

(Approved by the Executive Board of the Educational Audiology Association May 2009)

Hearing and auditory function have significant impact on the development and use of language and communication which can affect academic progress and outcomes for students. Federal special education legislation has provided the underlying support for audiology services in the schools for more than thirty years (PL94-142, 1975; IDEA 1997; IDEA 2004). Additional education and civil rights legislation (e.g. No Child Left Behind, 2001; Section 504 of the Rehabilitation Act of 1973; Americans with Disabilities Act, 1990) require schools to provide all students with access to the educational environment and to incorporate accommodations and modifications for students who need assistance in order to access general education instruction and curricula.

It is the position of the Educational Audiology Association (EAA) that educational audiologists are uniquely qualified to facilitate support for students with hearing difficulties in the educational system. In addition to identification of a student's hearing loss, the educational audiologist has knowledge and skills regarding the impact of hearing loss on learning, relevant educational goals and benchmarks, and experience with strategies and technology for support within the classroom for both the student and the teacher. Educational audiology services should be comprehensive, collaborative, and designed to address the student's individual communication, academic, and psychosocial needs.

The EAA supports a target ratio of one full-time equivalent (FTE) educational audiologist for every 10,000 students served by the local education agency (LEA) or regional cooperative. Workload factors such as extensive travel time or time-intensive services (e.g. direct intervention; services to infants, toddlers, students with multiple disabilities; service provision to regional or self-contained programs designed for multiple students who are deaf or hard of hearing) may result in the need for adjustment of this ratio. Educational audiologists must meet current state and federal requirements for credentialing through licensure and/or certification.

The Individuals with Disabilities Education Act (IDEA 2004) defines the practice of audiology in educational settings as follows: (i) identification of children with hearing loss; (ii) determination of the range, nature, and degree of hearing loss, including referral for medical or other professional attention for the habilitation of hearing; (iii) provision of habilitative activities, such as language habilitation, auditory training, speech reading (lip-reading), hearing evaluation, and speech conservation; (iv) creation and administration of programs for prevention of hearing loss; (v) counseling and guidance of children, parents, and teachers regarding hearing loss; and (vi) determination of children's needs for group and individual amplification, selecting and fitting an appropriate aid, and evaluating the effectiveness of amplification [§300.34(c)(1)]. IDEA 2004 regulations also require schools to ensure that hearing aids and external components of cochlear implants are functioning properly [§300.113(a)(b)]. Although the present position paper is not meant to detail all possible activities of an educational audiologist, the Educational Audiology Association recommends the following professional practices at a minimum for each of the six areas identified in IDEA 2004, for audiologists working in educational settings.

1. IDENTIFICATION OF CHILDREN WITH HEARING LOSS:

- Collaboration with state and local Early Hearing Detection and Intervention (EHDI) programs to promote access to screening services for children between birth and 3 years of age and to facilitate an efficient transition from initial screening through diagnosis and intervention provided within the educational system.
- Participation in the development and oversight of identification programs to screen children at risk for hearing difficulties between birth and 21 years of age.
- Utilization of objective screening tools that reflect best practices and are developmentally and culturally appropriate.
- Assistance in the provision of training and support for individuals who conduct and implement hearing screening programs for children between birth and 21 years of age.
- Documentation of effectiveness of screening programs through outcome measures such as referral rates, follow-up rates, and identification of children with confirmed hearing loss.

2. DETERMINATION OF THE RANGE, NATURE, AND DEGREE OF HEARING LOSS, INCLUDING REFERRAL FOR MEDICAL OR OTHER PROFESSIONAL ATTENTION FOR THE HABILITATION OF HEARING:

- Audiologic evaluations:

- o Administration and interpretation of behavioral, physioacoustic, and electrophysiologic measures of the peripheral and central auditory systems (AAA, 2004) appropriate for individual students using calibrated equipment and an appropriate acoustical environment.
- o Use of evaluation materials and procedures that are standardized, developmentally appropriate, and free from cultural bias.
- o Counseling of students, family, and educational team about the implications and impact of identified hearing loss.
- o Completion of follow-up evaluations for students with identified hearing loss based on protocols appropriate for age and type of hearing loss (e.g. ASHA 2004; JCIH 2007), and in compliance with local, state, and federal education requirements.
- o Use of appropriate protocols (e.g. ASHA, 2005) to provide assessment information as a member of an interdisciplinary team to assist in the identification and management of students with auditory processing disorders (APD).
- o Identification of accommodations to facilitate access to education for students with hearing difficulties who are in general education settings (see Section 504 of the Rehabilitation Act of 1973, and The No Child Left Behind Act of 2001).
- **Referral:**
 - o When indicated, facilitation of referrals to community audiologists who have knowledge and skill in pediatric diagnostics and auditory processing disorders.
 - Educational audiologists who do not have access to the necessary equipment for portions of a comprehensive evaluation refer and collaborate with community audiologists to facilitate communication of results and recommendations within the school setting and ensure compliance with educational legislation and recommended pediatric protocols (e.g. JCIH 2007, ASHA 2004, ASHA 2006).
 - o Assistance to educational team members in making referrals for additional medical care, educational assessment, or special education services.

3. PROVISION OF HABILITATIVE ACTIVITIES, SUCH AS LANGUAGE HABILITATION, AUDITORY TRAINING, SPEECH READING (LIPREADING), HEARING EVALUATION, AND SPEECH CONSERVATION:

- Facilitation of the development and implementation of evidence-based guidelines for the provision of habilitation services for students with hearing loss or auditory processing difficulties.
- Provision of functional assessment of students who have hearing loss or auditory processing difficulties and collaboration in the preparation of necessary documentation to qualify students for habilitation and support the appropriate educational placement to receive these services.
- Collaboration in the development and implementation of IEPs/IFSPs including goals, objectives, accommodations, and modifications for curricula and the classroom environment. Development and implementation of an appropriate 504 plan for access to instruction when special education services are not recommended.
- Application of research-based protocols designed to measure ongoing progress and outcomes for students receiving aural habilitation within the educational environment.
- Provision of inservice training and consultation to school personnel, parents, and students concerning audiologic findings and the impact of hearing loss on communication, educational performance, and social skill development.
- Provision of in-depth training for school personnel, parents, and students regarding care and use of personal amplification and/or hearing assistance technology, as well as strategies and techniques to help counteract the impact of noise and reverberation on communication for students with hearing difficulties.

4. CREATION AND ADMINISTRATION OF PROGRAMS FOR PREVENTION OF HEARING LOSS:

- Provision of a comprehensive hearing conservation curriculum that focuses on the process of hearing and hearing loss prevention.
- Collaboration with other school professionals (e.g. nursing staff, classroom teachers, administrators) to develop materials and design activities to disseminate information through coursework (e.g. science, health), as part of a school-wide health fair, or through formal presentations in schools and community events.
- Provision of current resources and materials for school staff, administrators, parents, and students regarding state and federal standards (OSHA, 1993).
- Provision of information about and access to hearing protection devices and equipment.

5. COUNSELING AND GUIDANCE OF CHILDREN, PARENTS, AND TEACHERS REGARDING HEARING LOSS:

- Facilitation of a school-based learning and social environment that addresses communication access for the student who is deaf or hard of hearing.
- Provision of both informational and affective counseling including education of students, peers, parents, and school staff through individual dialogue, consultation, and inservice regarding:
 - The general and individual impact of hearing loss on students' communicative, academic, linguistic, and social emotional development and how this impacts daily living skills and ability to function in their environment;
 - Benefits and limitations of hearing aids, cochlear implants, and assistive devices, as well as use and maintenance of this technology;
 - Communication and environmental strategies to mitigate the impact of hearing loss and foster positive self-identities and self-advocacy skills for students who are deaf or hard-of-hearing.
- Collaboration with and/or referral to additional school and community resources to investigate medical, audiologic, academic, linguistic and/or social-emotional issues that cannot be professionally, ethically or fully addressed by the educational audiologist.
- Assistance with transition planning and support through:
 - Exploration and discussion of communication needs and legal rights and responsibilities following graduation from high school;
 - Identification of relevant community resources (e.g. physicians, audiologists, vocational and mental health counselors, funding sources);
 - Facilitation of mentorship for the transition process from high school to post-secondary educational and vocational experiences.

6. DETERMINATION OF CHILDREN'S NEEDS FOR GROUP AND INDIVIDUAL AMPLIFICATION, SELECTING AND FITTING AN APPROPRIATE AID, AND EVALUATING THE EFFECTIVENESS OF AMPLIFICATION:

- Hearing Aid Evaluation and Analysis
 - Perform hearing aid selection, verification, and validation based on knowledge of current hearing aid options and prescriptive protocols for selecting amplification characteristics (e.g. AAA, 2003) including probe microphone measures, speech perception performance in quiet and noise, electroacoustic analysis, formal and informal behavioral measures (e.g. self-assessment questionnaires, functional listening performance).
 - Ensure amplification monitoring that includes daily listening checks by trained personnel, electroacoustic analysis at least twice a year, and monitoring of classroom performance with amplification.
- Cochlear Implants
 - Maintain a collaborative working relationship with cochlear implant program audiologists, manufacturers, families and school personnel to facilitate appropriate referrals for cochlear implant evaluations.
 - Train school personnel regarding use, daily maintenance, and troubleshooting of various devices.
 - Serve as the educational liaison for students' cochlear implant teams and collaborate closely with the audiologist responsible for programming regarding educational technology that must be interfaced with the student's cochlear implant.
 - Assess classroom performance of students with cochlear implants to determine if additional classroom interventions/technology may be indicated.
 - Monitor student progress and provide resources and strategies designed for cochlear implant habilitation.
- Hearing Assistance Technology (Remote Microphone Technologies and Assistive Listening Devices)
 - Determine eligibility and establish local guidelines for Hearing Assistance Technology (HAT) based on audiologic assessments, teacher/staff input, outside agencies' recommendations, and HAT trials. Specific recommendation for HAT should conform to state and federal mandates and be based on a standard protocol such as that described in the AAA Clinical Practice Guidelines (2008).
 - Assist in the provision of necessary documentation for the procurement of HAT in a timely manner.
 - Provide training of students, staff, and parents in the use, care, and daily maintenance of HAT.
 - Monitor and modify HAT recommendations as necessary.
- Classroom Acoustics and Amplification
 - Collaborate with manufacturers, installers, and school personnel in the selection and use of classroom amplification technology.

- o Participate in the measurement of classroom acoustics and help to determine appropriate signal-to-noise ratios when class is in session for each classroom in which these devices are used.
- o Assist in instructing teachers on effective instructional use of systems and accessories.
- o Ensure that maintenance and monitoring of this equipment is completed on a regular schedule.
- o Serve as a resource for alternative methods of reducing noise and reverberation in existing facilities and promote new classroom design that meets the ANSI standard (ANSI/ASA S12.60 2002).

The Educational Audiology Association considers the following to be necessary components of an educational audiology program:

PROFESSIONAL MANAGEMENT

- Training and Supervision of Support Personnel. Select and train support personnel with instruction and hands-on experiences to perform appropriate support tasks (e.g. hearing screening, amplification troubleshooting, listening checks, and clerical duties) in compliance with local, state, and federal regulations regarding tasks performed by support personnel, as well as amount and type of supervision required.
- Calibration. Ensure proper and timely electroacoustic calibration of all audiologic equipment as required by law. Behavioral checks should include visual inspection and listening checks at the beginning of each day of use.
- Record Maintenance. Maintain records of all services and technology provided, identify outcome data for specific services, and maintain workload data for personnel involved in delivering educational audiology services. Develop and/or adopt standardized forms whenever possible to ensure complete, accurate, and consistent records.
- Program Administration. Provide administrative support for programs that serve students with hearing loss and auditory processing difficulties to include hiring and supervising professionals and support personnel delivering services, developing and managing budgets, preparing required reports and statistics, and representing the program within the school system.

PROFESSIONAL LEADERSHIP/DEVELOPMENT

- Community Leadership/Collaboration. Represent the profession of audiology, the school district, and the needs of children with hearing loss to the community. Provide public awareness activities related to the prevention of hearing loss and the impact of hearing loss on communication, socialization, and educational progress. Foster collaboration between community audiologists and the school system. Participate in quality assurance meetings/activities with community agencies providing services and technology to children with hearing loss.
- Evaluation and Research. Participate in continuing education programs and activities to maintain current expertise in the profession of audiology, specifically focusing on research and best practices in pediatric and educational audiology. Review program outcome data on an ongoing basis to ensure best practices are being implemented and to modify practices and procedures when indicated. Participate in research projects that target evidence-based and cost-effective practices in educational audiology, and apply current research findings to daily practice.

FUTURE DIRECTIONS

Educational audiologists provide comprehensive services to support students with hearing loss and/or auditory processing difficulties in their learning environments. As an increasing percentage of these students receive their instruction in general education settings, school systems and educational audiologists will need to become more flexible in the way that support services are provided and funded. Additional resources and creative strategies to support and train general education teachers will need to be developed. While the professional practices outlined above are based on current mandates and reimbursement within special education legislation, student access to instruction in all environments together with educational outcomes will remain paramount in ensuring future services and professional practices.

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