Current Practices in Assessment of School Functioning for Students who are Deaf or Hard of Hearing by School Psychologists in Iowa

At least 36,710 students with hearing loss served in our nation’s schools (Gallaudet Research Institute, 2008). Two-thirds of these students receive some of their education in settings with hearing students (Karchmer & Mitchell, 2003). However, students who are deaf or hard of hearing are at a disadvantage in language proficiency and social and cognitive development compared to hearing peers. The Gallaudet Annual Survey (2008) reported that 40% of students who are deaf or hard of hearing have additional disabilities, including, but not limited to, learning disabilities. Accordingly, it is vital to provide accurate assessment of these students’ academic and intellectual skills and abilities in order to maximize their access to the general curriculum.

In schools, accommodations and interventions for students who are deaf or hard of hearing begin with the assessment process. Typically, the job of providing assessment falls to school psychologists. School psychologists use assessment for many reasons, from establishing a baseline level of performance and monitoring progress to placement decisions and developing goals for the student (Bradley-Johnson, 1991). The challenge in this role is finding a way to distinguish deaf and hard of hearing students’ cognitive abilities and academic performance from their language deficits (Braden, 2001).

Current Practices

There is a dearth of current literature discussing commonly used and psychometrically sound assessments for students who are deaf or hard of hearing. There has been no recent research regarding the assessment instruments and procedures currently used by school psychologists. There is also little research providing normative samples for standardized
assessments for students who are deaf or hard of hearing. Many of the deaf and hard of hearing norms that the Gallaudet Research Institute has provided are for outdated versions of assessments with obviously outdated norms (for example, using the WISC-R, 1974 versus the WISC-IV, 2003). While it is clearly inappropriate to use outdated versions of assessments, is it any more appropriate to use current versions without appropriate norms?

Another concern in assessment with students who are deaf or hard of hearing is the design of assessment questions. It is not always clear what abilities tests measure in deaf or hard of hearing students (Gilbertson & Ferre, 2008). The ways in which questions are presented may reflect students’ test-taking strategies rather than their knowledge, understanding, or problem-solving skills (Marschark, Lang, & Albertini, 2002). This weakness weighs considerably on students – especially with the federal mandate of full inclusion in schools for students who are deaf or hard of hearing.

Outside the assessment measures themselves, examiners may create difficulties in providing assessment to students who are deaf or hard of hearing. Examiners may not be qualified to assess students who are deaf or hard of hearing due to lack of experience, training, or knowledge. School psychologists, in particular, may face these inadequacies as examiners since they only occasionally provide services for students who are deaf or hard of hearing. Studies have suggested prevalence rates of learning disabilities in students who are deaf or hard of hearing range from 1%-75%. The fault for this wide discrepancy has been attributed to psychologists having a lack of experience with students who are deaf or hard of hearing (Morgan & Vernon, 1994). These specific difficulties in assessment with students who are deaf or hard of hearing present not only ethical dilemmas, but legal issues as well.
Over the past fifteen years, fewer students who are deaf or hard of hearing have been educated in separate, residential schools or spend over 60% of their instruction time outside the general education classroom (Mitchell & Karchmer, 2006). With higher levels of integration, school psychologists must be prepared to offer appropriate, high-quality assessment services to students who are deaf or hard of hearing regardless of whether they serve a deaf residential school or a traditional, general education school. With the decline of separate and residential schools and an increase in the integration of students who are deaf or hard of hearing into general education classrooms, most school psychologists are now providing services to these students in traditional school settings.

For hearing students in traditional school settings, the literature is relatively straightforward in defining best practices for school psychologists providing assessment. However, the implementation of best practices for students who are deaf or hard of hearing is often not clear (Braden, 2001). Best practice for assessment as it applies to the decision-making process for students includes a multi-method, multi-source, multi-setting assessment process (Braden, 2001). While this includes standardized assessment measures, it also considers record reviews, interviews, direct observations and self-report measures from multiple sources across a variety of settings (i.e., home, school, and community). Best practice when working with students who are deaf or hard of hearing has not been defined in the literature. Furthermore, the literature does not make it clear what is currently guiding school psychologists when working with students who are deaf or hard of hearing.

The lack of current research on appropriate assessment instruments for students who are deaf or hard of hearing and the absence of studies reflecting current practices of school psychologists demands that current practices be investigated. How can school psychologists
make the best decisions for these students when it is not evident what assessments ought to be used to inform decisions regarding students who are deaf or hard of hearing?

The purpose of this study, then, was two-fold: 1) to examine current assessment instruments used by practicing school psychologists in Iowa when assessing students who are deaf or hard of hearing, and 2) to gather information about these same school psychologists’ practices, competencies, and knowledge of best practice regarding this population. More specifically, this study investigated the following research questions: 1) What standardized assessment tools are school psychologists using with students who are deaf or hard of hearing?, 2) Are school psychologists using accommodations during these assessments?, 3) Do school psychologists report that they are qualified to work with students who are deaf or hard of hearing?, 4) Do school psychologists report knowledge of best practices for students who are deaf or hard of hearing and follow them in their practice? and, 5) Do reports of competence increase with more years of experience or a greater education level?

Method

Participants

Participants in this study were school psychologists practicing in the state of Iowa identified through the Iowa Department of Education. The electronic survey was sent to 328 school psychologists in Iowa. School psychologists were selected to participate if they agreed to complete the survey. Eighty-seven psychologists participated in this study.

Measures

An online survey, based on previous surveys of assessment practices with students who are deaf or hard of hearing was designed to address the research questions. This survey consisted of 19 questions with three of the questions asking for further clarification of a “yes”
response. Five questions used a five-point Likert scale, and targeted current attitudes and beliefs about competency. Additional space was provided at the end of the survey for comments.

Procedures

The initial recruitment letter with a link to the survey (published via Websurveyor) was sent via e-mail to the school psychology state consultant at the Department of Education. He then forwarded the e-mail to his list of practicing Iowa school psychologists. Ten days after the first recruitment e-mail, a reminder e-mail was sent by the principal researcher to the state consultant to ask him to re-send the recruitment letter. Finally, a third and final e-mail recruitment letter was sent. All told, the survey was available for responses for four weeks. Eighty-seven out of 328 school psychologists completed the survey, a return rate of 26.5%. When the survey was closed, WebSurveyor and SAS Statistical Analysis Program were used to examine responses.

Results

1) What standardized assessment tools are school psychologists using with students who are deaf or hard of hearing?

The results of the survey showed that a total of 66 out of 87 school psychologists have administered assessments to students who are deaf or hard of hearing. The largest percentage of assessments given fell into the category of intelligence assessments (see Fig.1). Following intelligence assessments, the second most frequently reported category of assessments was achievement assessments. The final standardized assessment category school psychologists reported using were Behavior/Social/Emotional scales. As with the previous category, there was not a wide variety of assessments reported.
There were six comments regarding the use of “other” assessments. Of these six comments, five reported using curriculum-based measures or other qualitative measures.

2) Are school psychologists using accommodations during these assessments?

Of the 66 school psychologists who reported administering assessments to these students, 19 reported having used accommodations during the assessment procedures, while 11 reported not using accommodations. Of the school psychologists reporting accommodations, 72% used interpreters (n=13), 39% reported using a modified assessment – only part of the assessment was given (n=7), 28% allowed for extended time on the assessment (n=5) and 1% reported “other” (n=1), including reporting scores both within and outside of time limits, providing a quiet area for assessment, repeating and clarifying directions, and using amplification equipment.

3) Do school psychologists report they are qualified to work with students who are deaf or hard of hearing?

There was one school psychologist who did not respond to this question. Of the remaining 86 responses, 19.8% reported that they were “not at all qualified” (n=17), 47.7% reported their qualifications were “below average” (n=48), 27.9% reported their qualifications were “average” (n=24), 3.5% reported their qualifications were “above average” (n=3), and 1.2% reported their qualifications to work with deaf or hard of hearing students as “proficient” (n=1).

4) Do school psychologists report knowledge of best practices for students who are deaf or hard of hearing?

There were two school psychologists who did not provide a response to this question. Of the 85 who did respond, 27.1% felt they do not have any understanding of best practice for these students (n=23), 40% reported they are below average in their knowledge of best practice for deaf or hard of hearing students (n=34), 28.2% reported average knowledge of best practices for
these students (n=24), 3.5% reported above average knowledge of best practices (n=3), and 1.2% reported proficient knowledge of best practices for students who are deaf or hard of hearing (n=1).

5) Do positive reports of competence increase with more years of experience or a greater education level?

Frequencies of responses within each level of each of the independent variables appeared to be equally distributed. As such, a one-way analysis of variance (ANOVA) was used to examine the data. A 0.05 alpha level was used. When examining self reported competence score, no significance was found for a main effect of years of experience on the competence scores, $F(5,80)=1.83, p=0.1159$. Similarly, a one-way ANOVA yielded no significant main effects for type of degree and self-reported competence rating, $F(2,83)=0.06, p=0.9408$.

**Discussion**

Data on the practices of school psychologists with the population of deaf or hard of hearing students are scarce. What data are available are outdated. This study was undertaken in response to the lack of current information as a first step toward identifying appropriate assessments for students who are deaf or hard of hearing. The purpose of the present study was to examine practices used by school psychologists in Iowa. With current information on practices and knowledge, future research can identify best practices.

From the results, it is evident that the assessments being used with students who are deaf or hard of hearing are inappropriate. The leading intelligence assessment used, the Wechsler Intelligence Scales for Children - Fourth Edition, does not have normative samples for students who are deaf or hard of hearing. This is true for most of the assessments reported. Although the
assessments being used are psychometrically sound, it is troubling that they are being used
without appropriate normative samples.

An unintended response was found regarding the “other” types of assessment the school
psychologists administered. Several school psychologists who selected “other” reported that
they were using curriculum-based measures and other non-standardized, qualitative methods of
assessment. This study did not directly seek to investigate non-standardized methods of
assessment for students who are deaf or hard of hearing, but it is interesting that school
psychologists reported the use of these types of assessment.

This study also found that the majority of school psychologists assessing students who
are deaf or hard-of-hearing use accommodations when possible. Of the school psychologists who
have used accommodations, the majority reported using interpreters. This is promising, as the
literature and the law suggest that if a standardized assessment needs to be administered, the
student should, at the very least, have the assessment administered in his/her language. The
second most frequently reported accommodation was modified assessment. This suggests that
only part of the assessment instrument is being given. Comments on this question indicated that
school psychologists are only giving the performance portions of standardized assessments with
verbal components. This is another accommodation supported by the literature to help increase
the validity of assessment results for students who are deaf or hard of hearing, although most
standardized assessments do not have norms for this method of administration.

The findings also suggest that school psychologists in the state of Iowa are fairly uniform
in their reports of competence in working with students who are deaf or hard of hearing. It is,
however, troubling that the self-reported competence levels most frequently fell below average.
Additionally, this study suggests that school psychologists do not have a sufficient knowledge
base about students who are deaf or hard of hearing. Over 67% of the school psychologists surveyed reported their qualifications to work with students who are deaf or hard of hearing as either below average or nonexistent. Furthermore, just over 67% of school psychologists reported at least a below average knowledge of best practices for this population. Although it is promising that the vast majority of school psychologists in Iowa (86%) who responded to this survey reported that they would most often or always want to seek out more information and training about the deaf and hard of hearing population if they were assigned to work with one of these students, only 41% reported the same amount of knowledge about how to access information on this population.

**Future Directions**

Professionals in the field of deaf education have encouraged more research and training in the area of standardized tests, including statewide assessments, for use with students who are deaf or hard of hearing (Luckner, Muir, Howell, Sebald, & Young, 2005). Additionally, foundational work on the practices of school psychologists has demonstrated a need for assessments and techniques that are specially aimed toward assessment with individuals who are deaf or hard of hearing. Until such assessments and techniques are developmed, extreme caution must be exercised when using standardized tests as the sole basis for decision-making about students who are deaf or hard of hearing.

A second direction to be examined in deaf and hard of hearing assessment lies in the use of American Sign Language (ASL) as a means of assessment itself. By assessing the acquisition of ASL as a language and development of signing abilities, a foundation of skills can be established and used toward the assessment of other abilities of students who are deaf or hard of hearing. This information can later be used to inform interventions.
Conclusion

The goal of this study was to investigate current practices of school psychologists when administering standardized assessment for students who are deaf and hard of hearing. School psychologists in Iowa are uniform across education levels and years of experience in their reports of competence to work with students who are deaf or hard of hearing. However, the majority of competence ratings were below average. Additionally, several of the assessments school psychologists reported using do not have normative samples for use with students who are deaf and hard of hearing. It is positive that school psychologists reported wanting more information for this population, but unfortunately, they were uncertain about where to find it. Hopefully, findings will spur discussion and research in the area of assessment for students who are deaf and hard of hearing and further define best practices for providing thorough, high-quality, and accurate assessment for these students.
References


Figure 1: Number of assessments given by type. Illustration of the number of assessments given to students who are deaf or hard of hearing, grouped by assessment category.

Table 1
Summary of ANOVA

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