Creative Approaches to Doctoral-Level Education

A panel discussion of interdisciplinary models of education and innovative approaches to doctoral study.

CAPCSD
April 19, 2012

The Panel

• Judith Page, PhD: Director of the Division of Communication Sciences and Associate Professor in the Department of Rehabilitation Sciences at the University of Kentucky. Current Chair of ASHA’s Council for Clinical Certification.
• Peggy Nelson, PhD: Associate Professor and Chair of the Department of Speech-Language-Hearing Sciences at the University of Minnesota.

The Panel

• Melody Harrison, PhD: Professor of Speech and Hearing Sciences at the University of North Carolina, Chapel Hill.
• Paige Shaughnessy, PhD: Professor and Graduate Program Director in the Department of Communication Sciences and Disorders at Loma Linda University.

Ph.D. in Rehabilitation Sciences

A Multi-Disciplinary Multi-Institutional Doctoral Program

Creative Approaches to Doctoral-Level Education

Doctoral Program in Rehabilitation Sciences
University of Kentucky

UK

April 19, 2012

The Disciplines

• Athletic Training
• Communication Sciences & Disorders
• Occupational Therapy
• Physical Therapy
The Institutions
- University of Kentucky: degree-granting institution
- Eastern Kentucky University: partner institution
- Murray State University: partner institution
- Western Kentucky University: partner institution

Our Vision
Our program is dedicated to the idea of interdisciplinary service delivery, research, and education.

Organization

Our Model
Criteria of the Next Environment (CONE) Model
- Focuses attention on the demands of the students in the anticipated environments in which they will be working

CONE Competencies
Teaching
- Lecturing & Laboratory Supervision
- Teaching Apprenticeship
- Test Preparation
- Editing Student Work

CONE Competencies
Writing
- Non-data-based Article
- Data-based Articles
- Grant Reviewing
- Grant Proposals
CONE Competencies

Scholarship

• Inservice
• Conference Presentation
• Research Design & Implementation
• Consulting
• Manuscript Reviewing

Program Requirements

• Rehabilitation Sciences Core Courses (16 credits)
• Critical Appraisal of Research
• Research in Rehab Sciences
• Rehab Theories & Applications
• Pre-Sems (covering research, grant writing, pedagogy & academia)
• Research Methodologies/Stats (10 credits)
• Discipline-Specific Courses (9 credits)

Program Requirements (cont)

• Cognate Courses (9 credits)
• Research Apprenticeships (9 credits)
• Teaching Apprenticeship (2 credits)
• Dissertation Credit (18 credits)

Unique Components of the Program

• Chair/co-chair (2 disciplines)
• Core courses available via interactive TV
• Some other courses available via distance
• Courses may be taken at partner institutions
• All core courses taught by at least two disciplines
• MOU to return partial tuition to cooperating institution to reimburse faculty instructional activities
• Students complete annual self-evaluations of progress on CONE model (committee reviews)

Our Accomplishments

• Admitted 1st cohort of 8 students in Fall 2000
• 24 graduates to date (9 in CSD, 8 in PT, 4 in OT, 3 in AT)
• University faculty (some have been promoted), administrators, researchers
• Average completion time is around 10 semesters
• Currently 41 students (14 in CSD) – about half are part-time

Advantages

• Helps with Faculty Shortages: Partner Institutions are able to use the program to “grow their own” faculty members
• We Put Our Money Where Our Mouths Are: We don’t just preach interprofessional, we live it
Identifying the Best Candidates

- When to identify the best student candidates
  - In our experience, at the end of the first year or mid-year second year, based on assignments that involve looking at original literature.
  - Our best candidates have self-selected well so far, based on research papers and curiosity

Funding the Ideal Candidates

- Our experience with the NIH F30:
  - If a student has not had any previous predoctoral NRSA support (on a T32 training grant or on an individual NRSA) he/she is eligible for up to 6 years of support on the F30.
  - However, it is important to make sure that the amount of time requested corresponds to the amount of research/training proposed.
  - AND the dual AuD/PhD programs may not be as familiar for reviewers, who are used to other dual degree programs, like a MD/PhD training program.

- When to declare the joint degree
  - Declaring during the second year allows for an efficient program
  - Once they are accepted into the formal AuD/PhD program, then we have committed to find funding for them for the remainder of their degree

- Funding through teaching:
  - We want our future faculty to have extensive teaching experience. However, our budgets have been cut drastically in recent years. Ideas for preparing excellent teachers will be discussed.

- Also, the research proposal must be described in surprising detail.
- And to be eligible for the F30, the dual degree program has to be integrated, which typically means that both degrees are conferred at the end of training and not received sequentially.
Making sure the students are prepared for success in faculty positions:

• We use regular proseminar meetings with all PhD students to stress issues affecting success of assistant professors, including
• Interdisciplinary work, and its importance now and in the future
• International awareness
• Ethics
• Developing a productive line of publishing
• Planting the seed for postdoctoral research experiences

Speech and Hearing Sciences

• Speech and Hearing Sciences is one of six Divisions in a Department of Allied Health Sciences within the UNC School of Medicine.
• However, Speech and Hearing students were all considered to be in the Graduate School….not the SOM. AuD now in SOM
• The Faculty were accountable to both the Graduate School and the School of Medicine.

PhD in Speech and Hearing Sciences

It Was the Best of Times.............
Permission to initiate a new PhD program was granted by the Board of Governors in November 2000. The first cohort of 6 students was admitted Fall 2002.

It Was the Worst of Times.............
But, no additional resources, faculty positions or dollars were allocated.

The Challenges

• How do you build a high quality PhD program onto master’s programs in speech-language pathology and audiology without any additional resources?
  – Capitalize on what you have done well in the past. (for UNC-CH that was Early Intervention)
  – Investigate what has and has not worked
  – Work very hard
  – Collaborate, collaborate, collaborate

Approaching the Challenges

• UNC-CH’s emphasis on Early Intervention was well-respected nationally.

• One of the key characteristics of our Master’s programs was collaboration with other programs on campus (SOE, FPG Child Development Center, Occupational Sciences, SON, School Psychology and Developmental Psychology, SOM) on personnel preparation grants, research, shared course work etc.
Worked to Understand What Success Looked Like...and Didn’t

- Learned about causes of student attrition, for example:
  - lack of independence in selecting a course of study
  - lack of connectedness to faulty & other students (nationally 50% leave without graduating)
- Studied attributes of successful programs
- Faculty retreat focused on what had been successful in the faculty’s own programs and in those we admired

The Vision
To be one of the nation’s preeminent graduate programs in speech and hearing sciences where future leaders in research, teaching, and clinical scholarship are developed and nurtured, and where discovery of new knowledge promotes better understanding of communication sciences and disorders.

Underlying Program Tenets

I. Small number of required with students from multiple disciplines
   - 3 sem hrs Grant Writing
   - 3 sem hrs Personnel Preparation,
   - 3 sem hrs Research A (large group quantitative)
   - 3 sem hrs Research B (survey and single subject)
   - 9 sem hrs upper level statistics
   - 6 sem hrs outside of S & H
   - 21 sem hrs in area of focus
   - 48 sem hrs

Provides opportunities to design a flexible course of study focused on the student’s area interest

Underlying Program Tenets

II. Careful matching of applicants with a faculty mentor. If an appropriate mentor is not available, the student is not admitted.

III. Purposefully creating a sense of belonging among entering students
   - Core courses
   - Pro-Seminars
   - Faculty/Student Forum

Underlying Program Tenets

IV. Capitalizing on Interdisciplinary strengths
   a. 25 interdisciplinary research projects
   b. 5 interdisciplinary Personnel Preparation grants over the past 10 years
   c. 24 other interdisciplinary activities
      - Auditory Neuroscience Journal Group
      - Autism Alliance
      - Carolina Institute for Developmental Disabilities
      - Feeding Interest Group

Student Demographics

- 33 Students admitted since 2002
- 4 Students withdrew
- 1 Student transferred to School of Public Health
- 0 Students have withdrawn in the past 6 years
  - 83 % retention
- 19 Students graduated
- 18 of graduated students are in academic or research-only positions
- 9 Students are currently enrolled
BA/BS to PhD
Minus an MA/MS in Speech and Hearing

- Standard III-A Implementation: The applicant must have transcript credit (which could include course work, advanced placement, CLEP, or examination of equivalency) for each of the following areas:
  - biological sciences
  - physical sciences
  - social/behavioral sciences
  - mathematics.

Courses in biological and physical sciences specifically related to communication sciences and disorders (CSD) may not be applied for certification purposes in this category.

- Standard III-B: The applicant must demonstrate knowledge of basic human communication and swallowing processes, including their biological, neurological, acoustic, psychological, developmental, and linguistic and cultural bases.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Language Acquisition</td>
<td>3</td>
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<tr>
<td>Phonetics</td>
<td>3</td>
</tr>
<tr>
<td>Speech Science</td>
<td>3</td>
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<tr>
<td>Intro to Audiology</td>
<td>3</td>
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<tr>
<td>Anatomy &amp; Physiology</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>15 sem hrs</strong></td>
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- Completion of all requirements in a doctoral Program of Study.

The PhD in Rehabilitation Sciences at
Loma Linda University

The Vision

- Develop an interdisciplinary research doctoral program
  1. that would integrate the rehabilitation sciences programs in the School of Allied Health Professions,
  2. that could be pursued by physical therapy, occupational therapy, and communication sciences and disorders,
  3. that would result in doctoral prepared ‘faculty’ with a heightened understanding of rehabilitation as an integrated team effort supported by original research
**The Mission**
Prepare researchers, educators, and administrators who will serve as leaders in the rehabilitation professions to further the teaching and healing ministries of Jesus Christ.

**The Evolution**
- 2001 approved by LLU Board of Trustees
- 2002 accepted first students (2) (Physical Therapy)
- 2003 accepted 2 students (Physical Therapy)
- 2004 graduated first student (Physical Therapy); accepted 1 student (Physical Therapy)
- 2006 graduated 1 student; accepted 1 student (CSD)
- 2008 graduated 2 students; accepted 5 students (3 Physical Therapy, 2 CSD)
- 2009 accepted 1 student (MD)
- 2010 accepted 1 student (Physical Therapy)
- 2011 accepted 1 student (Nutrition & Dietetics)
- 2012 accepted 4 students for fall (1 Physical Therapy, 1 CSD, 1 Occupational Therapy, 1 Nutrition & Dietetics)
- 2012 4 expected to graduate

**Curriculum**
- A minimum of 114 units beyond the bachelor’s degree is required for students holding a master’s or doctoral degree in a professional area;
- Up to 45 quarter units of graduate-level academic coursework may be applicable to the PhD degree.

**Three Core Areas of Study**
- Rehabilitation Science and Religion (30-42 quarter units)
- Electives (36-48 quarter units)
- Research and Dissertation (36 quarter units)

In addition to Research, the Rehabilitation Science core has four domains:
- **Domain 1:** Political and Professional Advocacy
- **Domain 2:** Theories and Applications in Health Care Systems and Delivery
- **Domain 3:** Determinants of Health Behavior
- **Domain 4:** Leadership and Higher Education

**Rehabilitation Science Courses**
- RESC 515 Political and Professional Advocacy in Rehabilitation (3 units)
- RESC 516 Practicum in Advocacy (1-3 units)
- RESC 519 Rehabilitation Theories and Applications in Health Care (3 units)
Funding for Graduate Students

- The SAHP Graduate Studies Committee has limited funding to support graduate students during their course of study. This is in the form of graduate student assistantships, research enhancement support, support for attending conferences where they present their research finding, and support for publication expenses and thesis binding.

Challenges

- Two masters –
  - Housed in the School of Allied Health Professions
  - Academically responsible to the Faculty of Graduate Studies
- A single-program department
- Chair is the advisor until the thesis committee is formed
- Thesis is directed by faculty from one of the other departments
- Budget