



FIU

FLORIDA INTERNATIONAL UNIVERSITY
Miami's public research university

Program Review Report

Speech-Language Pathology

College of Nursing and Health Sciences

December, 2007

TABLE OF CONTENTS

Executive Summary	2
Program Description.	3
Degrees Offered.....	3
Number of Majors	4
Faculty/Student Ratio	4
Major Changes in Program.....	6
Changes in the Discipline or Field	6
Societal Need and Occupational Demand	6
Student Demand	8
Major Changes in the FIU Speech-Language Pathology Program	8
Student Learning Outcomes	8
How Is Assessment Information Used to Improve the Curriculum?	8
What Is the Evidence That Feedback Has Improved the Curriculum? ..	11
Strengths that Support the Achievement of Program Goals	12
Quality of the Curriculum	12
Quality of the Faculty	13
Quality of the Students	14
Quality of the Community Support	15
Cultural and Linguistic Diversity	16
Weaknesses that Impede the Achievement of Program Goals	17
Opportunities to Explore in the Achievement of Program Goals	17
Threats to Overcome in the Achievement of Program Goals	19
Budget	19
Major Findings and Recommendations	20
Appendices	
A: Fall 07 Departmental Indicators Reports	
B: KASA Forms	
C: Graduate and Employer Survey Forms	
D: Curriculum Sequence	

Executive Summary

The Master of Science Speech-Language Pathology Program was established in 2000; the first class graduated in 2002. The master's speech-language pathology program received initial accreditation from the Council of Academic Accreditation in Audiology and Speech-Language Pathology (CAA) in 2003. The program is housed in the Department of Communication Sciences and Disorders in the College of Nursing and Health Sciences. The FIU Speech-Language Pathology Program is the only master's speech-language pathology program in Miami-Dade. The closest programs geographically are in Davie, FL and Boca Raton, FL. There is tremendous demand for speech-language pathologists in Miami-Dade educational and healthcare facilities, e.g., hospitals, schools, clinics, nursing homes, and across the nation. There is student demand. In February, 2007, 104 individuals applied to the program; 31 applicants were admitted.

The master's program is a 55 credit, six semester program. There is no bachelor's speech-language pathology program. The M.S. Speech-Language Pathology Program currently has six faculty and 65 students. Four faculty are speech-language pathologists, one is a neuropsychologist, and one is a psycholinguist.

The strengths of the program are the curriculum, the quality of the faculty, the quality of the students, the cultural and linguistic diversity focus of the program, and the strong community support for the program. The major avenue in which the program needs to expand is in securing federal research funding. Exciting opportunities exist for pursuing collaborations with the College of Medicine and the Miami-Dade County Department of Health.

Appreciation is extended to those responsible for the preparation of this self-study: Alfredo Ardila, Helen Cornely, Ana Gouvea, Divina Grossman, Jean Mead, Victor Martinez, Mariateresa Munoz, Kyle Perkins, Sharon Pontious, and, Eliane Ramos.

Program Description

Degrees Offered

The Department of Communication Sciences and Disorders offers the Master of Science degree in speech-language pathology. The master's speech-language pathology degree program is a six semester program and consists of 55 credits. The first cohort of students in the FIU Speech-Language Pathology Program was admitted in 2000 and the first class graduated in 2002. Twenty-six students graduated in 2007, earning their M.S. degree in speech-language pathology.

The master's speech-language pathology program received initial five-year accreditation from the Council of Academic Accreditation in Audiology and Speech-Language Pathology (CAA) in 2003.

The overarching goals of the Department of Communication Sciences and Disorders are:

- 1) To prepare highly qualified professionals in speech-language pathology who exceed the guidelines of the American Speech-Language Hearing Association (ASHA) for clinical and academic preparation;
- 2) To prepare speech-language pathology professionals of diverse cultural and linguistic backgrounds to assess, diagnose, and treat clients of diverse cultural and linguistic backgrounds;
- 3) To act as a resource for the University and community by serving as consultants, facilitators and authorities in the various areas of communication disorders; and,
- 4) To increase research and grant proposal productivity by 50%.

Of the departmental goals for 2007-2008, the goals for the master's program are:

- 1) To increase the first time pass rates of students on the Praxis Examination to 85%
- 2) To develop and submit two research proposals for external and intramural funding.

A third departmental goal for 2007-2008 is to develop a 25 credit Speech-Language Pathology Certificate Program for post-baccalaureate students who wish to enroll in the department's prerequisite courses so they may apply to the FIU master's speech-language pathology program. This certificate program will provide recognition that individuals have academic preparation for speech-language pathology assistant positions.

The major focus of the program is to provide specialized master's education in essential knowledge and concepts of normal and disordered speech and language processes, which are the foundation for the discipline. Academic and clinical education stress evidence-based practice. The master's speech-language pathology program is designed to prepare speech-language pathologists for their roles as competent clinical practitioners. This program is unique because of its bilingual emphasis, i.e., to prepare students who are

culturally and linguistically diverse to provide effective and competent services to populations who are communicatively disabled and who are from culturally and linguistically diverse families, specifically to work with individuals and families who are English speaking, Spanish speaking, and Haitian Creole speaking. Currently, 71 percent of the students are non-White, and 67 percent of the students are bilingual. The speech-language pathology program at FIU is the only such program in Miami. Its establishment was requested and advocated for by the Miami-Dade County Public Schools.

Number of Majors

The FIU Office of Institutional Research annually compiles department level data. These data are referred to as Department Planning Indicators. The Fall 2007 Departmental Indicators Reports are presented in Appendix A.

During the 2007-2008 academic year, there are 65 students enrolled in the M.S. Speech-Language Pathology Program. The Fall 2007 Departmental Indicators Report for admissions indicates that 100 individuals applied to the program and that 29 students were admitted to the master's speech-language pathology program for the Fall 2007 semester. Table 1 presents comparative information pertaining to speech-language pathology programs in the state and at FIU benchmark universities.

Faculty-Student Ratio

There are six full-time faculty in the Department of Communication Sciences and Disorders. Two of the six faculty recently joined the faculty. The department faculty is responsible for teaching the master's program; for teaching undergraduate-level prerequisite coursework; for student and prospective student advising; for advising prospective students; for assigning and supervising clinical practicum experiences; for implementing a contract with Miami-Dade County Public Schools; for writing publications, including evidence-based publications; for conducting research; and for obtaining grants to support research. The Fall 2006 student-faculty ratio was 15.25:1, with four faculty and 61 students. This student-faculty ratio improved greatly; the Fall 2007 student-faculty ratio is 9.5:1, with six faculty and 57 students.

There are three adjunct faculty who teach in the Department of Communication Sciences and Disorders. These three individuals have been adjuncts since the initiation of the program. They routinely teach one course per year. Since the establishment of the department, additional instructional support has come from FIU's Linguistics Program. Six credits (Phonetics and General Linguistics) of the 25 credits of prerequisite coursework are taught by Linguistics.

Table 1: FIU, SUS & Benchmark University Characteristics

University	Degrees Offered	# of Faculty 2006-2007	# of Applications to M.S./M.A. Program 2006-2007	# of Newly Enrolled Students in M.S./M.A. Program 2006-2007
Arizona State University	B, M, PhD	35	220	32
Florida Atlantic University	M	7	90	12
Florida International University	M	5	63	23
Florida State University	B, M, PhD	19	Data not available	Data not available
Temple University	B, M, PhD	13	235	32
University of Central Florida	B, M, PhD	30	Data not available	Data not available
University of Florida	B, M, PhD	21	152	29
University of Houston	B, M	28	125	39
University of South Florida	B, M, PhD	30	191	55
Wayne State University	B, M, PhD	22	111	36

Major Changes in Program

Changes in the Discipline or Field

Major advances in the discipline of communication sciences and disorders are occurring in areas such as evidence-based practice, neuroscience, bilingualism and multilingualism, literacy, traumatic brain injury, and clinical practice for highly complex disorders. These advances are reflected in the curriculum, in the syllabi, in the clinical practicum placements, and in the program's formative and summative assessments.

Another change is that in 2005 revised standards for certification from the Council for Clinical Certification in Audiology and Speech-Language Pathology (CFCC) went into effect. One new standard requires that programs engage in ongoing systematic formative assessment of all students to ensure that students achieve the knowledge and skill outcomes stipulated in CFCC standards. Documentation of formative assessment is referred to as Knowledge and Skills Acquisition (KASA). For decades, there has been summative assessment, the Praxis Examination in Speech-Language Pathology.

Societal Need and Occupational Demand

US News and World Report ranks speech-language pathology as one of the *Top 25 Careers for 2007*. In 2006, Money Magazine ranked speech-language pathology in the top fifty jobs in America. The growth of jobs in communication sciences and disorders is projected to continue over the next decade. Speech-language pathologists are needed in various job settings all over the country and around the world. There is a high demand in the marketplace for multilingual individuals. According to the Bureau of Labor Statistics (2006), employment of speech-language pathologists is expected to increase 9 to 17 percent through the year 2014:

As the members of the baby boom generation continue to age, the possibility of neurological disorders and associated speech, language, and swallowing impairments increases. Medical advances are also improving the survival rate of premature infants and trauma and stroke victims, who then need assessment and possible treatment. An increased emphasis also has been placed on early identification of speech and language problems in young children. The combination of growth in the occupation and an expected increase in retirements over the coming years should create excellent job opportunities for speech-language pathologists. Opportunities are particularly favorable for those with the ability to speak a second language, such as Spanish. Employment in educational services will increase along with growth in elementary and secondary school

enrollments, including enrollment of special education students. The number of speech-language pathologists in private practice is rising due to the increasing use of contract services by hospitals, schools, and nursing care facilities. (Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2006-07 Edition*, Speech-Language Pathologists)

The need for speech-language pathologists is critical in Miami-Dade County and across the country. Since 2005, the American Speech-Language-Hearing Association (ASHA) identified the need to address the shortages of speech-language pathologists in educational and healthcare settings by making this a Focused Initiative. To illustrate, responses to the 2007 ASHA Health Care Survey from 2,340 speech-language pathologists (64 percent response rate) revealed that, nationally:

- Overall, 59 percent of the respondents stated that job openings were more numerous than job seekers; by type of facility, 51 percent of respondents in general medical hospitals and rehabilitation hospitals, compared to 66 percent of respondents in skilled nursing facilities.
- Overall, 38 percent of the speech-language pathologists who responded indicated that they had funded but unfilled position at their facilities. The range was from 34 percent in skilled nursing facilities to 54 percent in pediatric hospitals.
- Regarding geographic divisions, 75 percent of respondents in the Pacific area and 71 percent of respondents in New England, compared to 36 percent in the South Central area declared that job openings were more numerous than job seekers.
- Nationally, the lower the population density, the more likely speech-language pathologists stated that job openings were more numerous than job seekers - specifically, 56 percent of those in metropolitan and urban areas, 59 percent in suburban areas, compared to 66 percent in rural areas.
- As a way to recruit speech-language pathologists to the public schools, several state legislatures (Arkansas, Delaware, Indiana, Louisiana, Mississippi, Missouri, Nevada, Oklahoma, Rhode Island, West Virginia) have approved annual salary supplements for school-based certified speech-language pathologists (American Speech-Language-Hearing Association, Salary supplement legislative status chart, 2007).

There are school systems that offer sign-on bonuses for speech-language pathologists. Miami-Dade County Public Schools (MDCPS) has a sign-on bonus of \$5,000 for speech-language pathologists. Miami-Dade County Public Schools have- also authorized salary supplements for certified speech-language pathologists.

Student Demand

The number of applications to the graduate program and the number of students enrolled in the prerequisite courses demonstrate the tremendous student interest in the FIU speech-language pathology program. Annually, there are two to four times more individuals who apply to the master's speech-language pathology program than who are accepted. These data are presented in Appendix A. Eighty-six percent of the 2007 applicants had a GPA of 3.0 or above.

Major Changes in the FIU Speech-Language Pathology Program

In 2005, a decision was made by the FIU administration to close the Speech-Language Pathology Program because program operation costs far exceeded revenue projection fiscal data that had been presented in the feasibility study regarding establishing a master's speech-language pathology program at FIU. The Department of Communication Sciences and Disorders and the Dean of the School of Health Sciences worked with the Executive Dean of the College of Health and Urban Affairs to make the program more fiscally efficient and more financially self-supporting. Five major changes occurred within the Speech-Language Pathology Program in Fall, 2005: (1) Beginning that semester, no student could have part-time status; all students had to enroll as full time master's students; (2) Curriculum revision: Prior to Fall, 2005, there were three tracks and a master's thesis option. Beginning Fall, 2005, there are no tracks; the program has a bilingualism focus that all students receive; (3) A tuition-plus fee of \$285/credit was assessed for the 11 clinically focused courses, comprising 33 credits of study. Students entering the program beginning Fall, 2005, pay \$9,405 in tuition-plus fees; (4) Since 2005, the Department of Communication Sciences and Disorders has applied for and has been awarded an annual contract with Miami-Dade County Public Schools (MDCPS) whereby the Department provides graduate students, along with certified supervisors, to assume the responsibilities of 4 FTE speech-language pathologists; and, (5) Instead of being paid from FIU E&G funds, the salaries of two of the six faculty are being paid from an auxiliary account (i.e., the tuition-plus fees) and the salary for one faculty member is being paid from the contract with MDCPS.

Student Learning Outcomes

How is assessment information used to improve the curriculum, teaching, and learning?

Formative and summative assessment, alumni and employer surveys, and students and faculty feedback are assessment measures that are utilized in the FIU Speech-Language Pathology Program. FIU speech-language pathology faculty and students engage in formative assessment of academic knowledge and clinical knowledge and skills using the

Knowledge and Skills Acquisition (KASA) and clinical skill portfolios. The formative assessment procedures document and verify students' acquisition of knowledge of the nature of speech, language, hearing, and communication disorders and differences, and swallowing disorders, including the etiologies, characteristics, anatomical/physiological, acoustic, psychological, developmental, and linguistic and cultural correlates. For the KASA, specific knowledge must be demonstrated in the following areas:

- articulation
- fluency
- voice and resonance, including respiration and phonation
- receptive and expressive language (phonology, morphology, syntax, semantics, and pragmatics) in speaking, listening, reading, writing, and manual modalities
- hearing, including the impact on speech and language
- swallowing (oral, pharyngeal, esophageal, and related functions, including oral function for feeding; orofacial myofunction)
- cognitive aspects of communication (attention, memory, sequencing, problem-solving, executive functioning)
- social aspects of communication (including challenging behavior, ineffective social skills, lack of communication opportunities)
- communication modalities (including oral, manual, augmentative, and alternative communication techniques and assistive technologies)

Through formative assessment, using the KASA and clinical skill portfolios, FIU students demonstrate their knowledge of the principles and methods of prevention, assessment, and intervention for people with communication and swallowing disorders, including consideration of anatomical/physiological, psychological, developmental, and linguistic and cultural correlates of the disorders. Before each student graduates, the department faculty and the student's clinical supervisors verify that each student has successfully accomplished the acquisition of entry-level knowledge and skills in the above nine areas. The KASA form used for formative assessment of academic knowledge and the KASA form used for formative assessment of clinical knowledge and skills are provided in Appendix B. In keeping with the principles of formative assessment, whenever a student reveals less than optimum acquisition of a specific knowledge or skill, individualized enrichment or remediation strategies are required by the faculty.

For summative assessment, students take the Praxis Examination in Speech-Language Pathology. Students must pass the Praxis Examination to qualify for graduation. Thus, the program's graduates have a 100 percent pass rate, which is required to qualify for ASHA certification and state licensure. The program's average first time pass rate is 87 percent, which is above the national pass rate. However, the first time pass rate of the students who took the examination most recently is 78 percent. The program receives annual reports from ETS on students' performance on the Praxis Examination for Speech-Language Pathology. These Praxis data are presented in Table 2.

Table 2: Praxis Examination Pass Rates

	# Students Taking Praxis	First Time Pass Rate	Pass Rate At Time of Graduation	National Pass Rate
2001-2002	20	Not Available	100%	77%
2002-2003	12	Not Available	100%	75%
2003-2004	24	100%	100%	75.2%
2004-2005	17	82%	100%	77.5%
2005-2006	17	88%	100%	Not Yet Available
2006-2007	29	78%	100%	Not Yet Available

Additionally, the Department of Communication Sciences and Disorders conducts surveys with graduates (at graduation, 1 and 2 years post-graduation) and with the employers of the department's graduates. ETS reports are examined for areas of weaknesses to determine whether changes are necessary. Results from graduate and employer surveys are used to determine whether the program meets with expectations of the alumni once they are in the workforce and the expectations of employers for entry-level professionals. Alumni are sent their first survey during the fall semester of the year they graduate, the second survey is sent one year post-graduation and the third survey is sent three years post-graduation. These surveys were sent to 98 graduates and 68 responded. Eighty-three percent of respondents "mostly agreed" or "strongly agreed" (1 or 2 on a scale from 1 to 5) with statements that describe high quality of the program (e.g., faculty expertise, appropriate curriculum, feeling of being academically and clinically prepared, adequate knowledge of theory, prepared to manage a variety of disorders, adequately prepared to be a speech-language pathologist). Employers of graduates are sent a survey one year post-graduation, once the graduate has completed the Clinical Fellowship. Sixty-seven employers were sent this survey and 40 responded. Eighty-two percent of respondents "mostly agreed" or "strongly agreed" (1 or 2 on a scale from 1 to 5) with statements that describe high quality of graduates. Copies of the graduate and employer surveys are presented in Appendix C.

What is the evidence that feedback and adjustments actually have improved the curriculum, instruction, and student learning?

A number of changes have been implemented as a result of these various feedback mechanisms, in addition to direct feedback from current students:

1. Two courses were eliminated from the curriculum in 2005 after the faculty agreed with students that the content of these courses was being addressed in other courses. The courses are: SPA 5473 Cultural Diversity in Communication Disorders and SPA 5571 Ethical and Legal Aspects of Health Care Professions. The content of both courses is covered in individual courses dealing with each disorder and in the three bilingual emphasis courses.
2. Specific hands-on sessions were added to Clinical Practicum seminars in 2006 to address student concerns about preparedness for specific diagnostic and treatment tasks necessary for successful clinical practicum experiences (e.g., performing Oral Mechanism Examinations, implementing disorder specific treatment procedures).
3. Two adjunct faculty who received consistently negative comments from students are no longer teaching in the program and the courses were taught by departmental faculty. The courses were: SPA 5473 Cultural Diversity in Communication Disorders, and, SPA 5553 Differential Diagnosis of Communication Disorders. SPA 5473 has been eliminated from the curriculum, as explained below.
4. Students were offered an opportunity to take a workshop presented by Noma Anderson to improve test-taking skills in 2007 and this workshop will be repeated annually. The Department would like to increase the first time pass rate from the most recent 78 percent to at least the department's average first time pass rate of 87 percent.
5. In response to faculty and student concerns about the large number of credits in the program (65 credits), curriculum review and modification changed the curriculum to 55 credits in 2005. In addition to eliminating two courses (SPA 5473 and SPA 5571), the content of four courses was merged into two courses, i.e., Fluency Disorders and Voice Disorders were combined to form SPA 5216 Vocal, Velopharyngeal, and Fluency Disorders, and, Augmentative and Alternative Communication was combined with Neuromotor Communication Disorders to form SPA 6232 Neuromotor Communication Disorders and Augmentative Communication. One new course, SPA 6479 Communication Disorders and Aging in a Bilingual Society, was added to the curriculum. Additionally, two 2 credit courses, SPA 6565 Dysphagia and SPA 5404 Language Learning in School Aged Children, were increased to 3 credit courses. A focus on evidence-based practices was introduced.

All of these modifications have been recently implemented so there are not yet objective data to determine the extent of improvement on the curriculum, on instruction, or on student learning. Anecdotal reports from faculty and students are positive. A copy of the curriculum sequence is provided in Appendix D.

Strengths that Support the Achievement of Program Goals

The strengths that support the achievement of the program's goals are:

- the quality of the curriculum
- the quality of the faculty,
- the quality of the students,
- the quality of the community support of the program, and
- the cultural and linguistic diversity of the program's focus, students, and faculty.

Quality of the Curriculum

The program offers a curriculum that reflects current theoretical and clinical information in speech-language pathology as well as advances in the discipline. The curriculum includes etiologies, evaluation, and treatment of problems of articulation, language, voice, fluency, and neurophysiological and structural disorders affecting speech and language in culturally and linguistically diverse populations. *This is the only speech-language pathology program in the country to prepare students to work with individuals and families who speak English, Spanish, and Haitian Creole.* The unique bilingual focus of the program reflects the diversity of the Miami-Dade community. Moreover, the students are prepared to be competent clinical practitioners who adhere to evidence based practice in the delivery of clinical services. Students are learning that evidence-based practice is determined from existing research literature, the clinical experiences of practitioners, and the values and perspectives of patients/clients. Students are also taught to take into consideration levels of evidence when evaluating existing research literature. Multiculturalism and multilingualism are embedded throughout the curriculum. Specific courses are: SPA 6406 Dual Language Acquisition and Communication Disorders, SPA 6005 Assessment and Treatment of Bilingual Child, SPA 6479 Communication Disorders and Aging in a Bilingual Society. Also, students spend four semesters in clinical practicum. In their clinical placements, the majority of the clients to whom the students deliver clinical services are bilingual.

Quality of the Faculty

The faculty is a significant asset to the program. The faculty is small and each member of the faculty contributes expertise and experience.

Noma Anderson is a tenured professor in the department. Her areas of expertise are bidialectalism, language acquisition, multiculturalism, and anatomy and physiology. She was the 2007 President of the American Speech-Language-Hearing Association (ASHA). ASHA is the professional, scientific, and credentialing association for more than 127,000 members and affiliates who are audiologists, speech-language pathologists, and speech, language, and hearing scientists. Dr. Anderson is the former dean of the School of Health Sciences and became chair of the Department of Communication Sciences and Disorders in November, 2006. Since arriving at FIU in 2001, she has co-edited two textbooks and has five non-refereed articles published. Each year she delivers numerous invited presentations across the country. *Therapy Times Online* named Dr. Anderson one of "The Most Influential People in 2007." In November 2007, she was the recipient of the Harvard University Foundation Medallion for her leadership and contributions to American education, health services, and intercultural relations as President of ASHA.

Alfredo Ardila, a tenured professor and neuropsychologist, and, a student of one of the most important individuals in the discipline, Alexander Romanovich Luria, is a prolific writer. Since joining the faculty in 2002, he has had nine books published and 68 articles and book chapters published. According to the Scientific Citation Index, as of September, 2007 there have been 2,216 citations of Dr. Ardila's publications; 934 citations have occurred since 2002. Dr. Ardila's areas of research are aphasia, bilingualism and aphasia, bilingualism and semantic theory, and bilingualism and aging. Dr. Ardila is multilingual.

Ana Gouvea is a tenure earning assistant professor. Dr. Gouvea is a psycholinguist and is in her first year on the faculty of FIU. She has had doctoral and postdoctoral education in the areas of cognitive processing in infants and neurolinguistics and sentence processing in adults. Dr. Gouvea provides unique expertise that expands the department's capability for seeking and acquiring external research funding. Dr. Gouvea is multilingual.

Jean Mead, clinical assistant professor, is Coordinator of Clinical Education. Dr. Mead has oversight of students' clinical practica. The program requires that each student be assigned to four clinical practicum experiences that are individually determined based upon the needs and level of expertise of each student. Each student is to have practicum experiences that reflect diverse ages, disorders, settings, and client severity. Dr. Mead arranges and monitors students' clinical placements; liaisons with numerous community speech-language-hearing agencies; and she evaluates students' clinical practicum portfolios. Each semester Dr. Mead performs these responsibilities with approximately 60 students. Her area of expertise is supervision.

Mariateresa Munoz is a clinical instructor in the Department of Communication Sciences and Disorders. Her expertise is clinical service delivery to children, including children who are bilingual and communicatively disordered. Ms. Munoz has worked in a number of clinical settings, including schools, clinics, and private practice. Ms. Munoz exposes students to best practices in professional speech-language pathology practice and by doing so provides an outstanding role model for students who are preparing to enter the profession. Ms. Munoz is bilingual.

Eliane Ramos, visiting assistant professor, teaches bilingual language acquisition, assessment and treatment of bilingual children with communication disorders, and research methods. Dr. Ramos served in the role of interim department chair for two years. Her expertise in bilingual language acquisition and intervention is integral to the FIU Speech-Language Pathology program. She has recently co-edited a textbook and has co-authored two book chapters. Dr. Ramos is multilingual.

Quality of the Students

The quality of the students in the program is outstanding. *From 2002-2007, the program's graduates have had a 100 percent pass rate on the Praxis Examination in Speech-Language Pathology at the time of graduation, with an average first time pass rate of 87 percent.* The national pass rate is presently 77.5 percent. A program's Praxis Examination pass rate is one measure of student quality used by the CAA. Table 2 presents the program's Praxis Examination data. The program uses the GPA of the admitted students as another measure of student quality. These data are presented in Table 3. Across the years of operation, the overall mean GPA for the students who are admitted into the master's speech-language pathology program is 3.5. The average exit GPA of the students who graduated in 2006 was 3.8.

From 2003 to 2007, 80 students have graduated from the FIU M.S. Speech-Language Pathology Program (refer to Appendix A). One hundred percent have been employed immediately following graduation. With the exception of seven graduates, the department's alumni are employed in South Florida.

Table 3: GPAs of Admitted Students

Year	Average GPA
2000	3.45
2001	3.35
2002	3.64
2003	3.43
2004	3.46
2005	3.34
2006	3.57
2007	3.49

Quality of the Community Support

The support of the Miami-Dade County community is an important strength of the program. From the very beginning, there has been tremendous community support that recognized the need for the program and advocated for the establishment of the program, namely Miami-Dade County Public Schools (MDCPS). There are 99 community speech-language pathology facilities that accept FIU students for clinical practicum, and 136 speech-language pathologists working across Miami-Dade and Broward counties who provide or have provided clinical supervision to FIU master's speech-language pathology students without compensation.

The FIU program is impacting the community, as well. Since 2005, the FIU Department of Communication Sciences and Disorders has been awarded a contract from MDCPS. MDCPS is experiencing a large number of vacancies in speech-language pathology. When the contract was initially awarded, there were approximately 30 vacancies. The Department of Communication Sciences and Disorders, for three consecutive years, has been awarded an annual contract for \$293,000 to provide speech-language pathology and hearing screening services to MDCPS students. Providing services to over 500 MDCPS students has a positive impact upon the community. As ASHA President, Dr. Anderson has made an impact across the nation. In the past two years she has made over 40 presentations, public service announcements, teleseminars, interviews, press conferences,

testimonies to federal committees. Internationally, Dr. Ardila is frequently invited to provide lectures, often at prestigious linguistic meetings in Mexico, Spain, Columbia, and South America. Regarding state level involvement, Dr. Jean Mead is on the Executive Board of the Florida Association of Speech-Language Pathologists and Audiologists (FLASHA) serving as Vice President for Convention. Dr. Anderson, Dr. Ramos and graduate students presented at the Spring 2007 FLASHA Convention.

The Department of Communication Sciences and Disorders has acted as a resource for hearing health for the University community. In May, 2007, for the first time, the department offered free hearing screenings to the University community. This initiative was very well received and will be continued on an annual basis, each May, Better Hearing and Speech Month. Forty individuals were screened.

Cultural and Linguistic Diversity

The Sullivan Commission on Diversity in the Healthcare Workforce (Sullivan Commission, 2004) reports that African Americans, Hispanics, American Indians, and certain segments of the nation's Asian/Pacific Islander population are not present in significant numbers in healthcare professions—in fact, they are “missing”. The commission's report—“Missing Persons: Minorities in the Health Professions”—presents evidence that greater diversity among health professionals is linked to improved access to care for racial and ethnic minority patients. Regarding the discipline of communication sciences and disorders, among the more than 127,000 members of ASHA, the racial demographics of the membership are: 92.7 percent are White, 2.5 percent are Black/African American, 2.7 percent are multi-racial, 1.7 percent are Asian, 0.3 percent are American Indian, and 0.1 percent are Native Hawaiian/Pacific Islander. The ethnic demographics are: 3 percent are Hispanic and 97 percent are non-Hispanic (American Speech-Language-Hearing Association, retrieved 9/20/07 from www.asha.org). An important role of higher education is increasing the diversity of communication disorders specialists and communication scientists. The challenges posed by shifting demographics can be addressed best by educating communication sciences and disorders (CSD) students in culturally dynamic environments (Sullivan Commission, 2004); i.e., culturally and linguistically diverse university faculties who admit, support, and maintain diverse student bodies. The faculty and the students in the FIU master's speech-language pathology program are culturally and linguistically diverse, and the focus of the program is to prepare speech-language pathology professionals of diverse cultural and linguistic backgrounds to assess, diagnose and treat clients of diverse cultural and linguistic backgrounds. Currently, 71 percent of the students are non-White, and 67 percent of the students are bilingual. Collectively, the faculty speaks English, Spanish, Portuguese, Russian, French and Italian. The languages spoken by the students are English, Spanish, Haitian Creole, Portuguese, French, and Russian. Eighty-three percent of the faculty are from ethnically and racially diverse backgrounds.

Weaknesses that Impede the Achievement of Program Goals

One arena in which the department wants to improve is securing external research grants and increasing evidence-based publications by 50%. Prior to this academic year, this small faculty has focused on providing quality academic and clinical education, producing quality graduates, and generating non-sponsored research and top quality publications in the areas of neurolinguistics and bilingualism.

Opportunities to Explore in the Achievement of Program Goals

There are several exciting opportunities that can be explored for further achievement of the department's goals. The establishment of the FIU College of Medicine is an exciting opportunity for collaborative research that will be pursued. For example, there are genetic syndromes, neurological disorders, developmental disabilities, laryngeal disorders, orofacial-maxillary anomalies, otorhinolaryngological disorders, swallowing disorders, and respiratory disorders that are of mutual interest to researchers and practitioners in medicine and in speech-language pathology. The College of Medicine also provides exciting opportunities for professional and graduate education. The Speech-Language Pathology Program formerly offered a medical track. The Medical Speech-Language Pathology Track addressed the needs of certain populations that are seen in medical settings, e.g., Parkinson's, TBI, NICU, fragile infants, head and neck cancer, chronic pediatric and adult illnesses. Exciting partnerships could be created if this track were reintroduced. For example, the speech-language pathologists who work in the hospitals that are affiliating with FIU's College of Medicine could be clinical supervisors and adjunct faculty for the FIU Speech-Language Pathology Medical Track. An exciting opportunity would be for classes in the medical track to be taught in the hospitals affiliating with the FIU College of Medicine.

Another exciting development that may be a possible opportunity for the master's speech-language pathology program is the Miami-Dade Health Department moving to FIU. According to the FIU homepage announcement, there will be a building constructed by 2010 that will house a model clinic and research labs. This new enterprise could create an opportunity where speech-language pathology students and faculty could work alongside the Miami-Dade Department of Health (DOH) practitioners. In the clinic, speech-language pathology students and faculty could provide speech, language and hearing screenings to the children who are receiving services at the Department of Health. Impaired communication impacts a child's social, communication, intellectual, and academic development. This collaboration could provide opportunities for clinical research as well as the prevention and identification of speech, language and hearing problems among young children.

An aspirational opportunity that would contribute to the achievement of the departmental goal of being a resource to the community would be the establishment of a doctoral program within the next ten years, given the research and grants that can support doctoral students. Across the discipline, the most prestigious speech-language pathology programs are those with the following features: they are housed at Carnegie Research universities; they have Ph.D. Speech-Language Pathology programs; their faculty have federally funded research grants; they have active research laboratories; and there is a cadre of doctoral students who are research assistants and whose education is totally or partially funded by research grants. While FIU is ranked as a Research University in the High Research Activity category of the Carnegie Foundation's classification system, a doctoral program is aspirational for the Speech-Language Pathology Program. Currently, the program does not have the longevity of the communication sciences and disorders programs at comparable universities, nor the faculty size, nor the research and research grants; however, there is tremendous need for there to be a doctoral program with the cultural and linguistic diversity emphasis that exists within FIU's Speech-Language Pathology Program. Nationally, very little basic and translational research is being conducted on bilingual and multilingual topics and with culturally and linguistically diverse populations; little evidence based practice scholarship is being conducted in these areas. An FIU doctoral Speech-Language Pathology Program would provide research outcomes in areas that need attention. The Department of Communication Sciences and Disorders recognizes that a successful increase in the number of research grants and evidenced-based publications prior to establishing a Ph.D. program.

There are two approaches by which a doctoral program could be established. Both approaches would be collaborative and interdisciplinary. The disciplines of linguistics and communication sciences and disorders have close research and pedagogical connections. Developing a Ph.D. program with the FIU Linguistics Program would be a possible approach that the Speech-Language Pathology Program could take, particularly because of the cooperative relationship between the Linguistics program and the Speech-Language Pathology Program at FIU. Another approach for the establishment of a doctoral program is an interdisciplinary Ph.D. Program in Rehabilitation Sciences, which could be offered collaboratively with faculty and students in athletic training, occupational therapy, physical therapy, and recreational therapy.

Interdisciplinary doctoral programs have been established at several universities. Three examples are: (1) the Joint Ph.D. Program in Speech-Language Pathology and Linguistics at the University of California at San Diego and California State University at San Diego, (2) the Ph.D. in Rehabilitation Sciences Program at the University of Kentucky (athletic training, communication disorders, occupational therapy, physical therapy), and, (3) the Ph.D. in Rehabilitation Sciences Program at the University of Florida (occupational therapy, physical therapy, rehabilitation counseling, and communicative disorders).

Threats to Overcome in the Achievement of Program Goals

A paucity of Ph.D.s in speech-language pathology is a threat to the program achieving its goals. Nationally, in a context of the graying and retiring of the speech-language pathology professoriate, there is an alarming decrease in the number of newly minted Ph.D.s graduating in speech-language pathology, and, of the Ph.D.s who are currently graduating, approximately 50 percent are electing to join the academy. ASHA has addressed the need to increase the number of Ph.D. faculty in Focused Initiatives and Strategic Issues since 2000. With too few Ph.D. faculty available, there are national concerns about there being adequate numbers of faculty to educate the next generation of speech-language pathologists and to generate new knowledge in the discipline. In fact other disciplines are increasingly active and visible in communication sciences and disorders research.

The cultural and linguistic diversity emphasis of the Speech-Language Pathology Program at FIU and the cultural and linguistic diversity of South Florida make this a unique and attractive program to doctorally prepared speech-language pathologists interested in multiculturalism. Hence, the ability to attract Ph.D. faculty is somewhat easier for FIU than for many other speech-language pathology programs across the country. Additionally, the ability of the FIU Speech-Language Pathology Program to attract Ph.D. prepared individuals will improve as the research productivity of the program increases.

Another threat to the discipline is academic programs finding it difficult to increase the number of students due to the requirements of the clinical education component of master's speech-language pathology education, even though there is the need for more speech-language pathologists. If larger numbers of students matriculate, finding appropriate clinical placements at appropriate clinical facilities with appropriate supervising speech-language pathologists each semester for each student would be a challenge for this department of communication sciences and disorders.

Budget

Steady State

The Department of Communication Sciences and Disorders has E&G and auxiliary budgets. The auxiliary budget referred to in Table 4 is the tuition plus funds.

Table 4: 2007– 2008 Department of Communication Sciences and Disorders Budget

	E&G Budget	Auxiliary Budget
Salaries	335,704	186,445
Other Personnel Services	22,216	104,400
Expenses	15,834	56,562
<i>Total</i>	373,754	347,407

No targeted increments in the budget are being requested.

Major Findings and Recommendations

The Department of Communication Sciences and Disorders was established in 2000. The degree that is offered is the M.S. in Speech-Language Pathology. The first class graduated in 2002. The curriculum is 55 credits and this is a six semester program. The program is unique in that it is the only speech-language pathology program in the nation that focuses on the communication needs of speakers of Spanish, English, and Haitian Creole. The master's program is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA). This is the only master's speech-language pathology program in Miami-Dade County.

The strengths of the program are the quality of the curriculum, the cultural and linguistic focus of the program, the quality of the faculty, the quality of the students, the strong support from the community, as well as the cultural and linguistic diversity of the students and faculty. There is the need for the Speech-Language Pathology Program to gain external research funding. The establishment of the FIU College of Medicine and the move of the Department of Health to FIU have the potential to provide areas of collaboration in teaching, clinical service, and research. An aspirational goal of the speech-language pathology program is the establishment of an interdisciplinary Ph.D. program.

Recommendations for the program are:

1. Pursue avenues to secure external research funding.
2. Increase the number of evidence-based publications.
3. Pursue avenues of collaboration with the FIU College of Medicine and the Miami-Dade County Department of Health.
4. Improve first time pass rate on Praxis Examination.