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Linking the Undergraduate Degree to the Graduate Degree: Core Curriculum Issues

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**LINKING THE UNDERGRADUATE DEGREE TO THE GRADUATE DEGREE:
CORE CURRICULUM ISSUES**

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There are many issues that relate to the efficacy of the undergraduate degree in the field of communicative disorders. Some have advocated for the elimination of the degree while others vigorously fight to maintain it. Some believe that there should be clinic associated with the undergraduate degree while others argue to have the degree but without clinic. Some state departments of education allow persons with an undergraduate degree in communicative disorders to practice in the schools, others do not. Colleges and universities are afraid that without an undergraduate degree program, their departments will be seen as vulnerable to elimination in the academy. Other colleges and universities want to close their undergraduate programs to concentrate on their master's and doctoral degrees, especially because of the shortage of doctoral level faculty to adequately staff all their programs. All of these issues and many more play into the debate about the continuation of the undergraduate degree in the field of communicative disorders. Today you are going to hear from three members of the Council who have very different viewpoints on the issue. We hope to stimulate discussion that will be productive in helping you and your departments determine the efficacy of your undergraduate degree in the field.

Pseudo Elimination of the Bachelor's Degree

Karen F. Steckol

I have long been an advocate of the elimination of the bachelor's degree. In its place I would put a degree in the liberal arts with a concentration in Communicative Disorders. First let me explain why I advocate this and then I will be more specific with how the degree should be configured.

First, over the years I have seen the difference between students who have been educated liberally verses those who have an undergraduate degree in Communicative

Disorders. The former think differently. In general, they approach a problem in a different way and devise more solutions with more creativity than students with an undergraduate degree in our field. This difference alone has prompted the admissions committee of my department to seek out students with other backgrounds for admission into our graduate program. Additionally, having students with other backgrounds in our program has greatly enhanced classroom discussion as they bring a different way of looking at issues than students with a more traditional speech-language pathology undergraduate degree.

Second, for reasons I can't explain, students without a background in our field consistently score higher on the GRE and MAT. I have wondered for a while why this happens but even after reviewing the data I have not been able to pinpoint any reason for this. What I think is happening, at least in my own mind, is that people educated in a more broad way are better able to either answer the questions correctly, or use deductive reasoning skills, taught as part of a liberal education, to give them the "edge" on answering questions.

Over the past ten years this philosophy has been adopted by many medical schools across the country. Where before most only admitted students with science backgrounds they now seek out students with more diverse academic credentials. When one talks with medical school admissions committees, they report that students who were from the "traditional" majors were less likely to be able to solve problems, have the type of personality to be considered a "good bedside manner", and in general much more rigid in their thinking.

And finally, I solidified my position on this issue from my experiences as being a Dean in three distinctly different settings. I was interim Dean of Arts and Sciences at Saint Louis University, a private Jesuit institution; Dean of Applied Science and Education at SUNY College at Buffalo, a seasoned urban academy, and Dean of Arts and Sciences at Cleveland State University, a relatively new urban institution.

At Saint Louis my Associate Deans were from Communication and Biology. At SUNY my associate dean was from Education. At Cleveland State, a much bigger enterprise (56% of the entire university) than all the others combined, my Associate Deans were from Political Science, Art, Psychology, Modern Languages, Communication and Anthropology. I also had the opportunity to interact often with various faculty from every discipline possible except for Law and Medicine. I have been responsible for "typical" departments like all the sciences, math, social and behavioral sciences, education, humanities and the arts, as well as those not usually "deaned" by someone so far out of the discipline such as Engineering, Business, Computer Information Systems, Criminal Justice, Physical Therapy, Nutrition, Hospitality, and Fashion, Nursing, and Social Work.

These experiences have given me the opportunity to see education from vantage points most people never have. Without a doubt, if I had critical issues to solve, difficult decisions to make, needed a solution that was unconventional, it was always the humanities folks who provided the insight into the issue that made the difference in my decision. (Just as an aside, if I needed something done, I went to the professions like, Nursing, PT, OT, and SLP.)

Given the above I set out to develop a hypothetical academic major that included all the characteristics I wanted in an undergraduate: one who could think critically, solve problems, was able to work with groups, understood the world around them, appreciated the need for information, would be tolerant of views other than their own, and give good oral presentations. So, what would my liberal arts education with an emphasis in speech-language pathology look like given these parameters? Below is an outline of my “perfect” course of study for future undergraduate majors in communicative disorders.

30 hours in the Arts and Humanities

- Art (3)
- Intro to Philosophy (3)
- Music (3)
- Logic (6) (through the Philosophy Department)
- English (6)
- Ethics (3) (through the Philosophy Department)
- Critical Thinking (3) (through the Philosophy Department)
- Comparative Religions (3)

21 hours in science and math

- Biological Science (6)
- Anthropology (3)
- College Algebra (3)
- Intro to Statistics (3)
- Principles of Human Geography (3)
- Environmental Geology (3)

24 hours in social/behavioral sciences

- Psychology (3)
- Business (3)
- Sociology (3)
- Political Science (3)
- Public Speaking (3) (through the Communication Department)
- Intro to Learning Strategies and Skills (3) (Psychology)
- America and the World (3) (Political Science)
- Human Development Across the Life Span (3) (Human Development)

21 hours in Communicative Disorders

- Normal Language Development (3)
- Phonetics (2)
- Anatomy and Physiology of the Head and Neck (2)
- Neuroanatomy (2)

Speech and Hearing Science (2)
Multicultural/Sociolinguistic Issues (2)
Language Disorders (2)
Introduction to Adult Speech and Language Disorders (3)
Intro to Voice, Fluency and Phonology (3)

Core Courses offered by Communicative Disorders Department
Intro to Communicative Disorders
Exceptional People
Sign Language

Sample electives to choose from: (Must take at least 24 hours)

Nutrition (3)*
Intro to Social Work (3)
Leadership (3)* (Business, Educational or Leadership through service)
Macroeconomics (3)* (Economics)
Computer Information Systems (3)*
Intro to American Culture (3) (American Studies)
Fundamentals of Information Literacy (3)* (Mass Communication)
Intro to Health Systems (3)* (Business)
Personal Health (3) (Health Studies)
Physical Education (1-3) (Physical Education and Leisure Activities)
Growing Old in America (3)* (Social Work)
Intro to Personal Financial Planning (3)* (Consumer Sciences)

Today just about every university has a mechanism for students to make a course of study unique to their needs. In our university it is called "New College." The student would work closely with New College personnel as well as faculty in Communicative Disorders to develop a special degree program just for them. Over time a "typical" program may emerge and that could be used as a basis for most students interested in this type of major.

If I were to be interested in this degree today, and of course hindsight is always 20/20, I would enter New College and take the 24 hours marked by an asterisk from the Elective categories. I am convinced that an undergraduate degree such as this would have been a better choice for me.

Because I have all three of my degrees in speech-language pathology I can see how narrow my education was. From having worked with people from almost every academic discipline, it was painful to finally see what I was lacking. I have grown much from my experiences and hope sharing them with you today has opened new ways of thinking about how our profession delivers its undergraduate education.

Incorporating the CSD Minor as an Alternative to the Undergraduate Major

Marc A. Fagelson

The articulation of an undergraduate Communication Sciences and Disorders (CSD) major with a graduate degree program of study starts with the assumption that graduate programs should offer undergraduate degrees in the major. While the undergraduate/graduate model is used by many institutions, the faculty resources required by undergraduate majors influences the resources devoted to the graduate students. Therefore, we question whether the value of an undergraduate degree in CSD justifies its existence in those programs that also offer graduate degrees. Because of related issues such as the shortage of PhDs and emerging areas in the scope of practice required by both Audiology and Speech-Language Pathology graduate students we suggest that a reasonable option to the major in such programs is a CSD minor.

A major concentration should provide graduates who proceed to the next level study (i.e., a graduate program) or the degree should be useful as an end in itself. The course material provided in undergraduate CSD degree program no doubt prepares the graduate for further study in CSD. As such, the CSD major fulfills the first objective by preparing students for graduate study in our programs. The undergraduate degree is far less adequate as an end in itself because degree holders must find a career on the fringes of the profession, sometimes at the expense of more qualified graduates.

A related issue concerns the suitability of non-CSD majors for admission to CSD graduate programs. Is the value of enrolling such students proportional to the correlation between their curricula to that of the CSD major, or does the academic diversity and varied experience they demonstrate enrich our graduate programs? Anecdotal evidence suggests that many applicants to CSD graduate programs from other disciplines score higher on the GRE, take more classes in the bench sciences and mathematics, and are more advanced writers than CSD majors. The diverse academic backgrounds of non-CSD degree holders would appear to serve such students well as they bring to the class and clinic an understanding of perspectives and material that often frustrates CSD majors. Such material includes trigonometry, counseling theories, basics of the bench sciences, laboratory protocols, foreign languages, computer programming, and many other major areas of study. With this in mind, the need for substantial overlap between CSD and non-CSD curricula appears to be minimal. The argument could be advanced that the non-CSD majors are more qualified for graduate study than CSD majors. Indeed, it is likely that there are very few CSD majors who, after failing admission into a CSD graduate program apply and receive admission to a graduate program in some other discipline.

If we question the value of the undergraduate major to our students, and if we also

consider that students without CSD degrees have much to offer our graduate programs, then the issue of delivering undergraduate coursework and curricula might be addressed by offering and administering such course material within the context of a minor rather than a major concentration. A CSD minor provides undergraduate students with access to material and faculty associated with the graduate program. The depth of the interaction is up to the students and faculty. The minor also allows students from other majors to learn the basics of the CSD programs, including the observation of clinic practica as a class exercise.

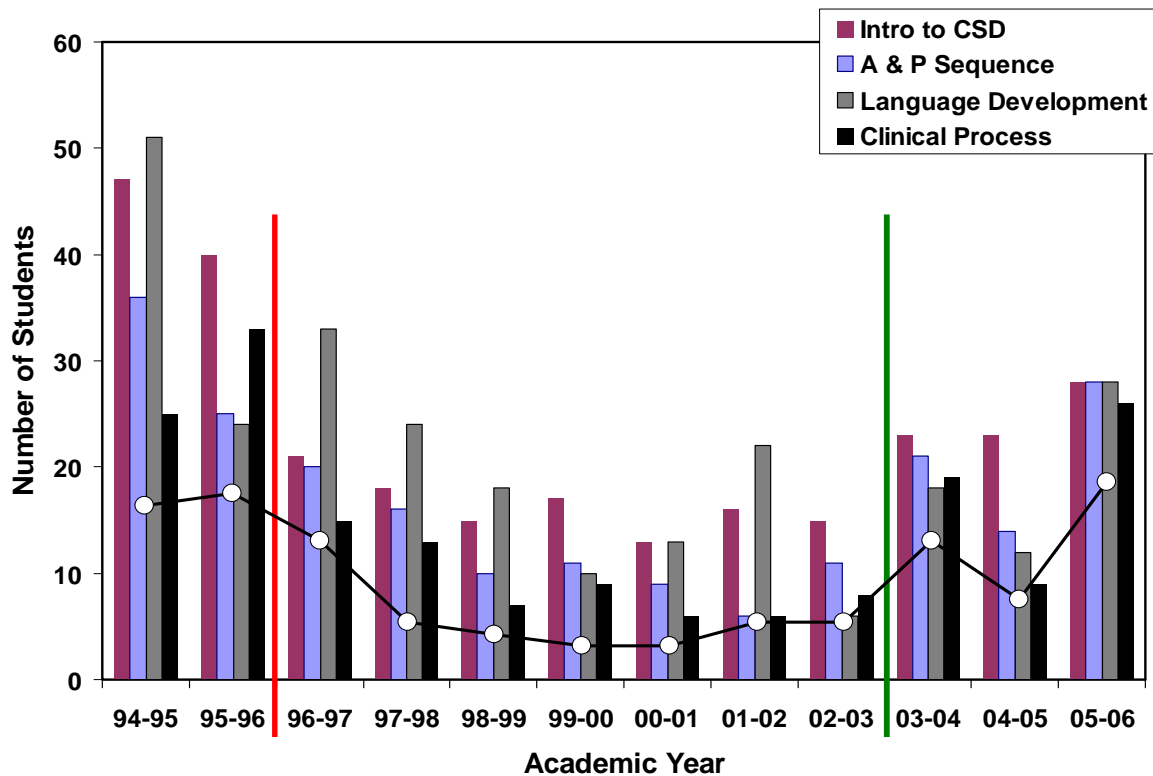
At East Tennessee State University (ETSU) we phased out the CSD major in 1996. In 2003, we collected the vestigial undergraduate courses into a minor concentration. The content of the minor has evolved over time and Table 1 contains the courses that will comprise the minor starting in the Fall, 2007. Currently, the A&P course is folded into the speech and hearing science classes, and an elective course, usually a writing class, is required. We will offer the A&P course as a co-requisite for Speech Science and Phonetics, and as a pre-requisite for Hearing Science. We found that many of the undergraduate students take writing classes as requirements for their major, and therefore credit hours for the minor could be added in CSD.

Table 1: Courses in the CSD Minor

Course Title	Semester	Hrs.	Co/Prerequisites
Intro to CSD	Fall	3	None
A&P of Speech and Hearing.	Fall	3	None
Speech Science and Phonetics	Fall	3	A&P
Hearing Science	Spring	3	A&P
Language Development	Spring	3	Intro
Clinical Process	Spring	3	Intro

Cutting the major during the academic years of 1995-1996 and 1996-1997 affected undergraduate enrollment in CSD classes and in the number of applications to both graduate programs received from ETSU students. Figure 1 shows the number of students enrolled in the undergraduate courses offered by the department. It is clear that the student census and number of indigenous applications relied upon the offering of either a major or a minor.

Figure 1: Student census and indigenous applications (open circles) in ETSU CSD program.



The latency of the minor's addition relative to the deletion of the major gave the faculty an opportunity to sample applicants from a variety of other disciplines across campus. The majority of applicants were submitted by majors in the bench sciences, psychology, education, and human development and learning. These students were aware of our offerings through several sources, but most often by collaboration between the faculties of our departments. In these cases, addition of the minor had the effect of codifying what our faculty already considered a reasonable course of study for non-CSD students.

CSD faculty contributed occasional, and informal advising for outside majors who were then attracted to the CSD courses when it was clear they could obtain a minor and establish themselves in the department prior to applying for graduate study. The effort to recruit such students increased as the number of undergraduate students in CSD courses declined. As recruitment improved, the visibility of CSD offerings increased, and non-majors swelled the enrollment in undergraduate courses. When these students asked themselves, "What do I do with my undergraduate degree?" our department had an answer. Over time it became clear that these students were among the strongest graduate applicants, and that provided diverse and

demanding academic backgrounds to our programs.

A major concern for non-CSD majors preparing for graduate study was related to students' awareness of, and time spent in, clinical settings. To provide these important experiences, we expanded the opportunities offered through the Clinical Process class. Students interested in SLP typically observed in the campus clinic; however we increased substantially the opportunities for students interested in Audiology. Such clinical opportunities now include a variety of diagnostic and rehabilitative sessions throughout the scope of practice, from hearing testing to vestibular testing, from hearing aid fittings to tinnitus counseling sessions. These observations should provide students with a clearer picture of Audiologic practice, our faculty, and a chance to see graduate students functioning as clinicians.

In the future, we anticipate an additional source of undergraduate interest in our program as Tennessee implements over the next few years the formal assignment of speech aides to provide SLP services in the schools. As there is a shortage of certified SLPs in some school districts, the state plans to use BS-level speech aides/assistants in these regions rather than searching for MS-level SLPs. At least one program in the state will be able to take advantage of this training opportunity as they have no intention of offering graduate programs at this time. Indeed, ASHA appears willing to allow baccalaureate degree holders to work in the field in this capacity if they are supervised by a certified SLP. Regardless of how these practitioners are to be viewed by academics and the public, they are on their way.

ETSU's CSD minor would not be suitable for such applicants, particularly as the state will require 100 hours or more of clinic at the undergraduate level. This clinic load would detract from the opportunities required by students in the graduate program. Limiting the undergraduate program concentration to a minor should minimize the effect of this potential conflict. Other institutions, particularly those without graduate programs, may offer students a major in CSD without this conflict. Unfortunately, it may be that over time, BS holders compete for jobs with MS holders in a manner similar to the way that hearing aid dispensers compete with certified audiologists and University clinics. The public's perception of an SLP may be influenced by this as the perception of audiologists has suffered from association with non-degreed, non-certified hearing aid dispensers.

An additional future consideration for the ETSU CSD minor will be to offer the courses during the summer semesters. The faculty requirements for this are, at this time, not tenable at our institution. However, the advantage of such a series of summer courses is clear. Prospective students would have additional time to complete the minor concentration, perhaps even as baccalaureate holders. We believe this would encourage even more students from

outside the CSD major to enter our graduate programs.

In summary, our experience suggests that there may be an intermediate ground between offering a CSD major, or a graduate-only program. A CSD minor allows students to take the basics of anatomy and physiology, speech and hearing science, and receive some exposure to clinical activity. They can do so while majoring in a different program, perhaps one that provides the student with a background in basic science, math, and writing that exceeds the coursework available to a CSD major. We are eager to take majors from other departments and our undergraduate minor provides the transition that facilitates their application to the graduate programs in CSD. Finally, the ability to see these students up close in several classes also facilitates our admission process when that time comes.

Models of Undergraduate Communication Sciences and Disorders Curriculum

Daniel C. Tullos

William Butler Yeats once said "Education is not the filling of a pail, but the lighting of a fire." I am pleased to participate in this presentation because I strongly believe that the place to begin to light that fire is when the students begin their undergraduate education.

As I begin my portion of this presentation, I would like to look at several different preparation models for undergraduate students in communication sciences and disorders. Of course, it is impossible to collapse all the different approaches to undergraduate education into a few distinct models. There are probably as many different approaches as there are programs with an undergraduate component represented at this Council meeting. However, for the purposes of this presentation, I have collapsed undergraduate training into three distinct models.

The first I have labeled as the *professionally intensive undergraduate education model*. This is the model that was followed in many of the undergraduate programs we attended. At the time many of us were beginning our education in speech-language pathology and audiology, it was possible to work with an undergraduate degree and many students chose to begin working as "speech therapists" in the public schools. These programs not only taught the basic science courses such as phonetics, speech and hearing science, and normal language development, but also trained students for clinical practice in articulation, child and adult language, voice, and fluency. Some of those individuals later returned to complete graduate education but many did not. Many states even grandfathered these bachelor level individuals into professional practice and continue to deal with the consequences.

As we moved toward requiring graduate education for professional certification, many of

these programs developed graduate programs and shifted their professional emphasis into this graduate component. However, many of these undergraduate programs continued to train undergraduate clinicians for professional practice for those employment settings content to hire less qualified (or unqualified) providers. Some of these professionally intensive undergraduate programs continue to exist, mainly in regions where it is possible to use a bachelor's degree as the entry level into professional practice. Some states continue to hire bachelor's level individuals to provide services for our public school children because they say that qualified providers are unavailable. Unfortunately, I'm afraid the reality is that these employers are unwilling to pay an appropriate salary for adequately trained professionals.

A second model that is frequently discussed is often referred to as the *liberal arts model*. Unfortunately, we are seldom consistent about what is included in this approach but there seems to be a continuum ranging from a strong liberal arts curriculum with an introduction to professional issues and practice to a strictly liberal arts curriculum with no professional course work. The end of the continuum emphasizing liberal arts with professional coursework I will address later as my third model. For the purposes of this presentation, I will limit the *liberal arts model* to a liberal arts emphasis without professional course work. Some academic programs refer to graduate school applicants from these programs as applying "without background." These students are often nontraditional students seeking a change in career or students that developed an interest in communication sciences and disorders late in their undergraduate academic experience.

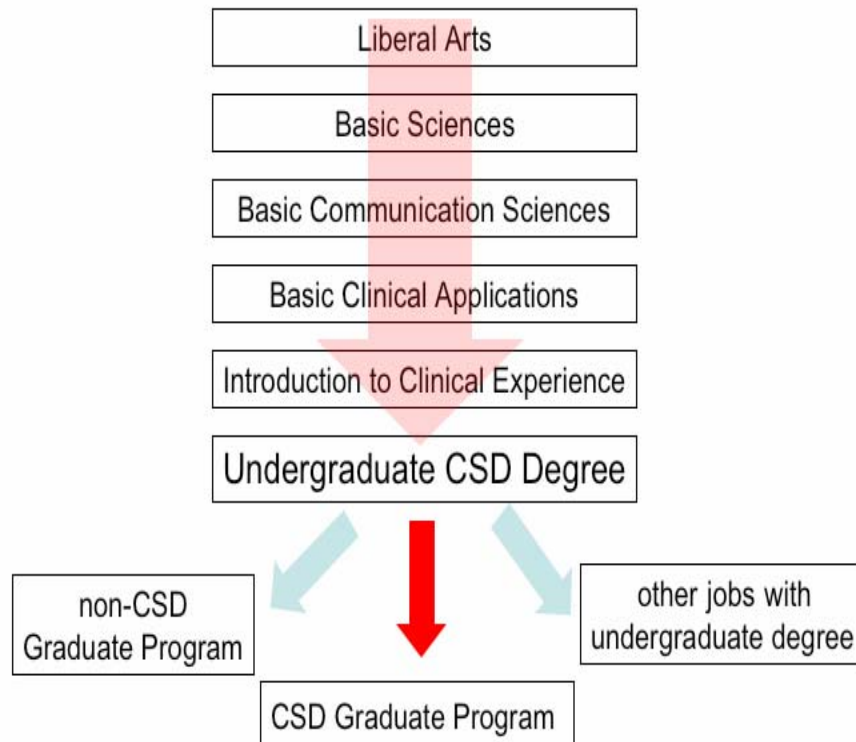
These nontraditional students "without background" are often compared to the traditional students entering graduate school. Unfortunately, those traditional students who have attended undergraduate communication sciences and disorders programs often appear to be lacking in this comparison. I strongly believe that such a comparison is inappropriate because as the saying goes, it is "comparing apples and oranges". Of course we would expect significant focus and dedication from these nontraditional students. However, we usually see the same focus and determination in our nontraditional students with "background" beginning graduate education after raising a family or needing to earn money before continuing. We must be cautious using such a comparison as a basis for accepting or rejecting an undergraduate communication sciences and disorders curriculum.

The major problem with this approach is that students know very little about what they are getting into. Something that sounds like a great career may not be of interest once a student begins academic course work in that area.

In my opinion the best model for educating undergraduate students planning to seek

professional degrees at the graduate level is one that I will call the *combined model* for the purposes of this presentation. Of course this is a poor name for this approach that I referred to earlier as one end of the liberal arts continuum. We use this approach at Harding University, an undergraduate-only program. Many National Academy of Preprofessional Programs members as well as many of you also use this approach. Having already used the term "liberal arts model" I will resort to the *combined model* because it emphasizes both liberal arts and professional practice.

Combined (Liberal Arts/CSD Undergraduate Education) Model



In this approach, students enroll in a strong liberal arts general education curriculum. These courses would include many courses contained within the Humanities curriculum including art, music, English, history, public speaking, and ethics. Courses from the basic science curriculum would include biology, psychology, sociology, algebra, and physical science. Basic communication sciences would include normal language development, phonetics, anatomy and physiology of speech and hearing, speech and hearing science, and American Sign Language. Basic clinical applications would include an introduction to communication disorders, professional issues, language disorders, articulation and phonological disorders, diagnostics, audiology and aural rehabilitation. Introduction to clinical experience would include direct clinical contact under careful instruction and supervision.

This model has served us well. Anecdotally, and based on graduate school reports, this model provides many benefits. Among those benefits, it provides a rich liberal arts background allowing our students to ethically interact with those around them. It gives them the framework necessary to provide clinical services to patients from the largest possible variety of backgrounds. It assists them with decision-making. Students with strong liberal arts backgrounds become competent professionals, not just skilled technicians. They decide to go into audiology because they were introduced to the profession early. They develop an interest in specific areas of research and seek out those research options at the graduate level.

This approach also allows us to educate the general population regarding our services and our professions. Many students use an undergraduate degree in communication sciences and disorders as a stepping-stone into other areas of interest. Students may choose to attend graduate school in reading, English as a Second Language, rehabilitation counseling, elementary and secondary education, educational administration and linguistics, to name just a few. These students take the undergraduate CSD education with them and many become advocates for our professions and the populations we serve.

One of the most important aspects of the combined model is the introduction of clinical practicum to the undergraduate student. This experience is lacking in the other models I presented. This practicum experience should serve as no more than a controlled introduction to an activity that will comprise the majority of that student's professional career. The current standards of the Council for Clinical Certification of the American Speech-Language-Hearing Association will allow only 50 clinical hours obtained at the undergraduate level to be counted toward professional certification and this seems appropriate. However, we at Harding value this practicum experience highly and our students graduate having completed approximately 100 clinical clock hours of articulation and language therapy. We continue to see these students as beginning clinicians in need of close supervision. There is a Chinese Proverb that states, "Tell me and I'll forget; show me and I may remember; involve me and I'll understand." This certainly seems to apply to clinical experiences.

This clinical experience serves two additional purposes. First of all, it allows the student clinician to gain confidence in the provision of clinical services. Graduate schools accepting our students report that students with undergraduate clinical experience are not afraid of the experience or the process. They know they can do this and that they can make a difference in their patient's lives. They are ready to learn how to do it better. Those that decide that clinical interaction is not for them have had the opportunity to make that decision before entering graduate school. They can seek other options before "it is too late."

The second purpose involves supervision and the recommendation about whether the provision of clinical services is an appropriate career choice for a given student. We have all been faced with the student who does well academically but who has no business providing therapy. It is helpful to counsel these students into different careers before they have invested time and resources in graduate education.

I am convinced that there is not, and never will be an ideal way of educating all undergraduate CSD students. However, I am concerned about the way we continue to eliminate professional content from the undergraduate curriculum for inclusion at the graduate level. It seems that we are trying to build a taller and better building by removing material from our foundation so that we can pile it on top. The end result for the building is disastrous. I hope the end result for our educational programs and the students we educate proves to be more stable. I would like to conclude with a quote from Albert Einstein, "It is a miracle that curiosity survives formal education."