

Teaching American Sign Language to Hearing Adult Learners

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American Sign Language (ASL) has become a very popular language in high schools, colleges, and universities throughout the U.S., due, in part, to the growing number of schools that allow students to take the language in order to fulfill a foreign or general language requirement. Within the past couple decades, the number of students enrolled in ASL classes has increased dramatically, and there are likely more instructors of ASL at the present time than ever before. ASL and spoken language instruction are similar in some aspects; however, there are also differences between the two (e.g., modality differences involving visual rather than auditory perception and processing, no commonly used writing system in ASL, and the socio-cultural history of deaf-hearing relations). In spite of these differences, minimal research has been done on ASL learning and classroom pedagogy—especially in recent years. This article reports on studies that have been performed recently and it also suggests various themes for future research. In particular, three main areas of research are proposed: the possible role of the socio-political history of the Deaf community in which ASL teaching is situated, linguistic differences between signed and spoken languages, and the use of video and computer-based technologies.

TEACHING AMERICAN SIGN LANGUAGE TO HEARING ADULT LEARNERS

American Sign Language (ASL), the language of Deaf¹ communities throughout the United States and parts of Canada, is regularly taught in high schools, colleges, and universities throughout the United States, though this was not generally the case a few decades ago.² A Modern Language Association report of Fall 2009 foreign language enrollments in higher education claimed that ASL was the fourth most commonly studied language at colleges and universities in the United States and that there were nearly 92,000 students enrolled in ASL courses during the semester for which the numbers were reported (Furman, Goldberg, & Lusin, 2010). This represented a 30 percent increase in enrollment in comparison with figures reported for 2002.³ It was also reported in the 2009 data that the vast majority of ASL courses are introductory in focus rather than advanced, with a ratio of 11 to 1, respectively.⁴ The increase in ASL enrollments may be due in part to a trend in universities to accept ASL courses in fulfillment

of a student's foreign language requirement, with the number of those schools totaling more than 160, as documented by one website (Wilcox, 2010). Rosen (2008) also reported that in 2005, ASL was being taught at 701 public high schools throughout the country and being accepted as a foreign language, a figure which represents more than a 4,000 percent increase since 1987, when only 17 secondary schools reported the offering of ASL in their language programs. Clearly, ASL is a popular language for L2 learners.⁵

Notwithstanding its popularity as a language, it seems to be the case that, over the years, there has not been substantial dialogue between ASL teaching professionals and educators and researchers from other foreign language units. There are few journal articles that can be found concerning ASL pedagogy, models and theories of second language acquisition (SLA) and language teaching have primarily focused on the teaching of spoken and written languages, and SLA-focused conferences have mostly not included representation of the teaching of ASL or other sign languages.⁶ This may be due, in part, to common job requirements of ASL instructors and administrators; there may not be enough time for these pedagogy experts to engage in research because teaching is a primary focus—even for administrators—and tenure-track jobs with research components are still the minority of the positions in institutions of higher education (Cooper, Reisman, & Watson, 2008). In spite of the lack of ASL representation in SLA writings, ASL curricula have, to varying extents, incorporated aspects of various theories of spoken language instruction.

It appears that the teaching of ASL has been informed, in large part, by the linguistic intuitions and cultural beliefs of its instructors and curricula developers—most of whom are members of the Deaf community. Some instructors are deaf, some are hearing but early signers because their parents and/or siblings were deaf, and others are late learners of the language who were not exposed in childhood.

The teaching strategies that have been employed have allowed for regular instruction of ASL to many adult hearing students, though the efficacy of those strategies has generally not been examined empirically. This situation encourages us to ask the following questions: What can the field of SLA learn from the instructional strategies of a community that places a primary focus on visual communication? What can the teaching of ASL learn from theories, models, and practices that have been used for spoken and written language instruction over the years? And, finally, what are the best ways to teach ASL so that adult hearing learners can make the most gains? These questions may serve as a guide for future evaluations of ASL pedagogies.

THE SOCIO-CULTURAL ENVIRONMENT OF ASL INSTRUCTION

One cannot consider linguistic aspects of ASL teaching without taking into account the unique history of ASL instruction over the years. The teaching of ASL is superposed on the socio-cultural history of the Deaf community—a history that has been influenced greatly by interactions between Deaf and non-Deaf (i.e., hearing) people. Deaf people have endured much oppression by hearing people over the years (whether or not the purported oppression has been

deliberate or not), and the complex dynamics of the interactions between the two communities have involved issues of disability, social capital, and general power differentials (Ladd, 2003; Lane, 1999; Lane, Hoffmeister, & Bahan 1996; McDermid, 2009).⁷ In many cases, Deaf instructors feel that they are subject to discrimination that is not evident in the experiences of their hearing colleagues (McDermid, 2009). An example of societal oppression against Deaf people, or what Lane (1999) has referred to as *audism* (the “hearing way of dominating, restructuring, and exercising authority over the deaf community”, p. 43), can be evident in the fact that some hearing people want to learn ASL in order to help Deaf people, whether it be for professional, religious, or other reasons.⁸ Whereas this might provide an internal motivation for hearing adult learners of ASL, it also likely plays a role in the beliefs that some hearing students have about ASL and the Deaf community and in the ways in which hearing people interact with their instructors. The socio-cultural history of the Deaf community has likely impacted general trends of ASL instruction.⁹

In addition to the general teaching of language, instructors of ASL have also been responsible for teaching the culture of the Deaf community—providing the proper environment for enculturation of the hearing learner and appropriate socialization into the community (Rutherford, 1988). One such example of Deaf culture is a primary focus on visual information and an avoidance of relying on sound or speech for communication. This facet of Deaf culture has influenced the degree to which spoken English is allowed, if at all, within the classroom; this is discussed later in this article. Certainly, other foreign languages also include the teaching of culture, but perhaps not to the extent that ASL instructors incorporate cultural material beginning with introductory level-courses. Students are often encouraged to attend Deaf community gatherings (e.g., regularly-scheduled informal meetings at restaurants) and events (e.g., school for the Deaf homecoming weekends or special activities at Deaf social clubs), which allows cultural knowledge (e.g., unspoken rules about interacting with others in ASL) to be gained outside of the classroom, as well.

Efforts to preserve ASL for the future have likely played an important role in the general investment of Deaf people in the teaching of the language. Deaf people have wanted to preserve their language and culture in spite of threats from members of the medical community (e.g., researchers and doctors who support the use of cochlear implants) and others to eradicate deafness or outlaw the use of signed language in the education of deaf children (Lane, Hoffmeister, & Bahan, 1996). Whereas instruction of an endangered spoken language might share this characteristic with ASL (i.e., instructors would be committed to supporting the vitality of their endangered languages), there are likely noteworthy differences between the teaching of ASL and many, if not most, spoken languages that are commonly taught. As one example, the teaching of ASL by Deaf to hearing people allows the Deaf to increase the population of those with whom they can communicate using their everyday language. Meaningful interaction between Deaf and hearing people is often constrained by hearing people’s ability to use signed language fluently. ASL instructors have worked tirelessly to share their visual language with people who have previously been dependent on hearing for communication. Thus, the history of a linguistic and cultural minority has played a large part in the teaching of ASL. This fact cannot be

overlooked when considering the methods of ASL instruction that may be most effective.

NOTEWORTHY DIFFERENCES BETWEEN SIGNED AND SPOKEN LANGUAGES

In order to address various points regarding ASL pedagogy, it may be useful to also make a couple points about the language explicit—especially those which may influence how it is taught vis-à-vis the teaching of spoken languages. First, ASL does not have a widely used writing system, although English words, or glosses, are sometimes used to represent ASL signs. Second, ASL structure is heavily influenced by the ability to display meaningful streams of information simultaneously. Both manual (i.e., the hand[s]) and non-manual (e.g., mouth/lip movements for adjectival and adverbial modifications of signs) articulators participate in the lexical, morphological, and syntactic constructs of the language. Such simultaneity differs from the highly sequential structure that is representative of spoken language, and this may have an effect on how adult hearing learners are able to process visual input. Additionally, aspects of the vocabulary and grammar of ASL and other signed languages have often been described as iconic. In general terms, iconic forms are those in which the form of a lexical item (or other linguistic process) resembles, in some way, some aspect(s) of the referent. Examples of this are provided in a later section, though it is important to note that iconicity is much more prevalent in signed languages than it is in spoken languages (see Taub, 2001).

IMPLICATIONS OF NOT HAVING A COMMONLY USED WRITING SYSTEM

One of the most notable characteristics of ASL is that there exists no commonly accepted written form of the language.¹⁰ This fact has various implications for the teaching of ASL. For example, written homework would have to employ English words, or glosses, for representing ASL signs, and such glosses are not standardized for many lexical items. This makes it difficult to capture various aspects of the language such as grammatical inflections on particular signs that involve the use of the signing space and the use of non-manual signals. In addition, body movements (in the form of enactment to represent actions of depicted characters) and affective information (e.g., the emotions of characters) are aspects of ASL that are common in ASL discourse, yet there do not exist well-known and systematic ways for capturing such meaningful devices. Even so, according to one study, a method of glossing ASL sentences with English words is beneficial for pedagogical purposes (Buisson, 2007). The results of that study are reported at the end of this section.

There are various important contributions of a writing system to language learning. Writing allows for permanence that can be reviewed and altered; it allow one to refining a drafted sentence with multiple passes. In the absence of a writing system to capture an utterance or thought, a constructed segment is

ephemeral—lasting only as long as it takes to articulate the sounds or gestures of the construction.

In the case of signed languages, one might suggest that recorded videos would serve the same purpose as a writing system (i.e., allowing for the documentation of phrases and sentences). Video recordings have been invaluable for capturing aspects of ASL and Deaf culture over the years, but they are not fully comparable to a writing system in various aspects. The process of creating, reviewing, and editing video differs significantly from writing (in terms of time and resources that are required to perform those tasks). Yet, it is also true that video can capture a wealth of information that is not present in written language (e.g., affective and mimetic displays by the signer). Some authors (e.g., Bienvenu, 2009) suggest that videos of signed productions of ASL could be used for regular homework assignments. Yet, for many students there exist technology challenges for the creation and editing of videos. Some of the issues include access to high-quality, user-friendly video equipment and editing software and knowledge of video editing and storage (e.g., on CD or DVD). However, the situation is changing rapidly with the advent of increasingly sophisticated technologies that are becoming widespread among high schools, colleges, and universities. An important aspect of employing the use of video-based assignments is to train students on current technologies for the creation of quality videos; Bienvenu sees this as an important step in utilizing this methodology.

Some ASL programs include regular homework assignments that require students to create videos of themselves producing ASL. Needless to say, this type of assignment requires that instructors take the time to critique the signed work. Some instructors (e.g., Bienvenu, 2009) have suggested that more time is required to evaluate video work than written work, but others feel that there may be no differences (Schornstein, 2005). One difference between video-based and written homework, Bienvenu argues, is that a video-based assignment requires the instructor to rewind or fast-forward to other segments of the video for comparison purposes, whereas different pages of a written document can quickly and easily be scanned when needed.

Writing systems also allow for the development of a culture's written literature, which provides a language learner with a wealth of opportunities for practice with learning language structure and lexical items. In the absence of a written literature, a culture may engage genres of oral discourse (e.g., oratory, folklore, and performance art) for passing on the culture's traditions and beliefs, and this is certainly true for ASL (Frishberg, 1988). A video-based literature that captures genres of oral discourse could perhaps provide the same benefits as a written literature, though the availability of a large and diverse set of resources for signed language instruction and learning may remain limited—at least when compared with written resources for the common spoken languages that are taught to adult speakers. One particular issue with a lack of a written literature is the lack of resources for advanced courses—the level of language learning where students are involved in regular reading and composition of self-generated samples of extended language production. As noted earlier, the vast majority of ASL instruction that occurs, as reported by the 2009 MLA report (Furman et al.,

2010), focuses on introductory learning, though some advanced instruction is also available. The extent to which advanced ASL courses are limited, if at all, by a lack of a writing system has not been explored. This theme is an important one to remember when considering differences between the instruction of signed versus spoken language.

One recent study questioned whether a system for writing ASL signs and sentences would be useful for an ASL learner. Buisson (2007) investigated the efficacy of English glossing (or “written equivalents of ASL sentences”, p. 331) for facilitating the learning of ASL grammar by beginning L2 learners. In a study of an online glossing program, a test group of 66 students from four universities was given lessons that provided step-by-step instructions of the glossing of ASL sentences. Then, the students were asked to identify various aspects of the glossing conventions such as: (a) the correct glossing rule to be used for a segment and/or its application, (b) the correctly glossed phrase or sentence that corresponds to an ASL segment, and (c) an ASL segment that corresponded to a glossed phrase or sentence. This experimental group was compared to a control group that did not learn the glossing conventions or participate in the glossing tasks but rather engaged in reading online articles about deaf education and answering multiple-choice questions about the content. All participants were given grammar pre-tests and post-tests for both English and ASL. The results revealed that the glossing lessons significantly improved the ASL grammatical knowledge of the beginning learners; they scored nearly two standard deviations higher in the ASL grammatical posttest when compared to the control group. Unfortunately, Buisson does not provide details about which aspects of grammar were successfully acquired using this method. Interestingly, the English grammar knowledge of the test participants also improved significantly vis-à-vis that of the control group. Buisson suggests that this result may be due to the purposeful focus on lessons that compared and contrasted the grammars of English and ASL; the opportunity for students to use English as a source of comparison allowed them to also improve their English skills. In short, the author claims that glossing lessons (in this case, delivered via the internet) can provide a bridge for the adult speaker of English in their acquisition of ASL. The implications from the Buisson study are that instructors should consider whether some type of a writing system for ASL constructions might be useful for the learning of aspects of ASL.

UNIQUE ASPECTS OF ASL STRUCTURE AND IMPLICATIONS FOR ASL INSTRUCTION¹¹

There are certainly challenges involved in capturing signed language via a written form, and those are likely due, at least in part, to the possibility of using multiple articulators (e.g., the hands, the face, and the torso) simultaneously for encoding meaning creation. Lexical items that do not readily change in form (or meaning) such as common nouns (e.g. the ASL sign MOTHER or the compound FACE-STRONG) can be easily represented via their English translations (e.g. *mother* or *resemble*), but signs that can be inflected or otherwise

modified in form to change the meaning of the sign present challenges. For example, the sign TO-GIVE can be inflected for person, number, and temporal aspect by moving the hand(s) in particular ways and in specific orientations within the signing space, which could result in a sign with the meaning: *I give to them repeatedly*. The signer could simultaneously add a particular mouth (i.e., non-manual) gesture to the inflected sign that would provide manner (i.e., adverbial) information such as: *I give to them repeatedly in a haphazard way*. The inflections are said to occur simultaneously with the verb—rather than sequentially such as the affixes that commonly characterize conjugated forms in spoken language. These simultaneously realized inflections are particularly difficult to capture via a writing system that generally represents meaningful items sequentially.¹² One of the challenges that lies ahead for curriculum developers is to investigate the best ways to teach simultaneously realized morphology and inflections to students who are accustomed to the sequential morphology (e.g., affixes) of spoken languages. Such research might also benefit the teaching of languages for which simultaneous structure (e.g., grammatical tonal contrasts) is a notable part of the grammar. For example, questions about the cognitive processing of simultaneous versus sequential information could be investigated.

In the early years of ASL instruction (primarily through the 1970s), the teaching of ASL focused mostly on the learning of lexical items rather than on the complex grammar of a visual-spatial language (Peterson, 2009). This was likely due, in part, to the lack of resources for representing the complexities of a visual-spatial language, though other factors may also have contributed to the practice.¹³ Even so, it may be the case that the learning of individual signs may continue to be the focus of some instructors of ASL. Failure to highlight aspects of simultaneity within the grammar of ASL may lead many students to believe that learning ASL primarily means learning signs and sequencing them in accordance with English grammar. It has also been reported that students commonly use the curriculum materials as vocabulary books (Schornstein, 2005) rather than as guides for learning aspects of signed language grammar in addition to lexical material.

Some particularly difficult constructions for the L2 hearing learner of ASL involve *constructed action* and the so-called *classifiers* that are common in signed languages (Quinto-Pozos, 2005). Classifiers are signs that are used to describe the location, motion, and visual-geometric properties of objects and how they interact (Schembri, 2003; Supalla 1986). Constructed action, on the other hand, is the use of the body in mimetic ways for describing the actions and/or appearance of characters (Metzger, 1995; Quinto-Pozos, 2007). These types of constructions require the manipulation of visual perspective for comprehension (i.e., understanding that the signer's visual perspective differs from the interlocutor's perspective) and involve the simultaneous and/or coordinated production of multiple meaningful units. They are often difficult for the signed language learner (Quinto-Pozos, 2005; Schornstein, 2005). In order to provide students with a more complete picture of ASL (including its signs and its grammar), curricula need to include the various types of constructions that are mentioned here. In addition, future research should examine the efficacy of

teaching methods for these types of constructions, as noted in Quinto-Pozos (2005). Common ASL curricula are discussed later in this article.

As noted earlier, one other characteristic of signed languages that should be made explicit is the degree to which they employ iconicity within their lexical items and as part of their grammars. As an example, the ASL sign TREE is articulated with the forearm positioned vertically and all fingers of the hand are extended as if producing a gesture for the number five. In this rather iconic sign, people often liken the forearm to the trunk of a tree and the hand and fingers to the branches of the tree. Not all signs in ASL are iconic, of course, and natural linguistic processes seem to make iconic signs more arbitrary over time (Klima & Bellugi, 1979). In general, iconicity is not a feature of ASL that Deaf children take advantage of during acquisition (Meier, 1987; Meier, Mauk, Cheek, & Moreland, 2008), and even Deaf adult signers of ASL do not process iconic signs differently than non-iconic signs (Bosworth & Emmorey, 2010). However, the same may not be true for adults who could potentially capitalize on iconicity for memory reasons. This is an empirical question, of course, that could be examined within the context of L2 learning of ASL.

OTHER ASPECTS OF ASL INSTRUCTION

Some students take ASL because they think it will be an easy language to learn—perhaps because of its pictorial qualities or because they feel that it is simply English represented in the manual modality (Jacobowitz, 2005; Kemp, 1998; Peterson, 2009). In reality, certain aspects of ASL are quite difficult for the adult hearing person, and achieving fluency is not nearly as easy as many people think it may be. Jacobs (1996) analyzed ASL as a Category 4 language for English speakers, which means that it may be comparable to an adult L1 speaker of English learning Chinese or Japanese as an L2. A Category 4 language would be more difficult to learn than Spanish or French for a native English speaker. Unfortunately, some students who enroll in ASL do so because they have struggled with the learning of foreign spoken languages. In such cases, it is not clear if L2 language learning may be particularly difficult for such students, or if the challenge lies in learning languages that are spoken (and written). It may be the case that some students are better visual learners than auditory learners, and for those students ASL learning may, indeed, be easier for them to learn than a spoken language would be. However, no research has addressed this question. Because students often perceive ASL to be an easy language to learn, they may not expend the same effort to learn the language as they would to learn a spoken language. Future research could address possible differences between so-called auditory learners and visual learners and their abilities to acquire ASL.¹⁴

In spite of all the challenges of learning ASL for the adult learner, there are some learners who make notable progress with language learning. They achieve this in spite of having to learn how to use their hands, arms, and bodies in new ways and having to acquire a manual phonology as an adult.¹⁵ This speaks to the dedication of the instructors of ASL—many of whom have not received training in formal programs that focus on the teaching of ASL and the formal study of

SLA models and theories. There have been few programs for ASL instructors over the years, yet there exist many ASL instructors throughout the U.S. and Canada.¹⁶ This means that many ASL instructors have had to refine their teaching methods mostly through trial and error—by improving lessons and activities after obtaining feedback from students and colleagues. Of course, there also exists a small minority of instructors who have advanced degrees in the teaching of ASL from one of the few accredited programs that have been in existence.

A few organizations have been established over the years to assist with the provision of learning opportunities for ASL instructors. One of them is the American Sign Language Teachers Association (ASLTA), which is a national professional organization of educators dedicated to improving the teaching of ASL. The ASLTA was established by the National Association of the Deaf (NAD); it hosts biennial national conferences, and there also exist regular regional, state, and local workshops that are organized for ASL instructors. Another organization that is important to mention is the Conference of Interpreter Trainers (CIT). Like the ASLTA, the CIT hosts national conferences every two years. Both of these organizations exist to provide ASL instructors with opportunities for improving their knowledge of pedagogical methods and tips for teaching content related to ASL.

The ASLTA helps to set standards for ASL instruction. One approach that they have taken is to produce position papers on various topics such as general guidelines for consideration when an instructor candidate is being considered for a position, the suggested enrollment limit for ASL courses, and a code of ethics for ASL instructors.¹⁷ Incidentally, there has been considerable debate within the ASL teaching profession about who is qualified to teach the language. Some people feel that only Deaf and hard of hearing candidates are appropriate candidates for ASL instructor positions—presumably because they are core members of a community that uses ASL on a daily basis.¹⁸ Another manner in which the ASLTA has worked to develop standards for ASL instruction is by drafting a proposed ASL version of the American Council on the Teaching of Foreign Languages (ACTFL) guidelines. The document contains proposals for defining proficiency in ASL—from kindergarten to post-secondary classrooms. As such, the document is intended to apply to the instruction of ASL for both Deaf and hearing students. The Standards for Learning American Sign Language (Ashton, Cagle, Kurz, Newell, Peterson, & Zinza, in press) adopts the view of the Standards for Foreign Language Learning that language proficiency should be demonstrated through five domains: Communication, Cultures, Connections, Comparisons, and Communities (National Standards, 2010). This effort to create a version of the National Standards for ASL, which was driven by the ASLTA, allows ASL to be understood alongside its spoken language peers, and it will likely be an important guiding force in the profession for years to come.

One of the topics of discussion within the field of ASL instruction over the years has been whether or not to allow the use of spoken language in the classroom. In many cases, the ASL instructors are Deaf individuals who prefer not to use spoken language (for various reasons, some of which concern accessibility issues; spoken language is generally not very accessible to Deaf people with little or no residual hearing). Some ASL programs adopt “no voice” policies in

their classrooms, and instructors and students are expected to follow those policies throughout. As noted earlier, the no voice rules are in line with general norms of Deaf culture and are often espoused by Deaf instructors (McDermid, 2009). However, such rules are sometimes relaxed by hearing teachers in certain circumstances (e.g., during office hours, during a one-on-one encounter with a student, or even during class time if a student may not be understanding a key point made by the instructor). Some programs arrange for an interpreter to accompany the instructor for the first day of classes for beginning students; this facilitates communication during that class if the students have any questions about course requirements. It is important to note that not all programs follow this practice for various reasons (e.g., lack of available resources or beliefs that no speech should ever be used in the classroom at all because it will cause students to rely on that form of communication rather than on trying to make themselves understood in ASL). In general, “no voice” policies means that gesture is relied upon heavily, although written English is also employed by the instructor during lessons (e.g., writing on the board or in the form of handouts distributed to students). In addition, signing and speaking at the same time does not allow for a grammatically correct rendering of either the signed or the spoken language (see Tevenal & Villanueva, 2009), and engaging in speaking while signing likely presents an impediment to learning important aspects of the grammar of a signed language, as noted earlier. It should also be noted that some ASL instructors do use spoken English in the classroom. As suggested above, this practice is often looked upon negatively by Deaf signers of ASL, though it could be the case, in theory, that Deaf people who feel comfortable speaking may also employ the use of spoken English in the classroom. The practice likely occurs most often with hearing instructors. Whether or not the use of spoken English in certain situations (e.g., for clarifying confusion) allows students to more quickly acquire ASL is an empirical question that does not seem to have been addressed in the research literature. Notwithstanding the efficacy of using spoken English for ASL instruction, there lies a socio-cultural issue of allowing a means of communication that has often resulted in forms of oppression for members of the Deaf community over the years (Lane, Hoffmeister, & Bahan, 1996).

BEST PRACTICES TEACHING ASL

Current Curricula

Various curricula for teaching ASL have been developed over the years, and the majority of ASL programs in the United States utilize one or more of those resources.¹⁹ Those curricula have only been in existence since about the 1980s, with prior materials either being structured primarily in dictionary formats with pictures and/or descriptions of signs with minimal information about grammar and culture (Peterson, 2009; Rosen, 2010). In the early decades of ASL teaching several conferences were held to discuss aspects of ASL linguistics and the teaching of ASL (as one example, see Caccamise & Hicks, 1978).

Rosen (2010) compares the most common curricula in use today for the teaching of ASL, including an analysis of the general theoretical assumptions about L2 language learning that underlie the various approaches. His analysis finds that common curricula for teaching ASL can be described in terms of various theories of language instruction that have been popular over the years, although no curriculum currently espouses content-based instruction (CBI) or task-based language teaching (TBLT), which he suggests are common in the current L2 teaching of spoken languages. A recurring theme in Rosen's writings is that instructors of ASL should become more knowledgeable about the theoretical underpinnings of the curricula that they utilize for teaching ASL; presumably this would help them to improve the effectiveness of their instructional approaches.

An early text, *A Basic Course in American Sign Language* (Humphries, Padden, & O'Rourke, 1980), often referred to as the *ABC* book, was perhaps one of the first books that contained substantial information about grammatical matters in addition to clear sketches of signs that have served as examples for ASL signs for countless students of ASL over the years. The language learning methods suggested within this text were formatted as language drills. A later curriculum by two of the authors, *Learning American Sign Language* (Humphries & Padden, 1992), expanded upon the earlier material and introduced a video accompaniment with examples of the lexical and grammatical content within the books. Rosen (2010) reported that this curriculum is used in nearly half (49%) of the 701 high schools throughout the country that completed his survey.²⁰

Another pioneering curriculum in the field was simply named *American Sign Language* (Baker-Shenk & Cokely, 1980), though it has been affectionately known as the *Green Books* because of the color of the cover that was used for the three books within the set. This curriculum contained an extensive description of grammatical aspects of ASL, which have been referenced many times over the years—including citations by linguists who have been engaged in detailed studies of the structure of the language. Additionally, the *Green Books* were characterized by language drills, which were likely common within the pedagogical methods of the time in which it was developed. The curriculum contains video resources for students to view short dialogues between two fluent Deaf signers, and the dialogues—designed to be imitated by the language learner—constitute a notable portion of the material in the books. Rosen (2010) claims that the *Green Books* is a curriculum used in 30% of high school programs.²¹

The most common curriculum in use by high school programs today (83% of the programs, according to Rosen, 2010) had its beginnings in the late 1980s, and it emphasized a different methodology for ASL instruction: the functional-notional framework. The introduction of *Signing Naturally* (Smith, Lentz, & Mikos, 1988) to the field of ASL instruction is viewed by some as representing a watershed event for ASL instruction (Peterson, 2009). Of particular note is that the methodology encouraged language learning by focusing on common ways in which people interact (e.g., introductions, talking about where one lives and their family, and making requests); explicit grammatical instruction is not emphasized in this curriculum. The instructor is guided through the approach with curriculum guides for the three levels of the curriculum. Video texts in

DVD format also accompanied this curriculum. In 2009, a second edition of the original Level I of the series was published, and the curriculum remains very popular for ASL programs—both at the secondary and post-secondary level.

Other curricula are also used for the teaching of ASL. *Bravo ASL!* (Cassell, 1996), which is used in less than 10 percent of high school programs (Rosen, 2010) has been in existence for 15 years. This curriculum takes the learner through the daily interactions of a Deaf man and his family and examples of the common types of daily activities that allow the learner to be exposed to ASL that is based on functions of interaction. As with the other curricula, *Bravo ASL!* contains a student workbook with grammatical information and cultural notes. A newer curriculum is *Master ASL!* (Zinza, 2006), which seems to be gaining in popularity. This curriculum covers introductory material for ASL learning, and it also contains workbooks with accompanying video resources (i.e., a DVD). A myriad of other curricula have also been developed in recent years, and some of them take advantage of Internet technologies for distribution. This brief review of common ASL curricula is not intended to be exhaustive, but rather to provide a snapshot of the types of resources that have been commonly used since the 1980s in ASL classrooms. See Rosen (2010) for a more comprehensive comparison of commonly used ASL curricula.

It appears that no study has looked at the efficacy of one curriculum over another. Thoryk (2010) also suggested this to be the case, and she noted that “instead of addressing efficacy, current ASL materials predominantly rely on generalized, short-phrase references to ‘natural settings’ or amorphous ‘standards’; inclusion of anecdotal claims and testimonies; and vague references to ‘field testing’ without providing access to any real data” (pp 100–101). Additionally, as Rosen (2010) pointed out, none of the curricula commonly in use today utilize the teaching philosophies that have been adopted most recently for the instruction of spoken languages (e.g., CBI and TBLT). However, he also notes that “there is no empirical study of the impact that pedagogies in ASL as a second language have on learning” (352). As one possible example, it may be the case that language learning in the visual modality, because of its strong tendency toward visual iconicity, might allow the learner to take advantage of other cognitive skills (e.g., visual-based memory and the management of non-linguistic spatial phenomena) for their acquisition of a signed language. This is only a possibility—one that must be explored with empirical studies that examine such skills and their role in each of the curricula that are used.

OTHER MATERIALS FOR THE ACQUISITION OF SPECIFIC SKILLS

In addition to the curricula that have been developed for the learning of ASL in the classroom, there also exist various extra-curricular learning resources that target specific aspects of the language. For example, fingerspelling, a system for representing the letters of an alphabet via handshapes and movements, is used regularly within ASL, and the majority of adult learners of ASL struggle with fingerspelling comprehension or production.²² Because of these struggles,

materials have been developed over the years in an effort to focus on the development of such skills.²³ Fingerspelling is covered in a few of the general curricula on the market, but not with the focus that the self-contained products have provided. There also exist videos and workbooks that focus solely on ASL numbers and various ways in which certain ASL signs can incorporate quantities (e.g., the single signs FIVE-DOLLARS for the meaning *five dollars* or TWO-WEEKS with downward movement of the hands for the meaning *every two weeks*).

There are various commercially available products for focusing on fingerspelling skills. Some of these materials contain extensive descriptions of fingerspelling in ASL—including the history of fingerspelling within the language and how some commonly fingerspelled words have become lexicalized over time and now appear more sign-like in nature. However, some of the materials only provide learners with video examples of fingerspelled words with which to practice their comprehension skills.

The methods for practicing fingerspelling production and comprehension often involve drills and activities that are designed to have the learner focus on the production or comprehension of fingerspelling. However, most of these methods for acquiring fingerspelling skills have not been assessed. This is not true, however, with respect to one such fingerspelling curriculum, which has been investigated by some of the limited research on the ASL pedagogical materials.

Thoryk (2010) investigated the efficacy of a particular curriculum resource for the acquisition of fingerspelling skills. The author tested a commercially-available teacher text and two accompanying DVDs that focus on the acquisition of fingerspelling skills by providing the instructor with various lessons for guiding students through the learning of fingerspelled words with various characteristics (e.g., common vs. uncommon words, common vs. uncommon letter combinations, and items that appear more sign-like vs. those that are characteristically more sequential in nature).

Students in ASL classes at a state-funded university and its regional campuses comprised the learners whose progress was evaluated by Thoryk (2010), with an experimental group being exposed to the curriculum by their instructors in addition to their regular ASL curriculum and a control group having only been exposed to fingerspelling via the regular ways in which students learn about that skill through their standard curricula.

The pre- and post-test scores showed that there was no measured improvement in the comprehension skills of the students across the two groups. The experimental group exhibited a mean gain of 10 points over the semester, whereas the control group improved, on average, by 12 points. In addition, Thoryk (2010) reported that the experimental group exhibited greater variation than the control group.

Thoryk's (2010) study showed that the fingerspelling curriculum that was employed was not effective in significantly improving a student's comprehension of fingerspelled items in comparison with the typical type of exposure that a student might receive by learning ASL through one or two of the most commonly used ASL curricula. This study was insightful, though the extent to which practice time, or frequency of exposure to the fingerspelling, might have an effect is not known. It is not clear whether more frequent exposure to the

curriculum would result in better skills than not using the curriculum at all. Nonetheless, the study serves as an important example of the need to scrutinize curricula in order to determine their efficacy as learning materials. Instructors should be aware that some curricula may not be successful at improving students' skills in comparison with methods that do not employ the curricula. If such materials are used, instructors could consider taking steps to assess their usefulness.

RETHINKING HOW WE APPROACH A VISUAL-GESTURAL LANGUAGE

In addition to the availability of curricula and resources for teaching and learning various aspects of ASL, at least a couple works have been written about the teaching and learning of a signed language. Wilcox and Wilcox (1997) is geared toward "good teachers who need program and classroom guidelines for the teaching of ASL" (p. 3), whereas Peterson (2009) provides the student who is about to embark on ASL learning a general introduction to some of the points that should be considered before learning a signed language. The general goal of both of these works is clear: visual-gestural language learning may not conform to what hearing people expect from language learning experiences with spoken languages. Part of the title of the Wilcox and Wilcox book perhaps captures the essence of their efforts: *Learning to See: Teaching American Sign Language as a Second Language*.

It appears that Wilcox and Wilcox (1997) was intended as a resource for ASL teachers who have had limited access to formal preparation for becoming ASL instructors. The authors point out that the increased popularity of ASL classes over the years has had an impact on the field of ASL instruction, which has been generally ill-prepared to respond to the need for increased enrollment. They note that there have been few teacher training programs, no standard curricula,²⁴ little or no literature on the L2 instruction of ASL, and no accreditation procedures for ASL programs and teachers. For these reasons, the authors provided a resource for instructors that addresses various topics such as: myths and misconceptions about ASL, discussions of language mode (e.g. spoken, written, signed) and how ASL and English are situated in the Deaf community taking into account language mode, information about the linguistic structure of ASL, various aspects of Deaf culture, and a myriad of points about teaching ASL (including curriculum and course design, evaluation and measurement, and general information about instructional materials). The book constitutes an important resource for novice teachers of ASL or those who have not had access to such information from formal education.

Whereas Wilcox and Wilcox (1997) present points about ASL instruction from a teacher's perspective, Peterson (2009) is interested in clarifying some of the myths and misconceptions that beginning students tend to have before embarking on their study of ASL. This theme of prevailing misunderstandings is an echo of the Wilcox and Wilcox (1997) discussion of the topic. However, Peterson's discussions are based on the results of a survey that was completed by 1,115 new university students of ASL. The size of that sample is impressive, and it provides

Peterson with data to make his points about the lack of accurate information that many students have about ASL. The sample was primarily female (80%), mostly monolingual English speakers (80%), and primarily college-aged (67% were 18–24 years of age).

One of Peterson's (2009) interests lies in students' perceptions of ASL. He reported that nearly 68% of the students from his survey answered "yes" to the question "Is ASL is a visual-gestural form of English?" In addition, 60% of the students agreed to the statement "It will be easier to learn ASL if the teacher signs and speaks at the same time." Responses to both of these questions provide evidence that a particular misconception among hearing people is that ASL is simply a manual form of English. This may have contributed to the fact that more than half (53%) of the students felt that they would be fluent within two years, which aligns with the general belief (not from the survey) that a student can learn the language and how to interpret between that language and English within the time it takes to complete an Associate's or Bachelor's degree. Peterson's book, therefore, is an attempt at dispelling myths about ASL and the learning of the language in hopes of setting the stage for more efficient language learning. The writings of Wilcox and Wilcox (1997) and Peterson (2009) suggest that ASL instructors should carefully consider the preconceptions that hearing students bring to their experiences with the adult learning of ASL. Perhaps some of the differences between visual-gestural and auditory-oral languages should be made explicit to the language learner before they fully engage in the learning process. Whether this would result in more successful language learning is also a possible topic for future research.

SUGGESTED DIRECTIONS FOR RESEARCH

ASL instruction has gained a notable presence in secondary and post-secondary institutions within the last 15–20 years. Student enrollment has increased tremendously, the number of required instructors to meet student demand has multiplied, and the number of high schools, colleges, and universities that accept ASL as a language that fulfills a foreign language requirement has grown steadily. Yet systematic examination of the teaching resources and methodologies that have been used has mostly not occurred. In order for the field to move forward, this needs to change. Some possible themes for research could be the following: the socio-political history of the Deaf community in which ASL instruction is situated, linguistic differences between signed and spoken languages, and the use of video and computer-based technologies.

The ASL classroom is but one reflection of the Deaf community's interactions between Deaf and hearing people; however, in this case ASL is the expected language of interaction and the ASL-signing model (i.e., the instructor who is often a member of the Deaf community) is in charge. This dynamic is, in some ways, the opposite of what is encountered in everyday life for the students and even the instructor, if he/she is Deaf. Deaf and non-Deaf ideologies co-exist in this space, though the Deaf ones may be highlighted and supported in these classroom interactions. It is within this academic setting that hearing students

begin to learn about what Deaf people value—in terms of communication. The dynamics of this setting likely influence the ways in which ASL is taught and what is expected from the students. Understanding the dynamics of this setting is an important step in being able to explain the uniqueness of ASL instruction. In general terms, what can be learned about instructors of ASL, about their position with respect to the larger Deaf community, and about how Deaf and non-Deaf ideologies have affected the way ASL is commonly taught? What are the specific effects on the teaching of ASL that come from cultural (i.e., Deaf culture) influences? This is an area of inquiry that may be particularly informative to SLA researchers who may not be aware of the intricacies of Deaf culture. In particular, what can the larger SLA community learn from teaching practices that have their roots in a rich and complex minority community? Within this line of research one should also examine the beliefs of ASL instructors about teaching and what they feel is effective. In other words, what would ASL instructors suggest (in terms of research) for how to move the field forward? Such work would allow ASL instructors to contribute to regular discussions of language pedagogy within the much larger field of SLA research and practice.

This area of research would also allow investigators to examine whether having beginning hearing students learn about the complexities of the socio-cultural history of Deaf and non-Deaf communities early in their experience (e.g., with resources such as Peterson, 2009) allows them to be more successful ASL learners. It may be the case that allowing beginning students to learn about ASL and the Deaf community would also assist in their subsequent ASL learning.

In addition, there remains much work to be done in the area of classroom-based linguistic topics. For example, to what extent should English (whether it be written, spoken, or even signed) be used in the classroom and are there effective ways of incorporating English into the teaching of ASL (e.g., through glossing, written homework, fingerspelling certain items, etc.)? In terms of fingerspelling, when might be the best time to incorporate fingerspelling into the teaching of ASL and to what extent should it be explicitly taught? Are there influences from English that might be best to avoid in the classroom? Many adult learners of ASL have acquired English as a first language, and research on this topic is vital.

One could also consider various questions regarding the uniqueness of ASL when compared to spoken languages. For example, can visual iconicity serve as a bridge to ASL learning? Can a focus on the teaching of so-called classifiers and constructed action allow the adult hearing learner of ASL to rely less on English structure when learning ASL grammar? Does the learning of ASL for hearing adults present unique challenges for students who must acquire a manual phonology (i.e., a phonological system that uses hand configurations, movements and locations in the signing space for realization) while also becoming accustomed to new ways of motorically using their arms, hands, and bodies? Some of these questions can be captured by the larger query: What are the impacts of linguistic similarities and differences between signed and spoken languages on pedagogy?

Finally, what types of video and computer-based technologies might be successful teaching aids for a visual-gestural language? On the surface, this question

might seem to only concern the teaching of ASL and other sign languages, but it is likely that the teaching of spoken language could benefit greatly from knowing more about how all learners utilize visual information (e.g., body language and gesture²⁵) while they are learning a language. In other words, what is the role of multi-modal cues as part of L2 learning and the development of socio-pragmatic competence for a language learner? In the case of ASL, are there specific types of video technologies that are best for homework, student revisions of their signing, and ASL assessments? What are the best ways to deliver practice resources for students (e.g., fingerspelling exercises, lessons on grammar, and the presentation of lexical items)? Should video materials (e.g., Internet, DVDs, etc.) allow the student to control the speed at which the language is being produced? Should English translations be presented, side-by-side, with the ASL videos? Are classroom technologies that are designed for assisting with instruction (e.g., Smartboard) effective for facilitating the teaching and learning of ASL and other visual languages? It may be the case that such technologies actually hamper the visual communication strategies that are being acquired by the novice learner of ASL.²⁶ And, what are the types of video and computer-based resources that are effective for online teaching of a signed language?

Inquiry into these three broad areas would provide ASL instructors and curriculum designers with much needed information for continually improving methods of ASL instruction. In addition, such work could serve to highlight similarities and differences between the teaching of signed and spoken languages; this is information that all language professionals—instructors and researchers alike—may benefit from having. ASL instruction can learn a great deal from what has been done in the field of SLA, and instructors and researchers of spoken language could also benefit from understanding how visual-gestural language is most effectively taught. It is likely that the popularity of ASL will continue, and there is much work to be done.

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NOTES

- 1 As is customary, the use of “Deaf” (with capitalized “D”) refers to a cultural and linguistic minority that uses signed language for daily communication, whereas “deaf” (with lower-case “d”) refers solely to audiological status.
- 2 As noted, ASL is also the signed language of English-speaking Canada. However, most of the statistics reported in this article come from data about the teaching of ASL in the U.S.

- 3 Welles (2004) reported that there was a 432% increase in enrollments between 1998 and 2002, but she also noted that that figure is partially a result of differences in reporting. In 2002, the survey asked specifically for ASL enrollments, whereas in 1998, ASL enrollments that were reported were included in the category labeled *other languages*.
- 4 This ratio includes courses in two- and four-year institutions, with an average mean for all languages reported at approximately five to one. The only language that approaches ASL in a similar comparison is Italian, listed at a ratio of 10 introductory courses for every advanced course.
- 5 The vast majority of adult learners of ASL are hearing individuals, though occasionally, deaf or hard-of-hearing students who have had limited or no exposure to ASL will take ASL foreign language courses alongside their hearing peers. This is sometimes done because the students find spoken/written foreign languages too difficult to learn or perhaps the students feel they would like to improve their ASL skills. In most cases, Deaf students have never taken an ASL course before, which is unlike the common practice of hearing students taking English (or another language) throughout their school career. This fact is changing, however, since some schools for the Deaf are beginning to offer ASL courses to their Deaf and hard-of-hearing students.
- 6 Internet searches revealed few mentions of ASL within SLA journals and at SLA conferences. However, research on the teaching of other signed languages to hearing adults is emerging (see Mertzani, 2010; Napier, Leigh, & Nann, 2007). Additionally, less-pedagogically oriented literature on SLA and sign languages has had an important impact on theoretical discussions—specifically with respect to the critical period hypothesis (e.g., see Mayberry, 1993; Newport, 1990).
- 7 Ironically, the writing of this manuscript by a hearing person who is a late learner of ASL and not by a Deaf instructor or researcher of ASL may be viewed as evidence of the types of power differentials that have existed—and continue to exist—between Deaf and hearing people for years.
- 8 *Audism*, according to various sources, was originally coined by Tom Humphries, an academic who is among the early developers of ASL curricula for hearing students.
- 9 Some may consider the dynamics between Deaf and hearing individuals as representative of socio-political factors as opposed to what has been described here as socio-cultural matters. In either case, the role of power differentials between Deaf and hearing individuals is a notable characteristic of such interactions.
- 10 A few systems for transcribing signed languages have been invented, but they are typically used for research purposes. One notable exception is SignWriting (www.signwriting.org), which is a system that uses visual symbols to represent various components of signs. The use of SignWriting appears to be more widespread than it was in the past (and it has been used to document material from various sign languages), though it is typically not used within the ASL L2 classroom for pedagogical purposes.
- 11 Whereas this section highlights ways in which signed languages might pattern in unique ways, there are also multiple linguistic similarities between signed and some spoken languages (e.g., aspects of word order, lack of copular constructions, and many null-subject realizations, to name a few). It might be useful to examine how pedagogies are similar across signed and spoken languages for the teaching of such devices.
- 12 The ability to inflect certain signs without the use of sequential affixes and the use of various parts of the body (i.e., the hands, the head, and the torso) for meaning creation not only represent differences between signed and spoken languages, but also may be the primary reasons why it is not entirely possible to faithfully produce a signed and spoken language simultaneously. Generally, spoken languages differ in aspects of their grammar (e.g., word order and morphological processes) from signed languages, and that is why signing and speaking at the same time results in ungrammatical or incomplete productions of one or both languages (e.g., Tevenal & Villanueva, 2009). If sequential phenomena were similar across modalities, the production timing of corresponding constructions from signed and spoken languages

- could presumably match up and serve as a way for hearing learners to use their L1 for learning the signed language. Unfortunately, signing and speaking results in signed segments that most closely match the spoken language word order but omit or incorrectly portray much needed grammatical information from the signed language.
- 13 For example, many people were unaware of the richness and complexity of ASL during the early years of ASL instruction. In addition, attitudinal factors that surrounded ASL and the Deaf community (e.g., see Lane, Hoffmeister, & Bahan, 1996) may have played a role in the ways in which ASL was taught.
 - 14 Another related point is that ASL students who aim to become ASL-English interpreters are faced, during their training, with the dual task of learning ASL and learning how to interpret between two languages. Many interpreter training programs are found at community colleges though more four-year programs are now available, which means that some ASL students are exposed to little more than two years of ASL instruction before they find themselves in professional interpreting positions. To my knowledge, this situation is not mirrored in the field of spoken language interpretation or translation. Anecdotally speaking, the result for ASL is that many novice interpreters do not have the ASL skills to perform adequately in their interpreting assignments. Unfortunately, the Deaf community has encountered this reality for decades.
 - 15 Presumably, one potential benefit of having to learn a manual phonology as an adult is that students do not experience interference from their L1 phonology. However, if one considers vocabulary learning, a student would not have the benefit of capitalizing on cognates between languages for bootstrapping their acquisition of new words.
 - 16 In the U.S. alone, if one considers that nearly 92,000 students are taking ASL at colleges and universities (Furman, Goldberg, & Lusin, 2010), and there are 701 high schools that offer ASL (Rosen, 2008), a conservative estimate of the number of ASL instructors throughout the U.S. would be 1,850. This figure represents one ASL teacher per high school and college/university instructors teaching four courses with 20 students in each course. However, this does not take into account part-time instructors who teach fewer than four classes at any one institution.
 - 17 See www.aslta.org for more information about these matters.
 - 18 Kanda & Fleischer (1988) put forth suggestions for the profiles of ASL instructors. Additionally, see www.aslta.org for information related to this topic.
 - 19 Rosen (2010) notes that more than three-fourths of high schools throughout the country use more than one curriculum for instruction, and more than half of the teachers in his survey (from 701 public high schools) make their own materials. In most cases, the teacher-created materials are likely to augment existing curricula.
 - 20 Rosen (2008) reported only on ASL instruction of ASL in high schools. Figures for college and university instruction are not currently available.
 - 21 Presumably, Rosen's (2010) survey allowed respondents to indicate all the curricula that they use, which results in percentages that total more than 100%.
 - 22 Fingerspelling is common in ASL, whereas it may not be used to the same extent in other signed languages. By some accounts, fingerspelled words comprise between 5–15% of the lexical items in discourse (Morford & MacFarlane, 2003; Padden & Gunsauls, 2003).
 - 23 Another aspect of ASL that has received attention lately with respect to the development of resources for teaching and learning is the so-called classifiers of the language. As one example, TreeHouse Video has created various materials that focus on classifier constructions are designed to complement traditional ASL curricula (Lessard, 2002).
 - 24 Presumably, Wilcox and Wilcox (1997) were referring to not having curricula with measurable student outcomes that could be evaluated across language programs and schools.
 - 25 There is growing interest in examining the use of co-speech gesture as a language learning resource. For example, see Gullberg (2010).
 - 26 I thank an anonymous reviewer for commenting on the use of Smartboard, a topic that has been discussed in an online listserve of ASL instructors.

ANNOTATED BIBLIOGRAPHY

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Mertzani presents a collection of writings from authors representing signed language teaching throughout Europe and other continents. The collection, representing talks given at the 1st Symposium in Applied Sign Linguistics held at the University of Bristol in 2009, highlights teaching methods and resources, teacher training, linguistic phenomena, and pedagogical approaches to teaching signed language (including online approaches). This work represents an important contribution to an emerging field of applied sign linguistics because of the diversity of perspectives that it includes, the multiple sign languages that it covers, and the possibilities for future research that it highlights.

Napier, J., Leigh, G., & Nann, S. (2007). Teaching sign language to hearing parents of Deaf children: An action research process. *Deafness and Education International*, 9, 83–100.

Napier and colleagues provide a detailed account of a program developed in Australia for teaching Australian Sign Language (Auslan) to hearing parents of Deaf children. This population of learners is often overlooked because many of them are not among the typical students enrolled in signed language courses at colleges and universities. An important facet of the Napier et al. study is the process used to develop their curriculum: they sought input from various groups of interested parties: professionals with expertise in Auslan and services for deaf individuals (e.g., early language intervention programs with hearing parents), teachers (of Auslan to hearing students and general educators of deaf children), and the parents of deaf children. The authors report on the program that was developed and some of the teaching resources that were produced as part of that process. Details of this work are invaluable and could be used for future research on the efficacy of such curricula.

Peterson, R. (2009). *The unlearning curve: Learning to learn American Sign Language*. Burtonsville, MD: Sign Media.

This book details Peterson's doctoral dissertation research: a look at various perceptions that hearing students have about the learning of ASL. The author argues that his results show that many students approach the learning of ASL with many misconceptions, and part of the process of learning, for those students, is modifying those preconceived notions in order to more successfully learn the language. Peterson used a survey approach, and his sample size is impressive (over 1,100 students). Additionally, Peterson brings years of experience interacting with the Deaf community and time as an administrator of ASL programs to his perspective about how ASL learners can be more successful. As with other suggested pedagogical approaches, in future research it would be worthwhile to compare students whose learning has been supported by learning *about* ASL (either before or early in the learning of the language) and those students who do not have the benefit of the material covered in this book.

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