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A study of the TAGS, an enduring teaching tool: teachers' perspectives on the Teacher Assessment of Grammatical Structures teaching practices and application

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A STUDY OF THE TAGS, AN ENDURING TEACHING TOOL: TEACHERS' PERSPECTIVES ON THE TEACHER ASSESSMENT OF GRAMMATICAL STRUCTURES TEACHING PRACTICES AND APPLICATION

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Abstract: This paper is a studied look at the TAGS, TASL, and CASLLS criterion-referenced language assessments as well as an inquiry into how teachers of the deaf use the TAGS currently as a teaching tool.

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Introduction for Independent Study

The Teacher's Assessment of Grammatical Structures is a criterion-referenced language assessment, written in 1983 by Jean Moog and Victoria Kozak (Moog & Kozak, 1983). Since its creation, the Teacher's Assessment of Grammatical Structures (TAGS) has been used at the Central Institute for the Deaf as well as other programs educating children/students with hearing impairments and students with language impairment. (For the purpose of this paper, we will not address the issues of language acquisition of language-impaired students.) The three language assessment forms, the Pre-Sentence, Simple Sentence, and Complex Sentence forms, are used to document the spoken language of students on a day to day basis. The primary purpose behind the forms is to capitalize on teacher's experiential knowledge of language development and his or her holistic knowledge of the student to determine current language abilities and educational objectives for that student. The TAGS language assessment has remained unchanged in format after its copyright date; however, many changes applicable education of students with hearing impairment have occurred. One of the most significant of these changes was the Federal Drug Administration's approval of cochlear implants in a pediatric population.

In addition to improvements in hearing devices, early intervention, aural habilitation, and the decreasing age of children receiving cochlear implants and digital hearing aids have impacted the rate at which children with hearing impairment acquire language. The methods of teaching language to children with hearing impairment have also changed. "The implementation of newborn hearing screening, technological advancements in cochlear implants and hearing aids and cochlear implantation as young

as 12 months of age have led to increased optimism that deaf children may reach new levels of communicative, social, and academic achievement" (Wilkins & Ertmer, 2002, p. 196). Despite all of these advancements and changes that pertain to the deaf education field, the TAGS has remained unchanged in form.

Purpose

This paper will examine the context of the TAGS' inception and convey its intended use. Because several other criterion-referenced language assessments are now available to the public and are used within the deaf education field, this paper will specifically discuss two of these commonly used language assessments, the Teacher Assessment of Spoken Language (TASL) and the Cottage Acquisition Scales for Listening, Language, and Speech (CASLLS). The TAGS forms predate these language assessments (TASL and CASLLS) but share many similarities with them. The scope of this paper will include an examination of the history behind the TAGS forms, their creation, their intended use, and their current use. Finally, the paper will discuss the author's findings from a survey, which examined how the TAGS forms are currently used by teachers of the deaf throughout the country. The paper will contain a synopsis of the findings, note trends that appeared within the data, and convey implications which these findings might hold for the TAGS as a language assessment and instructional tool.

Before the TAGS

Prior to the development of the Teacher's Assessment of Grammatical Structures (TAGS), a number of methods were available to assess and document the language of children with hearing impairment. It is important to note the predecessors of the TAGS

in order to give a well rounded as well as contextual understanding of the TAGS forms themselves as well as their intended use.

In 1975, Jean Moog and Ann Geers published the Scales of Early Communication Skills for children with a hearing impairment (SECS) through the Central Institute for the Deaf (CID). The SECS were designed to be a tool to "evaluate speech and language development of hearing-impaired children…," an evaluation which was to be done by the classroom teacher (Moog & Geers, 1975, introduction). In following years, new language assessments were developed and published by CID. The Grammatical Analysis of Elicited Language (GAEL) was one such assessment (Moog & Geers, 1978; Moog & Geers, 1980; Moog & Geers, 1983). The GAEL, which is now out of print, was a series of standardized syntax assessments, which included three formats, the GAEL Pre-Sentence test, the GAEL Simple Sentence test, and finally the GAEL Complex Sentence test. The forms tested verbal and non-verbal receptive and expressive language of children with hearing impairment and were standardized on children with hearing impairment and children with normal hearing. Development of the forms was directly related to the realization that the SECS forms could and should be improved upon. The authors explain in the TAGS manual that, "although the SECS was a useful first step in evaluating communication behaviors of hearing-impaired children, a more standardized procedure was needed in a clinical setting" (Moog & Kozak, 1983, p. 10). The GAEL was developed to meet this need. Much as the GAEL was developed after realizing the need for standardized testing in a clinical setting, left unmet by the SECS, Moog, Geers, and Kozak realized a need for an assessment within the classroom. This need for a clear classroom component began the development of the TAGS. The tool was developed over

ten years and was first published in 1983 (Moog & Kozak, 1983). "The TAGS was a result of experience with the SECS… [It was] designed as a way to measure the effectiveness of teaching in a visual way. Teachers had been using the SECS and wanted more definition within categories… [A]t the time [teachers] could rate in 'imitated' not beyond, etc" (J. Moog, personal communication, January 15, 2007).

The TAGS was developed as a companion to the GAEL forms. In the authors' words, "the Teacher's Assessment of Grammatical Structures rating forms were developed as the classroom teacher's counterpart of the standardized GAEL tests" (Moog, Kozak, & Geers, 1983, p. 10). Like the GAEL forms, the TAGS has three different forms, the Pre-Sentence forms, the Simple Sentence forms, and the Complex Sentence forms. The TAGS forms are criterion-referenced instead of a standardized assessment. TAGS forms "list grammatical structures in an expected order of development" (Moog & Kozak, 1983, p. 6). The teacher of the deaf is expected to monitor those grammatical structures which a student verbalizes or does not verbalize in various contexts. These contexts are listed as "Comprehension" (only included on the Pre-Sentence TAGS form), "Imitated production," "Prompted production," and "Spontaneous production." The forms were designed to be updated throughout the school year to give a clear assessment of the students' language usage as well as document progress. This knowledge would help guide teachers' choices as they planned language instruction for each student.

Developing the TAGS

The development of the TAGS is explained generally within the manual. It briefly gives an overview of the language assessments which predate it and gives

rationale for development of the TAGS'. Also, the manual explains the basis for the forms:

> On each rating form the grammatical structures are listed in an expected order of development. This order grew out of the intertwining of our experience in teaching hearing-impaired children, our experience with standardized language tests, our experience with and knowledge about language tests, our experience with and knowledge about language development of normal-hearing children, and our understanding about the ways in which instruction for hearing-impaired children can parallel normal language development (Moog & Kozak, 1983, p. 6).

The authors first related their previous reluctance to rate the language structures in any order whatsoever stating, "We tried for a long time to avoid recommending a sequence in which the structures of English syntax should be taught. We anticipated that psycholinguists and other professionals knowledgeable about language might be critical of an attempt to suggest such a sequence" (Moog & Kozak, 1983, p. 9). Despite this reticence, Moog and Kozak state the necessity of developing an order, and finally conclude and defend their choice of ordering language structures in the assessment:

> It is difficult to sort to what degree the order in which the structures are listed reflects what children have been taught and to what degree the order reflects what children have been taught and to what degree the order reflects what might have developed without planned teaching. However, this distinction is primarily a philosophical one. It is precisely because language must be taught that is essential to develop some sort of logical sequence (Moog & Kozak, 1983, p. 6).

Nothing beyond experiential knowledge is listed within the manual as the basis for the TAGS forms. However, interviews with both authors revealed that the process behind the TAGS' development was deliberate and methodical.

The development of the TAGS forms occurred over several years. The primary authors of the TAGS forms, Jean Sachar Moog and Victoria Kozak, collaborated with many of the teachers at the Central Institute for the Deaf (CID) and researcher Ann Geers. Jean Sachar Moog explained that the TAGS forms were developed during the time that the experimental project in instructional concentration (EPIC) project was also

being conducted at CID. This effort developed several teaching methods and tools at CID and was under the direction of Jean Moog. A school curriculum was also developed as well as the TAGS during this time (Moog & Geers, 1999). During the EPIC project, "the overall school organization broke down into small groups which had to evaluate progress as part of the project. The TAGS came from that." (J. Moog, personal communication, January 15, 2007)

Victoria Kozak Robinson added to this stating that the TAGS forms were borne out of a need to reach a middle ground in teaching language to students with hearing impairment within CID. Kozak-Robinson noted that at the time the TAGS forms were written (during the late seventies and early eighties) there were two different schools of thought in language instruction at CID. One group believed language acquisition happened naturally. "They felt they should bathe children in language and pattern instruction in a way similar to [how] hearing children are taught, through talk and play" (V. Kozak-Robinson, personal communication, March 8, 2007). The other group was teaching language in a very structured way, "like diagramming a sentence" (V. Kozak-Robinson, personal communication, March 8, 2007).

At that time, the SECS was still in use at CID as a teacher language assessment; however, the SECS were not as effective as the authors had hoped it would be. The TAGS was "designed as a way to measure the effectiveness of teaching in a visual way. Teachers had been using the SECS and wanted more definition within categories" (J. Moog, personal communication, January 15, 2007). Once the need for a criterion-referenced language assessment different from the SECS was recognized, Moog and Kozak began compiling linguistic information: spoken language samples from students

with normal hearing, language structures and vocabulary from current language assessments (Peabody Picture Vocabulary Test (PPVT), Clinical Evaluation of Language Fundamentals (CELF), etc.), language from children's literature books, college grammar books including Understanding and Using English Grammar, and from language samples of students with normal hearing ages four, five, and six collected at public schools in the St. Louis area (V. Kozak- Robinson, personal communication, March 8, 2007). The authors began compiling all the language structures they encountered. They created list after list finally developing a master list and then began attempting to organize it. The organization development strove to create a series of lists and variety of structures that occurred in the language of children with normal hearing while also developing a hierarchical order of these utterances. "We wrote and rewrote master list after master list. We didn't pretend we could get it all…(V. Kozak-Robinson, personal communication, March 8, 2007)." The researchers asked themselves "if the language structures weren't complete, how could we write it in an organized way." (V. Kozak-Robinson, personal communication, March 8, 2007) Moog and Kozak used these language samples to determine a hierarchy of the language structures used by children with normal hearing and to organize those structures by sequence of development.

Teacher Assessment of Spoken Language

Because the Teacher Assessment of Spoken Language (TASL) was developed in part by Jean Moog, who also developed the TAGS forms, the criterion-referenced forms are similar. The TASL was developed and based on Jean Moog's and Julia Biedenstein's experiences with the TAGS. Though the concept of rating a child's use of language is shared as the primary focus on both forms, the TASL is different in format and in the

targets that are rated on the forms. The "[i]mpetus of the TASL was the way kids were learning was changing…[The] TAGS charting used too small of increments because kids learn [more language] rapidly… It's a totally different world because something equated with sound. Those students who can learn through listening in a way that deaf children couldn't as they did when I was teaching. Now [the language] doesn't need to be analyzed so carefully…" (J. Moog, personal communication, January 15, 2007). In addition to rating syntax, teachers using the TASL also rate Sentence Level, which the authors define by sentence complexity and length, as well as the parts of speech used in the utterance, which is called the syntactic elements. These two items, Syntactic Elements and Sentence Level, are evaluated to determine which level of language development the child is using and to what level the child can be instructed to learn and use specific language structures. The TASL forms list five such levels:

Level 1: Single Words and Word Combinations
Level 2: Simple Sentences of 3 or More Words
Level 3: Simple and Complex Sentences of 6 or More Words
Level 4: Complex Sentences of 8 or More Words
Level 5: Very Complex Sentences of 10 or More Words (Moog & Biedenstein, 1998, p. 3).

The context in which these sentences are produced, ranging from spontaneous use to elicitation in a highly structured activity, are taken into account when determining the child's sentence level. This level "is based on the child's typical level of talking" (Moog & Biedenstein, 1998, p. 3). This "typical level of talking" is specifically defined within the TASL manual. It outlines the parameters by stating, "specific criteria are outlined and explained for rating a child as having acquired a particular Sentence Type or Syntactic Element. The intent is that the child have enough facility using the Sentence

Type or Syntactic Element that it is automatic and the child does not have to think about it in order to produce it" (Moog & Biedenstein, 1998, p. 7).

Also included on the TASL is a brief description of speech, its relation to language, and the complicated interaction between the two. The TASL outlines that the speech target to be counted as a word, phrase, or sentence. "it must be recognizable but it does not have to be articulated accurately" (Moog & Biedenstein, 1998, p. 9). This means, in short, that the placement and manner of the produced speech sound should be similar to that of the target speech sound to be considered a proper approximation. Also, explained is the expectation that the vowel in a word, phrase, or sentence, should "not be more than one vowel position away from the intended vowel in terms of tongue height" (Moog & Biedenstein, 1998, p. 9).

The TASL is mentioned in research studies with children who have hearing-impairment (Moog, J. 2002; Wilkins & Ertmer, 2002); however, it is not a standardized language assessment; it is mentioned only as a classroom tool. The TASL like the TAGS is a criterion-referenced tool based upon deaf educator's experiences and knowledge of language development of students with hearing impairment and requires subjective observations. For this reason, the TASL includes the following statement, "until objective data can be collected on a large number of deaf children, teachers will have to estimate the expected progress based on their experience with the particular child being rated and with other children in that teacher's experience" (Moog & Biedenstein, 1998).

The manual for the TASL emphasizes the importance of the teacher's role in evaluating the student's spoken language and articulation as well as developing how he or she listens to the child each day. The teacher's attentive listening is intended to better

assess what language is and is not being produced, to determine how to target structures needing to be taught, and to create opportunities to improve and expand speech and language. In support of this assertion is the bolded manual statement "The TASL CAN HELP TEACHERS BECOME BETTER LISTENTERS AND HELP THEM TRULY TAKE NOTE OF WHAT THE CHILD SAYS, AS WELL AS WHAT THE CHILD OMITS OR SAYS INCORRECTLY" (Moog & Biedenstein, 1998, p. 2).

After evaluating the student for several weeks in a classroom setting (during both structured and unstructured activities), a teacher fills the TASL form with markings used to indicate at which stage the child is using language structures exhibited on the forms. This visual representation is similar to that used on the TAGS in that they are a reflection of the student's language skill level. The skill levels listed on the forms are "Acquired" and "Emerging." These two terms serve a dual purpose on the forms. For example "Acquired" has a box behind it, which can be filled with an X, meaning the child exhibits his or her ability enough to be considered having an acquired use of the form. On the other hand, "Acquired" with partial marks in the box indicates the language structure is a selected goal on the forms; therefore the teacher may conduct lessons to elicit and practice the structure to promote acquisition or mastery of it. Similar markings are used on the forms for "Emerging" skills: a slash indicates that the language target is being used, but not to the degree or facility that is required to be considered an acquired skill and two hash marks indicates the emerging skill is a teaching objective, but that the teacher will not attempt to have the child fully develop the skill.

The Cottage Acquisition Scales of Listening Language and Speech

The Cottage Acquisition Scales of Listening, Language, and Speech (CASLLS) was developed by Elizabeth M. Wilkes (Wilkes, 2001). The criterion-referenced language assessment tool was copyrighted in 1999, but the 2001 edition will be discussed in this paper. Of the three criterion-referenced forms, the CASLLS is the most recently published. It holds many similarities with the TAGS and the TASL forms. Commenting on the similarities, Moog stated " [the] CASLLS very much based on the TAGS" (J. Moog, personal communication, January 15, 2007); but the CASLLS also expands and includes some criteria that are not exhibited on the other forms.

The CASLLS consists of five criterion-referenced forms and a user's guide. Four of these five forms address developing language skills while the fifth is a form that discusses sound awareness. The four language forms include the CASLLS Pre-Verbal form, the Pre-Sentence form, the Simple Sentence form, and the Complex Sentence form. Each form is increasingly complex and the criteria for each is hierarchical as well.

One of the most prominent differences from other criterion-referenced language assessment is that the CASLLS, while monitoring language development, also includes social and cognitive parameters within the forms. Along with this is the display of expected ages when these skills/ language structures are developmentally appropriate. The manual explains this rationale by stating, "there is a cognitive basis to language acquisition initially, and language acquisition feeds cognition in a symbiotic relationship" (Wilkes, 2001, p. 1). The manual also goes on to explain that the social basis of language must also be developed to promote language development. This basis is an example of another difference that lies between the CASLLS and the TAGS and TASL, the

foundation of the forms. Wilkes, though using her background experience in linguistics and experience teaching students with hearing impairment, also heavily relied upon the literature of research to create the CASLLS forms (Wilkes, 2001). (The literature referenced within the CASLLS manual spans several decades and areas and is an extensive volume of information.) Often within the manual, Wilkes cites research studies and theories to substantiate the presentation and rationale of the criteria listed on the forms as well as the suggested method of using the forms. Take for example the foundation for the CASLLS sounds and speech form. This form lists "articulation objectives…in the order of development prescribed by Daniel Ling" (Wilkes, 2001, p. 4). Furthermore, the complete work of the CASLLS was based upon Yoshinaga-Itano's theoretical beliefs and research, which is fully outlined in the introduction of the user's guide. The TAGS and TASL, though borne out of knowledge of objective research and experiential knowledge, did not exhibit this research knowledge and use of literature within its rationale.

Like it's predecessors, the CASLLS manual explains the system of indicating at what stage a language skill is being used, if at all. The descriptive terms used in this system are: emerging, mastered, and generalized. The manual defines each of these terms as follows:

> Emerging – the behavior has been observed at least once.
> Mastered in some contexts – the child uses the behavior accurately, but perhaps only in class or therapy.
> Generalized – The child never or almost never makes an error; the target is used easily and in a wide variety of settings (Wilkes, 2001, p. 6).

Also unique to the CASLLS is the extensive instructional component in the user's guide. The guide explains the rationale of the forms and the recommended language sampling methods. Though each of the language assessments discussed are to be a reflection of the

student's language as it develops during the school year, the CASLLS specifically dedicated several pages to the importance and helpfulness of language sampling. It describes how to collect a language sample, how to transcribe it, and finally how to transfer the data onto the CASLLS forms. The manual also includes language instruction recommendations and language lesson activity ideas as well. The remainder of the manual explains cognition, semantics, syntax and morphology, phonology, and pragmatics as well as the roles they each play in developing language. It purposefully avoids jargon (terminology of professionals) and defines terms within the text as well as at the back of the manual (Wilkes, 2001).

Beyond what is printed in the manual, the method used in developing the CASLLS has not been published. Also, because it is a criterion-referenced language assessment, the forms are not used in research studies, and therefore are not found in the literature. The author of this paper was unable to interview Dr. Wilkes due to her untimely death in 2005.

About the TAGS

The first of the TAGS forms was published in 1983 with the other two forms published shortly thereafter. Each TAGS form lists various parts of speech horizontally in columns. For example, the Simple Sentence TAGS form lists six parts of speech which include a column for each of the following syntactic categories, noun modifiers, pronouns, prepositions, adverbs, verbs, and questions. Under each of these columns lie language structures that fall within its syntactic category. The rationale for this organization as stated in the TAGS manual is that, "this approach to language instruction requires a hierarchical listing of desired skills" the purpose of which is ultimately "so that

the teacher can first evaluate skills the child has acquired and then select the skills that the child should learn next" (Moog & Kozak, 1983, p. 9). It was hoped that a visual layout would be one of the most helpful aspects of the teaching tool. Kozak-Robinson explained in an interview, "what I still think teachers of the deaf need to know is the sequence. It [TAGS] helps teachers answer the question 'how do I know what things [language structures] to pick?' It is a tool which helps teachers [be] analytical, sequential, and organized" (V. Kozak-Robinson, personal communication, March 8, 2007).

The forms are designed with a focus on grammatical structure, or syntax. Not only is the number of words in the utterance considered when using the forms, but also the types of words in combination is examined when rating the structures used. Single words and phrases of up to three words are rated on the Pre-sentence form; phrases and sentences of at least four words or more in length are rated on the Simple Sentence form and complex sentences are rated on the Complex Sentence form. The term "rating," when used in connection with the TAGS forms, means establishing in what context the child can produce a language structure, whether it be in comprehension only, imitated production, prompted production, or spontaneous production. And finally, the forms allow a way to demarcate to what degree the language structure is mastered, whether it be an "acquired", "emerging", or "selected objective," a structure which the teacher has selected for learning. These terms, as well as the specific details of using the forms, are all explained in detail in the TAGS manual (Moog & Kozak, 1983).

Typical Language development

The development of language has been much debated and researched throughout history. Many theorists question the process of acquisition as well as its role in

cognition. The interest of this paper is not to debate theories or hypotheses of how language is typically acquired or by what mechanism; however, when studying language development a child with hearing impairment, this must be addressed since the instruction of language to a child with hearing impairment child is based on the knowledge of normal language development. As Donald F. Moores writes in Educating the Deaf: Psychology, Principles, and Practices:

> Children with hearing can be considered linguistically proficient in every sense of the word. They have a knowledge of the basic rules of their language. They can produce a potentially infinite number of novel yet appropriate utterances and, because of their unconscious mastery of the grammatical structure of their language, can combine and recombine its elements indefinitely. They can produce and understand sentences to which they have never been exposed. They use language in different ways in a variety of situations to fulfill a number of pragmatic functions. These children enter the formal education system around age six armed with an invaluable instrument for learning—language and communication ability—acquired without conscious effort on their part of that of their parents. (Moores, 2001, p. 6)

Moores contrasts the child with normal hearing's acquisition and use of language with that of the child with hearing impairment, stating, "profoundly child/student with hearing impairment children generally have not acquired a language naturally and automatically (unless they have deaf parents). They need intensive compensatory training" (Moores, 2001, p. 7).

The TAGS were designed out of this need "for intensive compensatory training," but also have been based upon what is known about the language of normally developing children. As Kozak-Robinson explained, she took countless language samples of school age children, forming lists of language structures children use and at what age she found that they produced them. This language sampling method has been widely used in the field of language research. The design of language collection is very similar to that of Jean Piaget, Roger Brown, and several other researchers who based their language

theories upon actual language productions. (Piaget, 1959; Brown, 1973, etc). This method, collecting language samples from normally hearing children, is what the TAGS was also based upon. The body of research and sampling is what prompted Moog and Kozak to write "most children who acquire language without specific teaching, and who are neither hearing-impaired nor language-impaired have acquired the structures rated on the TAGS-P by age 2-2 ½, the structures on the TAGS-S by age 3-4, and structures on the TAGS-C by age 4-5" (Moog & Kozak,1983, p. 6).

Because the TAGS only addresses the language of typically developing children up to age five, this paper will not address language acquisition past age five. The author acknowledges that language development continues past this age and agrees that language development "does not cease when the individual reaches school age, nor for that matter adolescence or maturity; the development process continues throughout the life cycle" (Gleason, 2005).

The development and acquisition of language and depend largely on the language itself, the mother language. For the purpose of this paper, we will exclusively discuss spoken English since different languages have differing sequences of development of specific language structures, syntax, morphemes, etc. (Gleason, 2005). Also, over time researchers have come to different conclusions about the rate, sequence, and structures acquired in language. The basic order of emergence of language structures has remained the same. What has changed however is how these stages of language acquisition are described. As Gleason writes:

> [I]nvestigators of child language have long been interested in how best to characterize Stage I language. There have been a number of changes in these characterizations as the focus shifted from one significant feature to another. However, these changes do not reflect differences in the data but in the kinds of

> categories imposed on the data by different researchers. The challenge is to ascribe neither too little nor too much knowledge of syntactic categories or rules to the childe just beginning to acquire syntax. (Gleason, 2005, p. 159).

Understanding the fact that the descriptors and categories to explain language acquisition change but the order of language development remains largely the same, we will proceed using data from one researcher in the field, Roger Brown. To prevent confusion this data will be used consistently.

Roger Brown's study of language acquisition led to the development of his theory based on the length of utterances that children use, looking specifically at morphological markers. (It will be remembered that a morpheme is the smallest unit of meaning used in language.) Brown took language samples of three children and investigated the mean length of utterance for each spoken utterance coding the morphemes of each. Using this data, he identified five stages to describe the language structures the children were using and the increased complexity of this spoken language. Brown's research allowed that the order of language structures used could be predicted (two word combinations versus four word combinations) as they remain largely constant, but the rate of acquisition, and therefore age of acquisition, does vary from individual to individual. "There is a wide variability in the onset of combinatorial language. Some children begin as early as fifteen months, the average seems to be at about eighteen months, and by the age of two almost all children are producing some word combinations" (Bates, Dale, & Thal, 1995 qtd. in Gleason, 2005, p. 155). Because of this, Brown used the mean length of utterance to measure syntactic development independent of the child's age (Gleason, 2005).

Browns' Stage I consists primarily of two word combinations. Children become aware of word order around seven months of age, and they begin incorporating this knowledge in their own oral language several months later (Cole, Cole, & Lightfoot,

2005). These manipulations of language, documented by Brown include the following: nomination, recurrence, negation (including denial, rejection, and non-existence), subject + verb, subject + object (noun), verb + noun, noun+ noun (location), possessive subject + object, subject + adjective, and demonstrative + noun (Bowen, C., 1998). Brown labeled these two word combinations Stage I in his five-stage model of language development.

Once a child's language develops past Stage I, she begins combining words in longer semantic relations as well as further developing their use of grammatical morphemes. Brown hierarchically listed 14 of these morpheme additions.
Stage II develops between 28 and 36 months of age and includes the development of the grammatical morphemes: present progressive, prepositions (in and on), and the use of "s" for plurals.

Stage III develops approximately between 36 and 42 months of age and includes developing the irregular past tense, "s" for indicating possession, and using the uncontractible copula (to be verb).

Stage IV develops between the age of 40-46 months and includes the use of articles, regular past tense verbs, and conjugation for the third person with present tense regular verbs.

Stage V begins at approximately 42 months of age and continues to develop past 52 months of age. In this stage, children develop the use of the third person irregular verb conjugations, the uncontractible auxiliary (to be) verb, the use of s as a contractible copula, and the contractible auxiliary (to be). (Bowen, C., 1998) After Stage V language development does not cease; however the structure and knowledge of rules of the English language are in place for the child to

build upon. Language continues to develop, but at this point is very difficult to assess and will not be discussed in this paper.

Development of Language in Children with Hearing Impairment

Though the previous section discussing typical language development in children does not discuss the mechanism of language learning, it is a fact that language learning begins well before the child's first produced word. This is because a child's language acquisition is rooted in his or her language exposure. Children with normal hearing learn language incidentally by overhearing the language spoken around them. For children with severe to profound hearing impairment this is not the case. The hearing impairment "limit[s] linguistic exposure," and as a result, "language development may be severely hindered" (Gleason, 2005, p. 326). As Geers and Moog write, "A major consequence of severely deficient hearing has been its interference in the development and use of spoken communication" (1999, p. 1130).

The degree and type of hearing loss plays a role in how language acquisition is affected. A myriad of variables exist in language development for a child with hearing impairment. Different technological interventions and programs can be implemented to help lessen this effect on language, but it must be understood that due to an impairment of the auditory channel, language development is affected. Many articles and research studies have attempted to document the effects hearing-impairment has on language development as well as the effectiveness of different technologies and teaching strategies in language development. Again, many variables complicate the results of these studies including individual differences, intelligence quotient, hearing loss severity and type,

amplification or prosthesis used, age of onset of deafness, age of diagnosis and intervention, mode of communication, etc. However, over the years, age of diagnosis and early amplification have proven very significant in improving both language acquisition and rate of acquiring language.

All of these factors are relevant to the discussion of language development in individuals with hearing impairment, but this examination is presented because, "a major goal in developing language intervention programs for individuals who have hearing impairments (HI) is that of identifying those aspects of their language that seem to present special difficulties" (Ross, Brackett, & Maxon quoted in Tur-Kaspa & Dromi, 2001, p. 79). This paper will address some of these linguistic difficulties and improvements by looking at the body of research chronologically.

In their 1978 article "Syntactic Maturity of Spontaneous Speech and Elicited Imitation of Hearing-Impaired Children," Geers and Moog used the Carrow Elicited Language Inventory (CELI)[1] and the Developmental Sentence Analysis (DSA)[2] to determine the syntactic maturity of 52 children with hearing impairment between the four and 15 years of age at the Central Institute for the Deaf (Geers & Moog, 1978). They collected spontaneous language samples of these children ages seven to eleven years and compared them to the language of normally hearing peers. The results from the comparative study indicated that 56% of the hearing-impaired children "obtained developmental sentences scores below that of average normal-hearing three-year-olds" on the DSA (Geers & Moog, 1978, p. 384). On the CELI, "51% of hearing impaired group members made more errors than the average three-year-old in the normative

[1] Carrow, E. (1974*). Elicited Language Inventory*. Austin, TX: Learning Concepts.
[2] Lee, L. L. (1974). Developmental Sentence Analysis. Evanston, IL: Northwestern University.

sample" (Geers & Moog, 1978, p. 387). These scores of syntactic maturity showed that children with hearing impairment were significantly delayed when compared to children with normal hearing. These scores are indicative of the difficulty children with hearing impairment experience in developing language even with intensive language instruction and adequate amplification/ prosthesis. However, it is important that newborn hearing screenings and cochlear implants were not available to children during this time.

In the 1988, Anne Geers and Brenda Schick studied the "Acquisition of spoken and signed English by hearing-impaired children of hearing-impaired or hearing parents" (Geers & Schick, 1988). Geers and Schick tested 100 subjects. 50 subjects had parents with hearing impairment while 50 came from families with hearing parents. The study measured the participants' language level using the Grammatical Analysis of Elicited Language- Simple Sentence level. The participants were between the ages of five years and eight years eleven months. The study tested grammatical structures found on the GAEL-P forms and calculated the percentage correct for each grammatical structure for the total of participants. The data collected from subjects with hearing parents and parents with hearing impairment were kept separate for comparisons. The GAEL-P tested the following grammatical categories: nouns, verbs, wh-questions, conjunctions/ negatives, pronouns, noun modifiers, prepositions, copula, articles, and verbs inflections. The results gathered from the administration of the GAEL-P to the subjects was that "[t]he relative order of difficulty of the 11 categories was very similar in the [children with] HIP [hearing-impaired parents] and HP [hearing parents] groups, ranging from the easiest categories (nouns and verbs) to the most difficult categories (prepositions, copula verbs, articles, and verb inflections" (Geers & Schick, 1988, p. 141). This finding

indicated that even though hearing status of the parents of children with hearing impairment had an effect on language development, the subjects with hearing impairment made similar errors in language.

In 1991, pursuing the significance of assistive technology, Geers and Moog followed the progress of pre-lingually deafened children who had cochlear implants, tactile aids, acoustic hearing aids, or a combination of these (Geers & Moog, 1991). They specifically examined the children's spoken language development in addition to speech perception, speech production, and reading. After a year of amplification, implantation, and training, the study found "improvement in all areas developed regardless of devices used" (Geers & Moog, 1991, p. 124). There was a significant benefit of cochlear implant use with regards to speech perception but the "implant advantage observed in speech perception is not yet apparent in spoken language acquisition at one year post implant" (Geers & Moog, 1991, p. 122). It is significant to point out that the participants with implants in this study were between the ages of two years and 11 years. This helps underscore Geers and Moog's statement that "it is too early to expect significant differences in spoken language after less than 1 year of improved hearing" (Geers & Moog, 1991, p. 125). The researchers believed that over time the cochlear implant would aid the child with hearing impairment make significant gains in language acquisition and development. In a later study, the same authors spoke of this belief when they wrote, "it was hypothesized that an auditory-oral education combined with successful use of a cochlear implant might improve performance of deaf children to an even greater extent…[and that they]…might reach normal or near normal

achievement in speech production, language, and reading" (Geers & Moog, 1999, p. 1128).

Moog and Geers later set out to examine the performance of children with hearing impairment on speech and language test batteries. All tests were normed on children with normal hearing. The batteries provided a means to compare the scores of the students with hearing impairment to those of typical hearing peers. Prior to explaining the methods and findings, the authors explain the "impact of cochlear implants" on speech and language development. They state "cochlear implants are making it easier" (Moog & Geers, 1999, p. 1128). The language test battery included the Peabody Picture Vocabulary Test, 3rd edition (PPVT)[3], One Word Picture Expressive Picture Vocabulary Test (EOWPVT)[4], Test of Language Development Primary 3rd ed,[5] and the Clinical Evaluation of Language Fundamentals 3rd ed. (CELF)[6]. After administering the language test battery to children with cochlear implants, Geers and Moog observed that, "almost half of the children demonstrated language skills in the average range when compared to normally hearing children" (1999). Though the authors imply that these findings indicate that cochlear implants helped hasten the hearing-impaired child in language development, it does not specify in which areas of language these hearing-impaired children had difficulty, nor does it state what language difficulties those children not functioning within the average range were exhibiting.

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[3] Dunn, L.M. & Dunn, L.M. (1997). *Peabody Picture Vocabulary Test*, ed 3. Circle Pines, MN: American Guidance.

[4] Gardner, M.F.(1983*). The One-Word Expressive Vocabulary Test*, ed 3. Novato, CA: Academic Therapy Publications.

[5] Newcomer, P.L. & Hammill, D.D. (1997) *The Test of Language Development*, ed 3. Austin, TX: Pro-Ed

[6] Semel, E., Wiig, E.H., & Secord, W.A., (1995) *The Clinical Evaluation of Language Fundamentals*, ed 3. San Antonio, TX: The Psychological Corporation, Harcourt, Brace & Company.

In further research, Moog and Geers again tested children with cochlear implants (Moog & Geers, 2002). They reported the results of several test batteries administered to graduates from The Moog Center for Deaf Education in attempt to document the students' progress in speech, language, achievement testing, etc. Their purpose was similar to that of their 1999 study (Moog & Geers, 1999) and shows that within the group of subjects with hearing impairment, some could perform within the normal range in language tests. This study, like the study conducted in 1999, administered the PPVT, the EOWPVT, and the CELF-3. In this study, a 65% average of the quotient scores of these measures placed the graduates within the normal range (Moog & Geers, 2002). Again, the study did not identify areas in which individual students had language difficulties nor mentioned overarching trends in language difficulties.

Hana Tur-Kaspa and Esther Dromi investigated those aspects of language that children with hearing impairment who speak Hebrew omit from their language and/or use incorrectly. Because the Hebrew language is "typologically different from both English and Italian" (Tur-Kaspa & Dromi, 2001, p. 81), the findings of the study will not be discussed. However, the authors of the study give a detailed review of what aspects of language have proved difficult for children with hearing impairment who speak English because "most of the literature on the linguistic structures that pose special difficulty for orally trained children with hearing impairment derives from studies on English-speaking children" (Tur-Kaspa & Dromi, 2001, p. 80). The researchers mention several language structures, which are delayed. "[B]y and large…this population exhibits a significant delay in acquiring the morpho-syntactic rules of the English language" (Tur-Kaspa & Dromi, 2001, p. 80). Similarly, the authors note that grammatical errors also are a result

of “process[ing] syntactic rules differently than do children with normal hearing” (Tur-Kaspa & Dromi, 2001, p. 80).

One of the processing differences proving most problematic is that of syntactic movement. Syntactic movement, as explained by Friedmann and Szterman is the “phenomenon of dislocating an element from its original position to another position in the sentence” (Friedmann & Szterman, 2006, p. 59). Difficulties in word order in the language of children with hearing impairment have been documented for decades (Friedmann & Szterman 2006; Tur-Kaspa & Dromi, 2001). Three of the most commonly misused or unused syntactic structures are passives, WH-questions, and object relative sentences. All of these structures, to be generated correctly, require movement of the elements from one position to another (Friedmann & Szterman, 2006). A review of the literature also indicates that individuals with hearing impairment (not just children) make grammatical errors in structures that are linguistically complex. Structures such as “passives, relativization, and negative questions” may prove more difficult because they “require the analysis of hierarchical syntactic structure” (Tur-Kaspa & Dromi, 2001, p. 80). It is important to note that although these aspects of language have been shown to be difficult for individuals with hearing impairment to produce in oral language, the methodology of these studies and participant information was not made available. Also, because the body of literature spans from the 1960’s to the 1990’s, data including cochlear implants is limited. These factors however, do not negate the trend as individual differences are always a factor and not all individuals with hearing impairment use cochlear implants.

Mario A. Svirsky published results of a study examining pediatric cochlear implant users and their language development (Svirsky et. al, 2002). The researchers investigated whether these children developed language in the same order (though somewhat delayed) as normally hearing children do or if the language of cochlear implant users followed a different sequence of acquisition. If a different sequence of language development occurred, the researchers set out to test if "perceptual prominence" or the acoustic aspects of the speech signal factored in language acquisition (Svirsky et. al., 2002). Svirsky tested two hypotheses: 1. hearing-impaired cochlear implant users develop language in the same sequence as normally hearing children and 2. hearing-impaired cochlear implant users develop language in a sequence which relies on acoustic markers. The researchers studied three grammatical morphological aspects of the English language: noun plurals, uncontractible copula (to be), and regular past tense. The results of the study indicate that the tested pediatric cochlear implant users exhibited a different order of development of the morphological markers than did their peers with normal hearing. The cochlear implant users developed a facility with the uncontractible copula first, then the use of plurals, followed by the past tense. However, the results were reported for groups (normally hearing versus cochlear implant users) instead of individual performance. The study indicates that a difference in the order of language development may exist for cochlear implant users, but this indication requires further study. The implication is "if the perceptual prominence hypothesis receives further support in future studies, clinicians who work in language rehabilitation of cochlear implant users may choose to target those aspects of grammar that are less acoustically prominent to these children" (Sviersky et. al., 2002, p. 112).

Study:

The purpose of the study conducted by the author was to ascertain how teachers of the deaf throughout the country use or do not use the TAGS forms.

Participants:

The participants of the study were selected through a number of means as described in the methods section. Although 100 participants were solicited, 31 teachers of the deaf responded. These teachers' years of experience ranged from 6 months to 41 years. Thirty- two surveys were returned; however, one survey was returned blank, which led to its being excluded from the findings. The participants' identities will be kept anonymous. The responses represented opinions of teachers of the deaf from fifteen states from across the United States.

Method

The author first developed a survey whose focus was to illumine how teachers of the deaf are currently using or not using the TAGS forms in their professions. This survey was submitted to the student advisor Julia West as well as the Pre-Kindergarten director at the Central Institute for the Deaf (CID), Lynda Berkowitz for guidance. Then the author collaborated with the CID Publications Department, specifically Dianne Gushleff, to determine to whom to distribute the surveys. First, a copy of various schools for the deaf was presented to Dianne Gushleff, and she indicated from memory which schools had ordered TAGS forms from CID in the past. Then, Ms. Gushleff provided the

author with edited billing addresses from schools that had purchased the TAGS forms recently. A total of 83 surveys were mailed out using these methods. The remaining 17 surveys were placed in mailboxes of the teachers of the deaf at the Central Institute for the Deaf by hand. A total of 100 surveys were distributed initially. Each survey included a stamped envelope with the author's home address on it to encourage teacher response. This process was undergone so as to promote diverse responses, control for geographic trends in educating children/students with hearing impairments, as well as to control over representing any one program's use of the tool.

Each survey consisted of 14 questions. Five of these 14 questions consisted of two parts for a total of 19 opportunities for the teacher to respond. Nine of these questions were forced choice, 8 were open ended essay questions, and two required Likert scaled responses (See Appendix B). The cover letter included within the survey envelope told the purpose of the study, the time commitment involved for completion, and the assurance that responses would be anonymous. Also, it encouraged professionals to reproduce and distribute the survey to whoever could best answer its questions. The final collection date was stated as December 10, 2006 (See Appendix A).

Due to surveys being returned past the final collection date, a low response rate, and several teachers of the deaf stating they had been unable to complete the survey, the author extended the collection date to February 14, 2007. Also, the survey was redistributed to 17 teachers of the deaf at CID. This survey was hand delivered with a new cover letter, which told teachers to not fill the survey if they had previously (See Appendix C). To encourage participation, a manila envelope in the teachers' lounge served as the collection method. Again, the collection date was changed to February 14,

2007. During this extended period several surveys were collected from across the country. Collected surveys were analyzed using Survey Monkey, a web-based survey software.

Findings

As previously mentioned, 100 surveys with an additional 17 surveys were distributed across the country receiving 31 total respondents. This paper will treat all findings as if 100 total surveys were sent out, assuming that duplicate responses were controlled. With that in mind, the response rate of 31% is typical (Shaughnessy, Zechmeister, & Zechmeister, 2006). The following will related the various responses to the 14 questions on the survey.

The first set of questions was designed to gather information about the teachers and their students.

Question 1: How long have you been teaching hearing-impaired children?

The first question was an open ended question, which received 23 responses, which is a response rate of 74.2%. The range of years the teachers of the deaf who responded was 6 months to 41 years of experience teaching.

Question 2: Please list the ages of the students you teach presently.

The second question was an open-ended question which received a 74.2% response rate. The written responses ranged from “0 years” or “Birth” to 21 years of age. The most frequently occurring age mentioned by surveyed teachers was three years of age followed by ages four and five. These numbers are unlikely to be precise since many of the teacher responses were written in range form instead of specific ages.

The second group of questions were designed to ascertain if and how language was taught by the teacher.

Question 3: How often do you teach each of the following? [Please circle]

Vocabulary:	daily	weekly	other____	do not teach
Syntax/ Word order:	daily	weekly	other____	do not teach
Language structure:	daily	weekly	other____	do not teach
Social skills/ pragmatics:	daily	weekly	other____	do not teach

Question three was a closed set question. 22 of the 31 respondents completed at least part of the question. The question investigates vocabulary, syntax/ word order, language structures, and social skills/ pragmatics. The majority of respondents taught these daily.

86% of vocabulary was taught daily, 0% was taught weekly, 5% marked “other” for the frequency of teaching vocabulary, while 9% of teachers did not teach vocabulary.

For syntax/ word order, 64% of teachers taught daily, while 14% did not teach it. Another 14% checked other while 9% taught word order weekly.

Regarding language structure instruction, 68% of teachers indicate they teach them daily, 9% of teachers stated they taught word order weekly, and 14% stated "other," whereas another 9% did not teach it.

The information gathered about social skills/ pragmatic aspects of language taught these skills daily 64% of the time. Another 18% stated pragmatics was taught weekly. 5% selected "other" while the remaining 14% did not teach these skills at all.

The next questions served to gain information about the TAGS use or lack of use by teachers of the deaf.

Question 4: Do you currently or have you ever used the TAGS? [Please check]

___ yes [currently] ___yes [previously] ___no

Question four was a closed set question. It was the only question on the survey that received a 100% response rate. It is important to mention some respondents selected they had used the TAGS previously as well as currently. This is reflected in percentages that resulted. 45.2% of teachers indicate they currently use the TAGS while 35.5% have used the TAGS previously. Also, 29% of respondents indicated they did not or had not used the TAGS before.

Question 5: Which TAGS forms do you currently use? [Please check all that apply]

Pre-Sentence TAGS___ Simple Sentence TAGS___ Complex Sentence TAGS___

Question five is a closed set question in which 14 of the 31 respondents answered. This was a response rate of 45.2%. Of those teachers who answered 64.3% use the Pre-Sentence TAGS; 50% use Simple Sentence TAGS; 35.7% use Complex Sentences.

Question 6: Which TAGS forms have you used in the past? [Please check all that apply]

Pre-Sentence TAGS___ Simple Sentence TAGS___ Complex Sentence TAGS___

Question six is another closed set question written to gather information about those teachers who no longer use the TAGS. It received a response rate of 67.7%. Of teachers who responded, 95.2% stated they had used Simple Sentence forms previously. 81% had used the Pre-Sentence forms and 76.2% had used the Complex Sentence forms. Again, teachers were permitted to check more than one TAGS forms. This is appropriate since many students work on two forms concurrently.

Question 7: How long have you used the TAGS forms?

____years ___ months

The response rate of this open set question was 93.5%. Teachers wrote in several different responses, several of which reiterated the teacher/ program did not use the TAGS forms. Nine of the 29 respondents do not use the TAGS. Of those respondents that do use the TAGS, the range of years teachers had used the TAGS ranged from six

months to 22 years 3 months. The mean years of experience was seven years two months.

Question 8: The TAGS is described as a teaching tool. How would you describe your use of this tool? [Please check]

Frequency: daily__ weekly___ monthly___ never__ other___

Reasons: document progress___ set goals/objectives___ lesson planning___

other_____

Question eight was a closed set question with multiple parts. The first portion of the question inquired after the frequency of use of the TAGS. This portion received a 54.8% response rate. Of teachers who responded, 35.5% use them monthly. 23.5% use the forms daily. "Other" was provided as an option and 11.8% selected this. 5.9% of respondents never used the TAGS.

The second portion required respondents to describe their use of the TAGS. This portion of question eight got a response rate of 67.7%. Of the options listed, document progress, set goals/ objectives, lesson planning, and other, 81% of respondents use the TAGS to set goals and objectives followed by 71.4% who use them to document progress. Lesson planning was cited by 52.4% of teachers responding and 23.8% selected "other" as their response.

The survey encouraged teachers, after selecting "other" to explain their response. Responses included, "aids language correction." Another wrote, "research hierarchy and

it helps in long range planning." Still another responded with " demonstrate[s] in print how child is progressing with language so that parents can see it in a chart-like format that clearly demonstrates progress or lack thereof."

Question 9: What term best describes your facility/comfort level using the TAGS?

[Please check]

Poor___ Fair___ Good___ Excellent___ Other_____

Question nine was a closed set Likert scaled question. It was purposefully subjective. This question received a 67.7% response rate. The percentages reflect the fact that some respondents selected more than one response to describe their level of comfort. 47.6% of respondents stated they had a good comfort level, while 42.9% stated their comfort level was excellent. 14.3% related their comfort level was fair and 4.8% selected other.

Question 10: Do you rate/teach students on all language structures on the TAGS?

Yes___ No___

If no, please list language structures you do not teach rate?

Pre-Sentence _____

Simple Sentence_____

Complex Sentence _____

Question ten was a two part question which included a closed set question and a follow up open ended question which gathered a 61.3% response rate. Of all respondents, 52.6% stated they did not rate all structures on the TAGS.

The second part of the question received seven responses giving it a 22.6% response rate. Four of the seven responses listed actual language forms that teachers did not use. The remainder explained why they did not use the forms of a given form.

Pre-Sentence:	Pre-Sentence:	Complex Sentence:
Three word combination	None listed	Direct Address
Wh-questions		Apposition
Pronouns		Verbs level C-5, and C-6
Tense markers		Verbs C-6
Who		Although
What		Whenever
Negative adjective		
Negative noun		
Attempted present progressive		

Question 11: Please explain why you do not teach/ rate these structures.

Question eleven was an open- ended question. It received a 32.3% response rate. Responses varied and included these rationales, " [I] don't use forms. [I] use standardized testing normed on hearing children." Another wrote, "because it is not necessary—students can pick up these language structures without formal instruction of them." Many responses indicated the consideration of student' language level as a reason for not moving on to more complex structures. On respondent explained his/ her rationale for not teaching specific language structures as, "[i]t depends on the group of students I have. Not all my students are ready to be taught everything on the pre-sentence TAGS."

Question 12 Have you ever modified or added to the TAGS? [Please check]

If yes, please check all that apply.

___Added language structures

___Used other language curricula in addition to the TAGS [If so, please list language curricula] _____

____ Other _____

Question 12 is a two-part question. The first is a closed set question, which received a 35.7% response rate. The second part, a follow up question asking teachers to list other forms they used gathered the same response percentage. 91.7% of respondents use or used another "language curricula" or language assessment in addition to the TAGS. 25% have added language structures, and finally 8.3% selected "other." Again, some teachers selected more than one response.

Of those teachers who selected that they have or had used another language assessment, ten of the eleven stated they had used the CASLLS rating forms. Two of the 11 use the TASL, while the Clarke School Curriculum, and Creative Curriculum were each mentioned once. One respondent wrote the language structures he/she had added. These language structures included do questions, contractions, now, later, that (used as a conjunction), have you been, have gone, has gone, and past perfect verbs as structures that he/she had added. One respondent selected "other" for this question and explained

that “usually once every week or two, I do a pragmatics lesson focusing on behavior and the appropriate pragmatic language.”

Question 13: How would you rate your overall satisfaction* with the TAGS?

*satisfaction meaning the TAGS’ ability to meet your language instruction needs for teaching individual students.

[Please circle]

very satisfied satisfied neutral unsatisfied

Other [Please explain] _____

Question 13 is a two-part question; it consists of first a closed set Likert rating question followed by an open ended space to explain the teacher’s choice. The closed set portion gained a response rate of 67.7% and the open set portion gained a 9.7% response rate. 48% of those who responded explained they were satisfied with the TAGS; 38% were neutral, and 14% were very satisfied. 0% of the teachers selected unsatisfied or other.

Three respondents wrote in the open set portion of question thirteen. Two of the three that responded indicated that they “don’t use” the TAGS or that “[i]t no longer meets our needs.” The remaining response states “It is only a syntax tool—it doesn’t represent all language—and it is certainly missing some structures—but it is a great GUIDE for syntax instruction.”

Question 14: If your satisfaction could be improved, which of the following do you feel would improve the TAGS? [Please check all that apply and explain]

___Different format [Please explain] _____

___Added language structures [Please explain] _____

___Deleted language structures [Please explain] _____

___Added language usage [Please explain] _____

___Other [Please explain] _____

Question 14 is also a two part question with the first portion being a closed set question followed by an open set response. Both portions of the question got a 38.7% response rate. The question investigated possible improvements to be made on the TAGS. Of the items listed, "other" had the highest percentage at 75%. Added language usage had 50% of selection rate followed by added language structures at 33.3%. 8.3% of respondents thought the format being changed could improve the TAGS and none of the respondents selected that they would like language structures to be deleted. Some respondents selected more than one option.

In the second portion of question 14, many of the responses were unique to that teacher; however, some similarities existed. Pragmatics was listed in some form or fashion six times in response to the question. The second more frequent item was the addition of developmental domains on the forms. This suggestion was made two times. Ages of children with normal hearing's language development displayed on the TAGS forms were also mentioned two times. While the need for slang to be included was mentioned once, another respondent suggested an improved manual with specific activities for each

language structure. Including discourse goals and cultural language (language acceptable in one culture versus another) were also suggestions listed by the teachers. The language structures that were mentioned included the following: instead of, except, might not, negative why questions, and the past tense. These additions were all submitted by the same respondent. The diversity of comments and multiple responses per respondent increased the difficulty in finding statistical significance, if any existed.

Discussion:

The purpose of this study was to gather, analyze, and apply data pertaining to the TAGS and how teachers of the deaf are using it as a teaching tool. This goal was formed in the interest of discovering if modifications should be made to it. After gathering and analyzing the data, the researcher discovered much valuable information about the teachers of the deaf who responded as well as about their use of and opinions about the TAGS.

Satisfaction:

When polled, of those teachers who responded, 48% expressed that they were satisfied with the TAGS. (It will be remembered that "satisfaction" was defined to control for subjective interpretation of the term to mean "the TAGS ability to meet your [the teacher's] instruction needs for teaching individual students.") 14% of teachers were very satisfied while the second largest group, 38% states their satisfaction level was neutral. It is significant to note that no teacher selected they were dissatisfied with the TAGS. Reasons for this might include that if the teacher was dissatisfied with the language assessment, they found a tool to better meet his/her needs. Of the respondent population, 29% did not use the TAGS forms. When asked to explain why, many

teachers did not explain. One of the few respondents did state that "it no longer meets our needs," while another indicated "we are looking for a tool normed on normally hearing children."

Other language assessments:

The survey also indicated the trend that teachers of the deaf (who do/do not use TAGS) are using multiple language tools in their classrooms. Predominantly, the CASLLS was mentioned in those who responded to question 12. Of the 12 responses, the CASLLS was mentioned by name 83.3% of the time. Taken in context of all those who sent in responses, yet did not answer the question, this percentage would be 29% of the respondent population. Other tools which were mentioned included the TASL (16.6%), the Clarke School Curriculum (8.0%), and the Creative Curriculum (8.0%).

Language Structures:

Overall, few teachers listed specific amendments that, in their opinion, should be made to the TAGS. Specifically, the survey sought out specific language structures on the forms that teachers did not teach and those language structures teachers felt should be added. 52.6% of teachers who responded stated they did not teach all of the structures on the TAGS. When asked to explain by listing structures, four of the seven respondents provided information which listed structures. The structures are listed below in table form. They are organized by form.

Pre-Sentence:	Pre-Sentence:	Complex Sentence:
Three word combination	None listed	Direct Address
Wh-questions		Apposition
Pronouns		Verbs level C-5, and C-6
Tense markers		Verbs C-6
Who		Although
What		Whenever
Negative adjective		
Negative noun		
Attempted present progressive		

Predominantly, teachers commented on the Pre-Sentence forms. However, the significance is not necessarily significant due to the small response rate and the indication that most teachers who responded are teaching students of younger ages and who have more linguistically simple language.

Language structures to add

Fewer respondents suggested language structures that could be added to the TAGS forms. One respondent did state that, "teachers over the years have come up with many structures that are missing and could be added," to the TAGS, but he/she did not mention any of these specifically. One respondent did list the following language structures as possible additions: do questions, contractions, now, later, that (used as a conjunction, have you been, have/has gone, and present progressive verbs.

Weaknesses of study

One weakness of the survey was the small sample size. Sending out 100 surveys over the country proved to not be enough to gather the desired information since so many respondents made helpful, yet entirely unique responses, noting trends in responses was difficult. Also, some of the survey questions, judging from the disparate answers

(questions 2, 4, 7, 8, 10, 11, 12, 13, and 14) could be interpreted in different ways. This fact helps explain why there were at times no similar responses in the answers received.

Implications

Due to the small sample size and the smaller response rate on particular questions, the suggestions of teachers, though beneficial, are not enough to make any changes to the TAGS forms at this time. The most frequently occurring teacher suggestion for improvement was the addition of pragmatic language usage to the forms themselves. Other trends in teacher suggestions can be seen in the findings section of the paper. Overall, no steps to modify the TAGS based on these findings should be made at this time. Instead, this study should be regarded as a preliminary work for assessing how teachers of the deaf use the TAGS. However, it is recommended that this research be extended in a more focused study. A more specific survey sent out to a larger population is warranted. Also, identifying specific language structures already mentioned by teachers in this study as needing to be deleted or added should be listed in the new survey in order to prompt similar responses. Including the TAGS forms within the survey might also aid the surveyed teachers to mark forms they do not use. This could increase response rate as well as increase the likelihood for gathering similar responses. This will help give concrete examples to focus teachers' thoughts on what is being asked of them as they are reflecting on what structures they do/ do not rate or teach. The survey should also ask questions about formatting of the forms as well as investigate if and how the teachers are using the TAGS.

Bibliography

Azar, B.(1981). Understanding and Using English Grammar. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Browen, C. (1998). The development of morphology and syntax. Retrieved March 20, 2007, from http://members.tripod.com/Caroline_Bowen/ BrownsStages.htm

Cole, M., Cole, S. R., & Lightfoot, C. (2005). The development of children (5th ed.) New York: Worth Publishers.

Easterbrooks, S.R. & Baker, S. (2002). *Language learning in children who are deaf and hard of hearing: Multiple pathways*. Boston: Allyn and Bacon.

Friedmann, N. F. & Szterman, R. (2006). Syntactic movement in orally trained children with hearing impairment. *The Journal of Deaf Studies and Deaf Education*, 11(1) 56-75. Retrieved February 3, 2007, from Oxford journals database.

Geers, A. E. & Moog J. S. (1978). Syntactic maturity of spontaneous speech and elicited imitations of hearing-impaired children. *Journal of Speech and Hearing Disorders*, 42, 380-391.

Geers, A. E., Moog, J. S. & Calvert, D. R. (1980). The independent educational evaluation. *The Volta Review*, 82, 280-287.

Geers, A. E. & Moog, J. S. (1991). Evaluating the benefits of cochlear implants in an Education setting. *The American Journal of Otology*, 12 (Supplement), 116-125.

Geers, A. E. & Schick, B. (1988) Acquisition of spoken and signed English by hearing impaired children of hearing impaired or hearing parents. *Journal of Speech and Hearing Disorders*, 53, 136-143.

Gleason, J. B. (2005). *The development of language* (6th ed.) Boston: Pearson Education.

Moog, J. S. (2002). Changing expectations for children with cochlear implants. *Annals of Otology, Rhinology, and Laryngology*, 111, 138-142.

Moog, J.S. & Geers A.E. (1975). *Scales of early communication skills for hearing-Impaired children.* St Louis, MO: Central Institute for the Deaf.

Moog, J.S. & Geers, A.E. (1979). *Grammatical analysis of elicited language simple sentence level.* St. Louis, MO: Central Institute for the Deaf.

Moog, J.S. & Geers, A.E. (1981) *Grammatical analysis of elicited language complex sentence level.* St Louis, MO: Central Institute for the Deaf.

Moog. J. S. & Geers, A. E. (1999). Speech and language acquisition in young children after cochlear implantation. *Otolaryngologic Clinics of North America*, 32(6), 1127-1141.

Moog, J.S. & Kozak, V.J. (1983). *Teacher assessment of grammatical structures*. St Louis, MO: Central Institute for the Deaf.

Moog, J.S. & Biedenstein, J. (1998). *Teacher assessment of spoken language.* St. Louis, MO, The Moog Center for Deaf Education.

Moores, D. F. (2001). Educating the deaf psychology, principles, and practices (5th ed.) Boston: Houghton Mifflin Company.

Piaget, J. (1959). *The language and though of the child* (Rev. ed.) (M. Gabain, Trans.) L London: Routledge & Kegan Paul LTD.

Shaughnessy, J. J., Zechmeister, E.B. Zechmeister, J. S. (2006) *Research Methods in Psychology* (7th edition.) (2006) Boston: McGraw-Hill International Edition.

Survey Monkey, retrieved March 8, 2007, http://www.surveymonkey.com/

Svirsky, M. A., Stallkings, L. M., Ying, E. Y., Lento, C. L., and Leonard, L. B. (2002). Grammatical morphologic development in pediatric cochlear implant users may be affected by the perceptual prominence of the relevant markers. *Annals of Otology, Rhinology, and Laryngology*, 111, 109-112.

Tur-Kaspa, H. & Dromi, E. (2001). Grammatical deviations in the spoken and written language of Hebrew-speaking children with hearing impairments. *Language, Speech, and Hearing Services in Schools*, 32, 79-89.

Wilkes, E. M. (2001) *Cottage acquisition scales for listening, language, and speech* (2nd Edition). San Antonio, TX: Sunshine Cottage School for Deaf Children.

Wilkins, M. Ertmer, D. J. (2002). Introducing young children who are deaf or hard of hearing to spoken language: Child's voice, an oral school. *Language, Speech and Hearing Services in Schools*, 33, 196-2004.

Appendix A

November 4, 2006

To Whom It May Concern:

I am a graduate student in Washington University's Deaf Education Program. Currently I am conducting a research study surveying teachers of the deaf across the nation. My specific interest is concerning the Teacher Assessment of Grammatical Structures (TAGS) language curricula and how teachers of the deaf use it as a tool. Since I am specifically interested in those teachers who used the TAGS, I have cooperated with a distributor of the TAGS and have been informed of some institutions, which have previously ordered TAGS forms. No individuals' names were mentioned in this process. I would appreciate it if you would direct this survey to any teacher whom you feel would be in a position to give constructive feedback about the TAGS.

Participation in this study is completely voluntary, and your responses are anonymous, so there are no risks involved. The survey enclosed takes approximately 30 minutes to complete. It's designed to document teachers' use of the TAGS in the classroom, and their opinions about it (i.e. if the TAGS should be edited, expanded, or kept the same). Because the TAGS is a tool, teachers' experiential knowledge and opinions are of utmost importance to achieve and maintain its effectiveness; therefore, data received from teachers will provide important implications for the TAGS. The benefit that may come from the study is a TAGS form tailored to meet the needs of current teachers of the hearing-impaired.

A self-addressed stamped envelope is enclosed along with the survey to help simplify the return process. The final collection date for the survey is December 10, 2006. Understandably, your schedule is busy, so I hope this span of time allows for an unhurried response, as you and your colleagues' responses are the foundation of the study. Please understand your personal information will be kept anonymous.
I appreciate your cooperation and input. Please feel free to contact me personally at my number below with any questions you might have. If you wish to talk to someone else, or have questions or concerns about your rights as a research subject, you may call Dr. Philip Ludbrook, Chairman of the University's Human Research Protection Office, at (314) 633-7400 or (800) 438-0445

Sincerely,

Andrea Martin
*** Summer Point

Edwardsville, IL 62025
Home phone: 618-***-****

Appendix B

Teacher Information

1. How long have you been teaching hearing impaired children?
___ years ___months

2. Please list the ages of the students you teach presently.
_____

3. How often do you teach each of the following? [Please circle]

Vocabulary: daily weekly other____ do not teach

Syntax/ Word order: daily weekly other____ do not teach

Language structure: daily weekly other____ do not teach

Social skills/ pragmatics: daily weekly other____ do not teach

4. Do you currently or have you ever used the TAGS? [Please check]

___ yes [currently] ___yes [previously] ___no

If you checked yes, please continue.

Teacher Assessment Grammatical Structures (TAGS)

5. Which TAGS forms do you currently use? [Please check all that apply]
Pre-Sentence TAGS___ Simple Sentence TAGS___ Complex Sentence TAGS___

6. Which TAGS forms have you used in the past? [Please check all that apply]
Pre-Sentence TAGS___ Simple Sentence TAGS___ Complex Sentence TAGS___

7. How long have you used the TAGS forms?
____years ___ months

8. The TAGS is described as a teaching tool. How would you describe your use of this tool? [Please check]
Frequency: daily__ weekly___ monthly___ never__ other___
Reasons: document progress___ set goals/objectives___ lesson planning___
other_____

9. What term best describes your facility/comfort level using the TAGS? [Please check]
Poor___ Fair___ Good___ Excellent___ Other_____

Content of Teacher Assessment Grammatical Structures

10. Do you rate/teach students on all language structures on the TAGS?
Yes___ No___
If no, please list language structures you do not teach rate?
Pre-Sentence _____
Simple Sentence_____
Complex Sentence _____
11. Please explain why you do not teach/ rate these structures.
_____
_____
_____

12. Have you ever modified or added to the TAGS? [Please check]
If yes, please check all that apply.
___Added language structures
___Used other language curricula in addition to the TAGS [If so, please list language curricula] _____
___ Other _____

13. How would you rate your overall satisfaction* with the TAGS?
*satisfaction meaning the TAGS' ability to meet your language instruction needs for teaching individual students.
[Please circle]

very satisfied satisfied neutral unsatisfied

Other [Please explain] _____

14. If your satisfaction could be improved, which of the following do you feel would improve the TAGS? [Please check all that apply and explain]

___Different format [Please explain] _____

_____

___Added language structures [Please explain] _____

_____

___Deleted language structures [Please explain] _____

_____

___Added language usage [Please explain] _____

_____

___Other [Please explain] _____

_____

Appendix C

January 16, 2007

Dear Teacher:

I am a graduate student in Washington University's Deaf Education Program. I am conducting a research study surveying teachers of the deaf across the nation. My specific interest is concerning the Teacher Assessment of Grammatical Structures (TAGS) and how teachers of the deaf use it as a tool. Because I received few responses from teachers at CID, I am reissuing the survey to provide another opportunity to receive your input about the TAGS. If you have already sent in a response, please refrain from submitting another.

Participation in this study is completely voluntary, and your responses are anonymous, so there are no risks involved. The survey enclosed takes approximately 30 minutes to complete. It is designed to examine teachers' use of the TAGS in the classroom. One benefit that may come from the study is a TAGS form tailored to meet the needs of current teachers of the hearing-impaired.

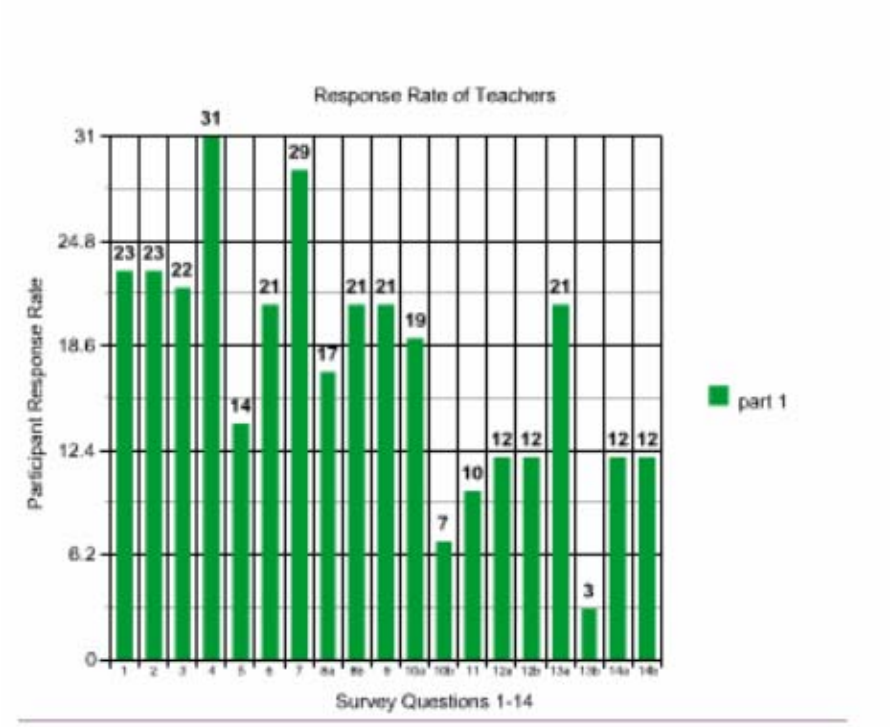
To simplify the return process, a file folder will be placed in Julia West's mailbox located in the CID teachers' lounge as a method of collection. Please return the survey by February 14, 2007. I know your schedule is full, so I hope this span of time allows for an unhurried response, as your responses are the foundation of the study. Please understand your personal information will be kept anonymous.

I appreciate your cooperation and input. Please feel free to contact me personally at my number below with any questions you might have. If you wish to talk to someone else, or have questions or concerns about your rights as a research subject, you may call Dr. Philip Ludbrook, Chairman of the University's Human Research Protection Office, at (314) 633-7400 or (800) 438-0445

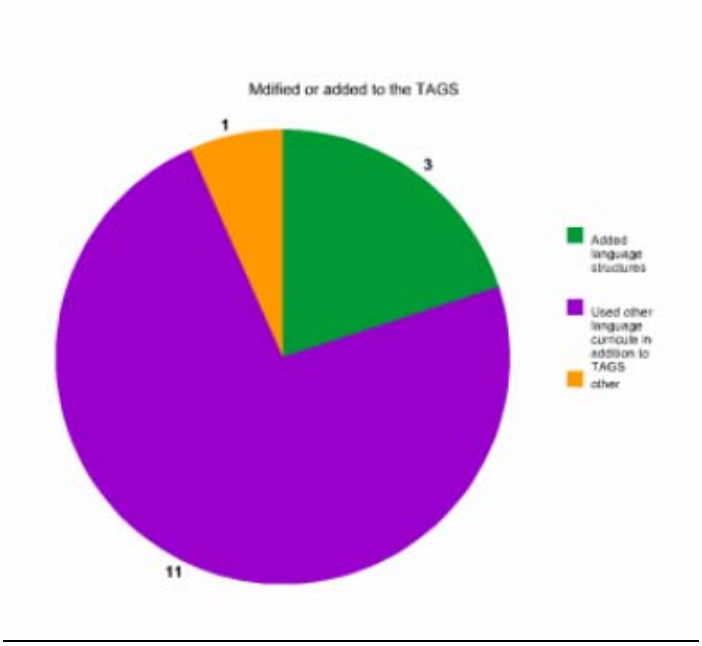
Sincerely,

Andrea Martin
*** Summer Pointe
Edwardsville, IL 62025
Home phone: 618-***-****

Appendix D


Response Rate of Teachers
Participant Response Rate
31
24.8
18.6
12.4
6.2
0
23
23
22
31
14
21
29
17
21
21
19
7
10
12
12
21
3
12
12
part 1
Survey Questions 1-14

Appendix E


Mdified or added to the TAGS
1
3
11
Added language structures
Used other language curricula in addition to TAGS
other