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Correction: Spring 2014 Issue // Table of content page: Tonya Hensley, DNP (Family Nurse Practitioner)

Special Thanks to Larry Smith for providing photographs for our 2014 Summer issue!

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How has your Master's Degree helped you?

It was a requirement for applying to many Ph.D. programs. I have also learned a great deal about the discipline while at ETSU and that persuaded me to pursue a career in academia.

What professors/advisors were instrumental in helping you?

Dr. Andrew Herrmann, Dr. Carrie Oliveira, and Dr. Wesley Buerkle.

What doctoral program will you be attending?

Louisiana State University, Department of Communication Studies, concentrating in Performance Studies.

Will you receive funding?

Yes, I will be fully funded for four years.

Why did you choose to pursue a doctoral degree?

I enjoy research and expanding the field of communicaiton studies, especially in regards to performance. I have always been a performer and wanted to evaluate the implications of that and work with other performers. It was a passionate and logical next step towards a career in academia while influencing the next generation of performance studies scholars and expanding the current research base of a fairly new study.

Will you pursue/expand on your topic you worked on during your Master’s?

There will be elements of my Master’s thesis in my doctoral program and dissertation, but the actual topic will take a varied look as it transforms into a nontraditional paper, subsequent performance of my thesis, and expansion into the dance world.

What advice would you give to current graduate students who would like to pursue a doctoral degree?

Do everything you can, even when you don’t want to. The more you do and give back to the academy, the more it will give back to you. Simple costs and rewards exchange. Also seek out people who want the best for you. They will help you when you are striving for the best.

I conducted face-to-face and online surveys that measured humor, likeability, and social deviance. I found that viewers like socially deviant characters because they constantly break the rules and surprise viewers. These findings guided Martin as he created the characters for his sitcom. “I found you needed to have a balance between socially deviant characters and normal people.” He incorporated two socially deviant characters into his script.

After writing his sitcom, which he titled Not Dead At All, Martin moved into the second part of his project — production. First he had to find a crew to help him shoot the pilot episode of his sitcom. “I was really lucky and got an amazing crew,” he said. A 17-person crew comprised of faculty, undergraduate and graduate students assisted Martin. He held three casting calls to select actors for his production. He also scouted for locations and gained sponsorship from local restaurants to feed his crew. “It’s a long process, but it’s worth it,” he said.
Martin’s crew had various levels of experience, and he helped train and supervise all crew members. “He was really generous with everyone; the way he worked with people on his project was amazing,” Ms. Lange said. Some crew members were both behind and in front of the camera. Martin shot his sitcom in four days after months of planning. He noted that this part of the process was his favorite. “I like all the parts, but the funniest part is when you are shooting, when you suddenly say “action” and the characters are out of your head and are real.” The third and final part of Martin’s project was creating “the bible” for his sitcom. The bible is a document made for television studios to help creators sell their ideas. It explains the sitcom’s characters, their relationships and the possible plot lines that can develop over the seasons.

“I am very proud of it,” said Martin. He incorporated several Hispanic characters into the sitcom and hopes when the sitcom is crafted for television it will be in both Spanish and English. He plans to sell his sitcom to a major television company and hopes to one day see it on air. “He really pushed himself, and we can’t wait to see where this project goes,” said Ms. Lange.

“I think he is a great example of the best graduate student we can have here at ETSU. We have great potential, and Martin maximized the resources available to him.” Martin won the Communication Department’s Outstanding Graduate Creative Achievement Award. He is moving to New York and plans to get a job in television production. “I am going to go there, be persistent and charming until I get my first opportunity, and I will start climbing,” he said.

Specifically, having a Master’s Degree helped me in two significant ways. First, the M.A. provided me the opportunity to prove I could do the work necessary to succeed in the world of professional history. ETSU’s History Department had a strong focus on developing their students into professional historians and I took full advantage of those opportunities. While at ETSU, I presented at five conferences, led seven guest lectures, wrote an M.A. thesis, and earned acceptance letters to three Ph.D. programs, none of which would have been possible without the skills and guidance ETSU offered. Second, ETSU afforded me the opportunity to assist, as a Tuition Scholar and then a Graduate Assistant, six different History courses in the four semesters of my enrollment. This experience has allowed UGA’s History Department to give me a promotion of sorts. Typically UGA graduate assistants spend their first year grading. However, the experience I earned at ETSU helped the History Department’s decision to change my role from a grader to a leader of discussion sections. This experience allowed me to for my Assistantship afforded me the opportunity to work with someone else’s, a realization I have been on both sides of. It was a significant accomplishment of my thesis, but reviewing conference papers and Ph.D. writing samples all the while guiding me through the myriad difficulties of studying the controversial Third Reich. If I had just gone to classes and interacted with professors at the bare minimum I would likely not be in UGA’s Ph.D. program, much less doing as well in it as I am presently.

What advice would you give to current graduate students?

I would say that any graduate student needs to take full advantage of the professors in their department. I cannot say enough good things about the professors at ETSU’s History Department and the numerous ways they enabled me to succeed in this profession. Every professor I was assigned to for my Assistantship afforded me the opportunity to participate in guest-lecture. Dr. Daryl Carter was instrumental to my American History minor field. Dr. Brian Maxson, as Graduate Coordinator, introduced me to many aspects of professional history and allowed me the distinct pleasure of maximizing my classroom opportunities. Finally, Dr. Stephen Fitz, my thesis chair, was of fundamental importance to not only the accomplishment of my thesis, but reviewing conference papers and Ph.D. writing samples all the while guiding me through the myriad difficulties of studying the controversial Third Reich. If I had just gone to classes and interacted with professors at the bare minimum I would likely not be in UGA’s Ph.D. program, much less doing as well in it as I am presently.

Anything else you’d like to share?

The final thought I would like to share is one of gratitude. I came out of UGA’s undergraduate program in 2009 and although I had accepted to two M.A. programs, scholarships were unavailable. I spent two years working an I.T. job and substitute teaching to save up for Graduate School, jobs that offered few opportunities to grow as a historian. When I reapplied to M.A. programs in 2011, ETSU gave me a chance for which I am eternally grateful. Being in a Graduate Program is truly a privilege, not a right. I could easily be doing something drastically unrelated to History, but thanks to ETSU I am doing well in the Ph.D. program of a high-level research university. Once given a chance, I worked my hardest to prove that I deserved that chance. I squandered no opportunity, explored every avenue, and spent a considerable amount of time in my professors’ offices. I encourage all students present in graduate work to take full advantage of their opportunities if not for their own personal gain then for the sheer fact that their opportunity came at the expense of someone else’s, a realization I have been on both sides of. I also encourage the alumni of UGA’s Graduate School to promote ETSU as much as they can, even if it is just in casual conversation.

Anything you can do to promote ETSU can only help boost enrollment and benefit future scholars, which will only make your degree all the more impressive. In closing, I want to formally thank ETSU’s History Department and the Graduate School for giving me a chance. I will put all of my efforts toward demonstrating, through my work at UGA and beyond, that ETSU’s vote of confidence in my candidacy was rightly placed.

In these two ways, the History M.A. at ETSU has helped me tremendously on my path to becoming a professional historian.
Olusegun Adeboye came to ETSU from Lagos, Nigeria to study Biology, but he never expected to gain experience with advanced lab equipment and techniques and to be a part of important new developments in research regarding grapefruit enzyme adaptability. During the last two years, Adeboye has pursued a Master’s Degree in Biology with a concentration in Biomedical Science.

His thesis began as a natural contribution to the current research under a National Science Foundation Grant directed by Dr. Cecilia McIntosh. The members of the research team are studying the function of various amino acids in how a grapefruit enzyme works. The teams’ anticipation is that by studying the function of the enzymes, they may contribute towards future efforts for custom-designing enzymes to make products for human consumption.

Grapefruit is widely known to have various health benefits, and the flavonoids found in the grapefruit and all other plants have been linked to the prevention of many illnesses. Over 8,000 flavonoid compounds can be found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount found in nature and vary in amount.

Adeboye chose the enzyme and the amino acids for his research. He chose three amino acid residues based on their different chemistries and characteristics. He changed the three different amino acids in his enzyme separately to examine the reaction and level of compatibility.

His first two attempts resulted in the mutant enzymes losing all function with significant findings showing the potential impact of changing one amino acid. The third attempt showed sustained function of the enzyme at 65%. This mutant enzyme showed a preference for a different flavonoid compound.

Although his initial hypothesis was that the mutant proteins would attach sugars at different points and behave differently, he found that his active mutant enzyme attacked the sugar at the same point. The first two trials indicated, however, that changing amino acid residues can stop activity of the enzyme. The third trial showed that a mutant enzyme can have its own preference for specific amino acid types. This preference indicates that researchers may be able to make new enzymes.

Dr. McIntosh said of Adeboye, “He’s the first graduate student to focus a thesis on this aspect of the grant.” He paved the way for other students, like undergraduate summer research student Lisa Carter, to expedite the process of testing the effects of changing amino acids. His work during the last two years has allowed other students working in the lab to complete the same process in just a few months.

Lisa attends Vanderbilt and is at ETSU for a summer internship funded through the National Science Foundation’s Research Experience for Undergraduates program during which she has been able to expand Adeboye’s work and branch out into changing other types of amino acids. The team is comprised of three undergraduate and four graduate students as well as one post-doctoral researcher. Dr. Shivakumar Devaiyah (post doc) has been a mentor and supervisor for the team under Dr. McIntosh’s guidance and supervision, and he conducts his own research full-time in the lab. The team holds weekly meetings during the school year to present updated research findings, discuss future directions, and discuss journal articles.

Adeboye already presented his research at the Phytochemical Society of North America in August, 2013 and presented again in August, 2014. He has also presented at the Appalachian Student Research Forum and has shared his findings at a departmental seminar at ETSU. He was accepted to a Ph.D. program at Virginia Tech in Plant Biochemistry in the Molecular Plant Sciences in fall 2014 and feels prepared for the research demands because of the skills he acquired through his experiences during the past two years at ETSU.

Dr. Cecilia McIntosh, Ph.D., Dean, School of Graduate Studies

by Brandy Nickels/
Teaching Children to Read: The Importance of Knowledge Base for Pre-service Teachers

By Brandy Nickels

Ruth Facun-Granadozo began the Ph.D. in Early Childhood Education with many questions and concerns about literacy instruction. Before coming to ETSU, she began teaching children to read in the Philippines and used the outdated resources available for literacy instruction. The best textbooks for literacy instruction were from 2002, and her school did not have funds available to buy the latest editions. She also trained teachers based on the methods she used and considered successful, but she had questions about where teachers should start in teaching beginning readers. The materials featured popular best practices for teachers but provided no guidance on literacy instruction. Her goal was to learn how to train teachers to teach reading effectively in various languages. She was aware that her questions about the foundations of literacy learning were relevant questions for beginning literacy teachers everywhere.

After coming to ETSU, Ruth worked with Dr. Kathryn Sharp to identify the aspects of literacy instruction that were most misunderstood by pre-service and beginning reading teachers in the US and to develop a topic for her dissertation based on improving those aspects, the chosen areas being morphemic awareness, phonemic awareness, and phonics.

Dr. Sharp states that nation-wide, teachers are being retrained for teaching a skill they acquired long ago. Without knowledge of these, many teachers are making mistakes in explaining reading concepts to children. The inconsistencies between spelling and pronunciation in most English words require teachers to be aware that young readers may try to generalize pronunciation rules for certain morphemes or parts of words. Teachers often find difficulty in explaining the differences between spelling and sound. In her initial research, Ruth discovered that the concept of expert blind spot proposed by Petrozino and Nathan (2003) is manifested by her participants. She explained, “since it [reading] became very automatic for us, we are no longer able to see” how the process works. She emphasized the inability for native speakers of a language to see how their language works at the most basic level. This phenomenon is common, because learning of a native language happens without attention to the details. Teachers cannot simply think back to their own first experiences and must consult the current best practices for teaching a skill they acquired long ago.

As they progressed through the assignment, every pre-service teacher reported feeling more confident in their knowledge. Many participants who were initially hesitant about the module and doubtful that they could understand the concepts felt that their eyes had been opened to reading in a new way and that they could teach the concepts with more confidence. Not only did morale improve, but every participant scored higher on the module test from the first to the last testing period. They were required to score at least 90% accuracy in order to get credit for the course. Ruth conducted interviews with each participant and asked for feedback about their progress. She found that most subjects understood the importance of learning the concepts, but they also shared feelings of anxiety about the content and stated that they were not comfortable with their understanding of the concepts. In addition, many pre-service teachers in the Early Childhood Education program expressed anxiety about putting these concepts to use in the classroom.

She stated, “If teachers have that expert blind spot, they can no longer design developmentally appropriate learning experiences.” To combat the blind spot, pre-service teachers must learn the concepts behind their own linguistic knowledge.

Literacy courses are required for pre-service reading teachers so that they understand how children learn to read for the first time. Phonemic awareness, morphemic awareness, and phonics are central concepts in literacy textbooks, although many teachers are retrained after starting to teach full-time. Ruth’s goal was to investigate pre-service teachers’ descriptions of their experiences as they learn the concepts of phonemic awareness, phonics, and morphemic awareness. Further, she wanted to see how their experience affected self-perceptions about their ability to teach children to read.

She utilized multiple case studies consisting of 8 pre-service teachers taking their first Literacy Methods course. The participants utilized an online module developed by Dr. Sharp which contained tutorials and tests focused on phonemic awareness, phonics, and morphemic awareness. The participants were tested at intervals during the semester and were required to score at least 90% accuracy in order to get credit for the course. Ruth conducted interviews with each participant and asked for feedback about their progress. She found that most subjects understood the importance of learning the concepts, but they also shared feelings of anxiety about the content and stated that they were not comfortable with their understanding of the concepts. In addition, many pre-service teachers in the Early Childhood Education program expressed anxiety about putting these concepts to use in the classroom.

Reference

Mark Chiang began his studies at ETSU as a part of a unique program. He began looking for opportunities to study sports performance because he was a strength and conditioning coach for Taiwan’s national women’s basketball team. His position focused on improving performance of athletes by developing strength and conditioning programs. He initially came to ETSU to attend a sport science conference hosted by ETSU’s Center of Excellence for Sport Science and Coaches’ Education in 2010, but applied and was accepted into the new Ph.D. program specializing in Sports Physiology and Performance, developed by Dr. Michael Stone, which was unique among the programs available in the United States. “Dr. Stone is the reason why I’m here,” he said. Mark became the strength and conditioning coach for the ETSU men’s soccer team as a part of a Graduate Assistantship.

His goal as a sport scientist was to improve game performance by creating custom strength training workouts and conditioning drills. For his dissertation, he explored how muscular strength and power affects agility in soccer athletes. His topic came from the doubts many people have about the impact of strength training for soccer athletes. He stated that coaches often have questions about the use of valuable time in the weight room, and if the time spent there is worth the results during competition. He wanted to prove that strength positively impacts agility, or the ability to change directions quickly.

He worked under the supervision of Dr. Kimitake (Kimi) Sato to develop the techniques and instrumentation used to properly measure soccer players’ change of direction performance. Mark set out to discover how he could prepare athletes for competition by increasing their agility quickly and effectively. He needed to measure certain strength characteristics in order to study how muscular strength and power impact an individual’s agility. For this purpose, he used the monitoring program created by Dr. Stone which involved testing for athletes twice per semester, in addition to the completion of health questionnaires.

The tests he developed along with Dr. Sato were included in the monitoring program and were the source of data for his dissertation. One of the three goals of his research was to examine how the differences in strength between dominant and less dominant sides of the body correlated with an athlete’s agility. He also wanted to know if overall strength made a difference.

The first part of his research revolved around the athlete’s dominant side. He classified the 24 athletes in his sample group as more asymmetrical if they had at least a 6% difference in strength between the right and left side of the body. Athletes who had less than 4% difference were considered more symmetrical. The test results showed that the athletes who were more asymmetrical in strength on right and left sides performed the same as more symmetrical groups. The magnitude of asymmetry did not affect the final performance of the athlete.

In the monitoring program, Mark tested the athletes from the men’s and women’s soccer teams. The battery of tests included body composition measurements, hydration status, various types of vertical jumps, isometric mid-thigh pull, and sprints using a force plate. The isometric mid-thigh pull test measured the amount of force produced as an athlete pulled on a stationary bar while standing on a force plate. This test measured the amount of force an athlete could produce. The force plate was also used in the vertical jump tests to measure how much force was applied during various jumping maneuvers.

A force plate measures the push and pull as a person moves while standing on it. When athletes take off after making contact with the force plate, it measures the amount of force they produce as they push off.

In the change-of-direction test, athletes ran at top speed for five meters, “cut,” or stopped to change directions on the force plate, and then sprinted back to the starting point. As they made the cutting motion, the plate measured the amount of force, the number of milliseconds their feet were on the plate, and the direction of the force applied.
Their acceleration was measured at three meters so that Mark could not only measure their initial acceleration but also their reacceleration after cutting. Mark included members of the women’s soccer team for this test in order to compare the performance between sexes. He conducted the same sprint test for female soccer athletes and normalized the data by incorporating physical size, weight, and muscular differences between males and females.

His goal as a sport scientist was to improve game performance by creating custom strength training workouts and conditioning drills. //

After analyzing data from all of the observations, Mark found a positive correlation between the amount of force generated and the overall agility of the athlete. This means that lower body strength and power, regardless of gender, positively affect an athlete’s ability to move and change directions quickly.

When he compared male and female athletes in the change-of-direction test, Mark was surprised to find that although the amount of force generated was similar in both groups, male athletes tended to stay on the force plate longer during the cutting maneuver. The extended foot contact time of males correlated to their faster acceleration and better overall performance. The strategy allowed them to produce additional force and prove more agile. His research not only impacts the ETSU soccer program but it is also applicable to all sports as it focuses primarily on agility. In most sports, athletes are required to make quick decisions and change directions often. The cutting maneuver is the action of changing directions, and the greater the strength of the athlete, the faster he/she can move to steal the base, make the layup, or make a first-down. His work reinforces the importance of strength training for all athletes, even if it requires designated time away from the game. Dr. Stone, who supervised the research, emphasized the program’s uniqueness. “We [the program attendance] could easily double, attracting people from all over the country,” he said.

The Ph.D. in Sports Physiology and Performance was the first of its kind and serves as a model for other institutions. When it was created, it was the only program that investigated sport science within current teams and athletes. Mark’s questions were perfect for the program. As a part of the program, Mark took a leadership role when he decided to bring his new colleagues and knowledge to his home country. In addition to his work with the athletic teams on campus, Mark coordinated a conference in Taiwan with over 200 attendees last year. Many ETSU faculty members attended, and the conference focused on both theoretical and practical aspects of sport physiology and performance. He has published three articles and has presented his research. Mark graduated and is currently a post-doctoral researcher at National Taiwan Sport University, which is located in Taoyuan, Taiwan. //

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