguing than this past summer's fifteen days in New Orleans. For, while I was spending my days looking at Williams manuscripts held by the Historical New Orleans Collection, I spent my nights in a hotel located on the very block of Toulouse Street where Williams himself lived during the 1930s. It was also fun to walk by Serio's Po'Boy Sandwich Shop, and realize that it was that business that probably gave Williams the surname of a minor character in early drafts of his play Summer and Smoke.

My research was also productive. As had also been true during two days I spent in March at UCLA in Los Angeles, I perused, in New Orleans, drafts that I had never seen before of the Williams-scripted movie Baby Doll and its companion playscript, Tiger Tail. This helped me finalize, in the months since, my article manuscript on the development of these two paired scenarios—much as some other New Orleans-located

sheafs have helped me to complete my discussion in print of the process out of which emerged Williams' leagued-together dramas Battle of Angels and Orpheus Descending, along with the movie version The Fugitive Kind.

I will probably need to return to New Orleans and UCLA for about 1 and ½ more weeks of 2009 researches. But I do thank the Faculty Research Committee for making the short 2008 UCLA trip and the same year's two-week New Orleans perambulations possible.

Dr. Jeff Loomis , Professor, English Department

“From Atlantic to Pacific, Tennessee’s Terrific”: New Cross-Country Treks In Quest of Williams Manuscripts”

Faculty Research Grant—Approved 10/21/09--\$2162—Completed 8/12/09

During this past year I visited three different sites to complete research on Tennessee Williams' manuscripts:

- In December 2008, I was at Harvard University (specifically, at the Harvard Theatre Collection), examining, for three days, manuscripts of Williams' play, The Rose Tattoo.
- In March 2009, I visited the UCLA Research Collections in Los Angeles, there continuing a process of examining the varied Williams manuscripts, of both plays and short stories, which that collection houses. Many of these prepare for Williams' A Streetcar Named Desire.
- In August 2009, I visited the Research Collections of the University of the South, in Sewanee, Tennessee. That school is the alma mater of Williams' grandfather, the Rev. Walter Dakin, whom Williams claimed as a strong influence. I read 120 of the 170 Dakin sermons that reside in the Sewanee archives. They seem to provide an interesting window on Williams' play The Night of the Iguana—for that play includes a character who is a 98-year-old poet, and that man influences the play's main character, a middle-aged renegade priest. What Williams seems to have done is to reverse, in his play, the age-identities and professions of two characters who are based on himself and on his own grandfather (who lived with the playwright until the older man died, at age 98). Such reversal of biographical antecedents seems a method by which he shows affection for his grandfather and yet quietly repudiates that man's religious world-view. He secularizes the age-level *grandfather character*, while also secularizing memories of his grandpa by secularizing the vocational *priest character*.

Mühsam, Armin, Associate Professor, Department of Art

“Peisaje - Interioare”

Faculty Research Grant 10/21/08 \$ 1932.05 9/16/09

Findings and recommendations

My proposed research was to produce as much new work as possible for my solo show in the Contemporary Art Gallery of the National Brukenthal Museum in Sibiu, Romania, held from July 17 until August 9, 2009. The exhibit, which occupied two large galleries, featured 28 paintings from the years 2002-2009. Three of these were brand new and were painted in the winter and spring of 2008/9. I had wanted to produce more, but my chairing of the budget committee and my service on Faculty Senate consumed quite a bit of my time so I decided to paint fewer but larger canvases (with my way of painting, it takes about 2-4 months until a work is fully matured and ready to leave the studio). I went to Sibiu to attend the opening and have to say, without wanting to boast, that this show was the one out of all my solo shows that I am most satisfied with. The curator, Liviana Dan, had arranged my work in several blocks or groups which revealed compositional and content relationships that I myself had not been aware of. It is also a good feeling to have had a solo exhibition in one of Romania's premier museums. I gave a press conference and the show received several favorable reviews, both in Romanian and German newspapers. If the committee is interested, I can provide photos of the show's layout and the opening reception.

The actual costs incurred run as follows:

a) Shipping: Maryville to Sibiu	\$ 2,521.04
Sibiu to Maryville	\$ 2,114.65
b) Supplies: Belgian Linen	\$ 140.76
Frames	\$ 353.67
Framing Hardware	\$ 22.88
Total	\$ 5,153.00

Applied Research Summary Abstract

Researchers: David Oehler, Chair of Communication, Theatre, and Languages
Pat Immel, Assistant Professor of Theatre
Shawn Wake, Technical Director/Performance Facilities Manager

Department: Communication, Theatre, and Languages

Project Title: Optimizing the production of blue light in live theatre.

Applied Research Grant awarded: April 10, 2008

Amount Approved: \$ 433

Date Completed: December 2, 2008

Findings and Recommendations:

The production of blue light to represent nighttime in live theatre is technologically problematic. Stage lighting instruments produce white light which is modified by the use

of color filters which remove non-blue wavelengths. Visual representation of nighttime often results in the use of lower power levels, which physically reduces filament color temperature and therefore reduces the amount of blue wavelengths produced.

This study tested the hypothesis that a relatively lower wattage lamp would need to be run at higher power (color temperature) compared to a relatively higher wattage lamp in order to produce a similar level of brightness (measured in lumens), thus producing more wavelengths in the blue portion of the spectrum. Since lamp life (longevity) is dependent upon lamps operating at high temperatures (the tungsten-halogen cycle), running lamps at a higher temperature has the added benefit of extending lamp life and reducing cost per hour.

In the first portion of the study researchers prepared 6 stage lighting fixtures with 575 watt lamps and 6 stage lighting fixtures with 750 watt lamps. The average lumen output was measured from a distance of 8'-9" at 100% intensity, 75% intensity, 50% intensity, and 25% intensity. Following this, each group of 6 fixtures was refocused to a single pool of light (approximately 6' in diameter) and the lumen output of those with 575 watt lamps was measured; the intensity level of the 6 fixtures with 750 watt lamps was reduced until the lumen output matched that of the first group and the intensity control level was recorded. At this point an "eyeball test" was conducted where – one color at a time – several different color filtering media were installed in the fixtures and the researchers (assisted by a couple of students who wandered in during the test) subjectively evaluated whether a color difference was perceptible to the naked eye, and if so, which color appeared "bluer."

In the second portion of the study two stage lighting fixtures were transported to a physics lab and the light wavelengths produced by various color filters were measured and recorded. In this phase of the study the 750 watt fixture's intensity was reduced to approximate the full intensity output of the 575 watt fixture. While there were measurable differences in the spectral output maps, the differences were not significant.

Conclusions:

The following practical conclusions were reached based on the "eyeball test:"

- G740 filter – the dimmed 750 watt fixture output appeared greener
- R80 filter – the 575 watt fixture output looked redder
- R62 filter – the dimmed 750 watt fixture output appeared yellower and the 575 watt fixture output appeared whiter
- G830 filter – the dimmed 750 watt fixture output appeared yellower
- R67 filter – the 575 watt fixture output appeared bluer

For the five observations reported above, the lower wattage lamp provided "better" blue light than the higher wattage lamp (the R80 color filter being the exception).

The observable color differences between a full-power 575 watt lamp and a dimmed 750 watt lamp are not significant. However, the benefits of extending lamp life by operating

them at high temperature suggest that using a lower wattage lamp at a higher power is a desirable practice.

Itemized list of expenses incurred:

HPL lamps, 750 watts	6 @ \$16.00	96.00
HPL lamps, 500 watts	6 @ \$16.00	96.00
Roscolux color media 62 – Booster Blue	5 @ \$ 5.85	29.25
Roscolux color media 67 – Light Sky Blue	5 @ \$ 5.85	29.25
Roscolux color media 80 – Primary Blue	5 @ \$ 5.85	29.25
Gam color media 830 – North Sky Blue	5 @ \$ 5.85	29.25
Gam color media 740 – Off Blue	5 @ \$ 5.85	29.25
Gam color media 850 – Blue (Primary)	5 @ \$ 5.85	29.25
Shipping		34.33
Total		\$ 401.83
Unused funds:		\$ 31.17

Abstract

Town, Stephen (Professor of Music in the Department of Music). “*The Three Holy Children*’ by Charles Stanford: Extant Scores and Manuscript Study.” Fall 2008.

During the summer of 2009, Dr. Town conducted archival research in London at the British Library (St Pancras) and the Royal College of Music Library (South Kensington) on the autograph manuscripts of *The Three Holy Children* (1885), a sacred oratorio for soloists, chorus, and orchestra, by Charles Stanford (1852-1924).

Because the British Library and the RCM Library share the custodian responsibilities for many of Stanford’s manuscripts, it was necessary for Dr. Tow to travel to England to conduct an in person examination of the autographs, for none of Stanford’s manuscripts have been published in any form (holographic reproduction, etc.) and archival research is the only recourse for those who wish to view a composer’s constant revision, development, and refinement of ideas. The act involves cataloguing the details of a manuscript, or checking the work completed by another scholar, while studying the calligraphy and emendations of a composer for evidence of his creative process, compositional procedure, and working methods.

Dr. Town’s research uncovered several scores of *The Three Holy Children*. A piano-vocal edition was released by Stanley Lucas, Weber & Co. in 1885, but the autograph from which it was derived has gone missing—most unfortunate because it could have revealed invaluable information vis-à-vis the published score. Conversely, the autograph full score is extant, housed in the Royal College of Music (as MS 4162), and reveals a number of emendations. While it is possible that the emendations were made after an initial performance to tighten the musical discourse between numbers or in them, or to tailor a particular number for a different singer, it is more likely that they were executed for a much later presentation. Inasmuch as manuscripts of another full score exist, in which the musical material has been altered significantly, it would appear that the

emendations on the RCM autograph represent Stanford's initial tentative ideas for revision, which became much more extensive at a later date.

The latter score, in two volumes (MS Mus. 901-902), is deposited in the British Library (as MS Mus. 901-902). These are a conflation of two different manuscripts, an (1885) version in Stanford's hand (autograph) and a later revised version in the hand of a copyist. Together they reflect the changes that resulted in a 1902 new edition of the piano-vocal score. The newly-written manuscript sections were inserted into the autograph (the old sections were discarded) in movement sequence and bound together with the pre-existing portions. As a result, there are fifteen numbers in the revised version versus the seventeen in the original. In some instances, corrections were written directly into the autograph by Stanford or he deleted measures by cancelling them with pasedowns (collettes) or with mark-throughs. Clearly, the new version is a full realization of the penciled-in notes on pp. 180(v)-182(v) of the RCM autograph.

Such emendations are rare in the autograph manuscripts of Stanford, because his compositional gift was so remarkably fluent that it enabled him to compose straight into score without the prior use of sketches and drafts. Nevertheless, here we have revisions to the autograph of 1885 that were transferred and more fully completed in the manuscripts that led to the published version of 1902. What were the exegeses that caused Stanford to alter his score? Did he rewrite it to accommodate specific singers, a particular venue, or to improve some perceived deficiency? These are not questions that can be answered at this writing. However, it is clear that in the 1885 version of *The Three Holy Children*, Stanford produced a work that exhibited novel features, e.g. an innovative use of the orchestra, far surpassing the contemporary English oratorio. It was this version that influenced Edward Elgar, who played in the performance by the Birmingham Festival Choral Society on 7 October 1885, which is apparent from a note on a sketch for *The Dream of Gerontius*. That evidence alone makes the music and score of the greatest significance to musicologists.

20 August 2009
Dr. Stephen Town

Research Report

Researchers Names: Thomas B. Smith, Assistant Professor
Robin Gallaher, Interim Director of Composition

Project Title: The Impact of Participation in a Mentored Learning to Teach
Experience
on Prospective College Composition Teachers

Grant Details:
Type of Grant: Applied

Date of Grant: April 10, 2008

Amount: \$850 (\$174.98 spent in equipment; no other money spent)

Completed: January 10, 2009

Findings and Recommendations:

The purpose of this study is to examine the experiences of students and faculty in an innovative class designed to help graduate students prepare to teach college composition in critical, reflective ways. Using a multiple case study design, the researchers examine how five student-mentor pairs worked to help the students prepare to teach future college-level courses. The field experience under study was attached to a graduate level course in composition theory and learning to teach. Both the students and their mentors are from a variety of backgrounds professionally and personally. Data sources include weekly reflection papers from the students, notes on informal conversations between the mentors and the course instructor, final papers from the students, and post-interviews with both the students and the mentors. These data were used to examine the experiences of the faculty as mentors and the students as prospective teachers. Through a systematic analysis that involved multiple readings and codings of the data and incorporated a number of potential frameworks, a vision of the participants' understandings of and involvement in the process of mentoring and/or learning to teach emerged. Drawing on these findings, both successes and problem spots were identified that all have importance in the larger discussion of mentoring and learning to teach. Of special note were the differences of perception of the mentoring relationship between the students and the mentors and the ways in which the students self-identified as teachers and resisted that identification by themselves and others.

Applied Research Final Report

1. Researchers' Name, Title, Department Name

Dr. Ming-Chih Hung, Associate Professor, Geology/Geography, GS1337, X 1797

Dr. Yi-Hwa Wu, Assistant Professor, Geology/Geography, GS 1075, X 1869

2. Project Title

Using Color-Infrared Photography to Create Color Vision Impairment Friendly Character Maps

3. Type of grant - Date granted - Amount approved - Date completed

Applied Research (A101-31032-222 AR-COLOR INFRARED), approved Spring 2008 with budget \$2,282, completed Fall 2010.

4. Findings and recommendations. (Be brief, not to exceed 300 words)

Pictures of several grass fields in campus were taken from around 20-30 feet above the ground. These pictures include normal pictures (visible light) taken with a normal commercial digital camera, as well as near infrared pictures taken with a modified

commercial digital camera. These two types of images were processed and stacked together to form a multispectral digital image containing four layers, blue visible light in the first layer, green visible light in the second layer, red visible light in the third layer, and near infrared in the fourth layer.

A character map was created from the multispectral image. First, the multispectral image was classified into 60 spectral classes. The assignments of characters were based on the positions of each class on the feature space plot. For healthy vegetation, letters on the early alphabetic order were assigned. For soil or yellow vegetation, letters on the late alphabetic order were assigned. For man-made features, symbols were assigned. The resultant character map needs only one color: black. Therefore, it is very vision impairment friendly. In addition, because of using only one color, it is also very suitable for field work because of easy recognition and no need for comparisons between colors during sometimes extreme field conditions.

Recommendation for further research is to increase the availability of characters, such as letters or symbols for more classes. Currently there are only 60 different characters. It is desired to have more than 60, maybe 90 different characters for better distinguish between classes.

5. Presentation

We have submitted an abstract (title “Character maps from close range multispectral images”, currently under review) for a presentation in ASPRS (American Society for Photogrammetry & Remote Sensing) 2011 Conference to be held May 1 – 5, 2011 in Milwaukee, WI.

Summary of the Budget Expenditures

Itemized expense:

GPS units and accessories	\$ 1,814.33
printing	\$ 82.94
supplies	\$ 19.98
student labor	\$ 280.00

total	\$ 2,197.25

Total approved budget: \$ 2,281

Remaining fund: \$ 84.75