

Proficiency and depiction in ASL

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Abstract

In my presentation given at CIT, 2014, I describe and discuss a pilot study on depiction and proficiency in American Sign Language (ASL), *Examining the Use of Depiction across American Sign Language Proficiency Interview Assessment Levels*. This paper provides an overview of depiction and depiction types, and a description of a pilot study on depiction and proficiency in ASL. *Depiction* refers to “the ability to visually represent semantic components” (Dudis, 2007, p. 1) and is essential in ASL. Research has shown an average of 20 instances of depiction per minute in ASL as generated by native Deaf signers (Thumann, 2010). The high occurrence of depiction suggests that to achieve a higher level of competence in ASL it is necessary to incorporate depiction of varying types in language use. By comparing types and frequency of depiction usage at different levels of proficiency on the American Sign Language Proficiency Interview (ASLPI), we can gain insight about the type and occurrence of depiction by native signers with higher levels of proficiency and identify gaps and problems with producing depiction by those at lower levels of proficiency.

Keywords: depiction, American Sign Language, ASL proficiency

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Description of the Project

As a linguist and an interpreter educator I have had many discussions with members of the Deaf community, linguists, interpreter educators, and interpreting students about features of ASL, improving our understanding of ASL, what it means to be proficient in ASL, and ways to improve proficiency in ASL. Many of these discussions centered around depiction in ASL; one study has shown an average of 20 instances of depiction per minute in ASL in presentations by native Deaf signers (Thumann, 2010⁴⁸); however, there is presently no research on patterns of depiction usage by first and second language users of ASL. Given that depiction is an obligatory linguistic feature of ASL discourse, we must develop a better understanding of depiction usage by native signers and signers at various levels of proficiency. This pilot study is aimed at addressing that gap by gaining information about depiction at various levels of proficiency which can be applied to developing focused language enhancement strategies for those who are acquiring ASL as their first language as well as for improving ASL proficiency of second language learners of ASL.

In this project, the research team will analyze depiction usage by at least ten individuals who have been assessed at varying levels of proficiency on the ASLPI, and will then compare depiction usage by groups of signers at each level. By comparing depiction usage between groups to find patterns, we can gain a better idea of the features of ASL and the types of depiction evidenced in the language use of signers assessed at various levels of proficiency. Using this information, we will then identify indicators of fluency in using depiction by skilled signers and problem areas of less skilled signers. This analysis will provide insight into the type and occurrence of depiction in language use at each of the levels of proficiency of the ASLPI. This pilot study will be replicated in a larger study that will include the development of strategies toward (1) designing effective curriculum for teaching ASL as a first or second language, (2) enhancing teaching in ASL education programs, teacher education programs and ASL-English interpreter education, and ultimately, (3) improving ASL education, Deaf education (by improving language use of educators using ASL), and ASL-English interpreting services.

Three groups may benefit from the information gained by the analysis of depiction in the language use of signers. These groups include first language users of ASL, children who are deaf and need access to a signed language, and second language learners of ASL. First language users of ASL include individuals who are Deaf or hearing with Deaf families who use ASL. This study may provide access to information about ASL structure and grammar in much the same way English speakers have access or education about English rules of grammar. The results from this study may also be used to teach features of ASL to the second group, those children who are deaf and need access to a signed language and for whom ASL would be considered their primary language. The third group, second language learners of ASL, encompasses interpreters, teachers, and other professionals working with Deaf people as well as those taking ASL as a second language for their own personal or professional development.

Although this study is intended to provide information that will be applied to work with all three groups, in this paper, I focus on the third group, second language learners of ASL who are interpreters or studying to be interpreters. According to the 2007 National Consortium of Interpreter Education Centers' (NCIEC) report, there has been

⁴⁸ Portions of this paper originally appeared in my dissertation, Thumann (2010).

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increasing concern regarding the growing demand for interpreting services and the shortage in the supply of qualified interpreters. According to Winston and Cokely (2009), 85-90% of ASL-English interpreters are second language learners of ASL. The lack of qualified interpreters is directly related to gaps in language proficiency due, in part, to the fact that the majority of interpreters are second language learners of ASL (Taylor, 2002; Quinto-Pozos, 2005). Although ASL - English interpreters are assumed to have a high level of fluency in both languages, there are features of ASL that many second language learners have not mastered. This study focuses on one aspect of ASL, depiction, and seeks to provide information that will assist second language learners in improving their proficiency with the use of depiction.

Many signers have misconceptions about some of the features of ASL related to depiction, and many second language learners struggle with these features. Many problem areas in the language use of L2 signers involve critical elements of depiction, “the ability to visually represent semantic components” (Dudis, 2007, p. 1). Two examples of depiction that are familiar to signers are role shifting and classifiers, but there are more types of depiction as suggested in Liddell (2003) and Dudis (2007, 2011). Problem areas include the appropriate use of classifiers; using eye gaze and facial expression appropriately; use of body shifts; appropriately using locations in signing space; and appropriate production of nonmanual grammar (Jacobs, 1996; Locker, McKee, & McKee, 1992; Wilcox & Wilcox, 1997).

Based on observation and anecdotal information, depiction appears to be difficult for second language learners to acquire. For those who do incorporate depiction in their language use, their use of depiction may be different than the use of depiction by native signers. In order to help language learners achieve a higher level of competence in ASL, there should be detailed information about depiction usage at various levels of language fluency.

The study

This study was designed to analyze the use of depiction by signers assessed at various levels of proficiency in ASL. The aims of this study are twofold: (1) to gain insights into a critical linguistic feature in ASL and (2) to identify patterns of depiction in the language use of signers at various levels of proficiency. For this project, I obtained access to language samples from individuals who completed the American Sign Language Proficiency Interview (ASLPI) assessment and received a score of between 0 - 5. The samples are being analyzed for types and frequency of depiction.

This project is aimed at gaining information about the use of depiction at seven of the proficiency levels identified by the ASLPI. Following Thumann (2010), this study will use both qualitative and quantitative approaches in its examination of ASL depiction. Research questions guiding this study are:

- What types of depiction occur in the language use of signers at various levels of proficiency?
- What is the frequency of occurrence of these types of depiction in the language use of signers at various levels of proficiency on the ASLPI?
- How does depiction usage compare among signers of different ASLPI levels?

The data used for analysis comes from Gallaudet University’s ASL Diagnostic and Evaluation Services (ASLDES). Videos of ASLPI participants who have granted permission for research on their language use in the ASLPI interviews will be analyzed for instances of depiction. There will be a minimum of 10 videos of individuals who have been assessed at proficiency levels between 0 – 5 on the ASLPI (see below for a description of each level). Additional videos may be examined if time and resources permit. The current study only examines the use of depiction in the language samples of each of these levels. This provides the opportunity to identify whether or not there are patterns of depiction usage at each level and if so, to identify some of the differences in the use of depiction by signers in each category.

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Using ELAN⁴⁹, a professional transcription tool, the research group, is analyzing the data for the presence or absence of depiction, types of depiction (Dudis 2011, 2007), and the differences in depiction usage. This analysis will provide insight into the types and occurrence of depiction in the language use of signers assessed at various levels of language fluency. The results will be compiled and used for work on a larger study, which will be designed to replicate this pilot study and be designed to develop strategies to improve curricula and focused strategies and materials for teachers of ASL as a second language, educators who use ASL, and those who assess ASL proficiency levels.

Depiction and Depiction Types

The depiction of an event is a representation of the event and involves the act of showing what something “*looks like* or *is like*” (Streeck, 2008, p. 289). This may be accomplished by the use of gestures, words, vocal intonation, or partial physical demonstrations. My definition of depiction draws from the work of Liddell (2003) and Dudis (2007, 2011) who analyzed various features of ASL and provided information on the use of depiction. In their examination of ASL, Liddell (2003) and Dudis (2007, 2011) provide an important foundation for understanding depiction and the use of signing space in ASL. They also provide insight into the spectrum of options available to the signer. In this study, I follow Dudis (2007, 2011) and identify depiction as occurring when signers utilize their articulators, their body, and the signing space around them to represent an entity, event, or abstract concept.

Depiction involves the visual representation of aspects of an entity, an event, or an abstract concept using components accessible in the immediate environment. Using depiction signers provide a partial demonstration of the event being described (Liddell, 2003). In a study about depiction in ASL presentations (Thumann 2010), 3,271 instances of depiction were identified in 160 minutes of video. These instances of depiction range in length from less than one tenth of a second to over five seconds and include list buoys, depicting verbs, token blends, and surrogate blends.

Several previous studies have noted various features of ASL that fall into the category of depiction. Role shifting in which the signer represents that actions or dialogue of another character, may be marked by changes in facial configuration, the direction of eye gaze and a shift in body position (Padden, 1986); constructed dialogue, a term introduced by Tannen in 1986, is marked by lexical introducers and nonmanual signals (Roy, 1989). Winston (1991a) reported that shifts in head, body, or eye gaze are the way a signer accomplishes constructed dialogue; she also introduced the concept of constructed action in ASL (Winston, 1991b). Additional findings, specific to narratives in ASL, involve signing space, constructed action or constructed dialogue (Metzger, 1995; Reilly, 2000), and referential shift or perspective shift (Janzen, 2004; Poulin & Miller 1995; Reilly, 2000). These features all fall into various categories of depiction type as identified by Dudis (2007). Dudis is currently revising the depiction identification flow chart (version 4.9.2), which provides questions and information that aid in categorizing various types of depiction (Dudis, personal communication, May 2014).

Categories of Depiction Type

⁴⁹ ELAN (Eudico Linguistic Annotator) is a professional transcription tool designed for analysis of audio or video and is available as a free download from the Max Planck Institute website (<http://www.lat-mpi.eu/tools/elan>).

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Dudis (2007) identified three major categories of depiction: abstract, setting, and event depiction. His current version of the flowchart (see Figure 1) presents a series of questions used to determine the depiction type of depiction. This chart (Figure 1) shows many of the options for depiction identified in ASL.

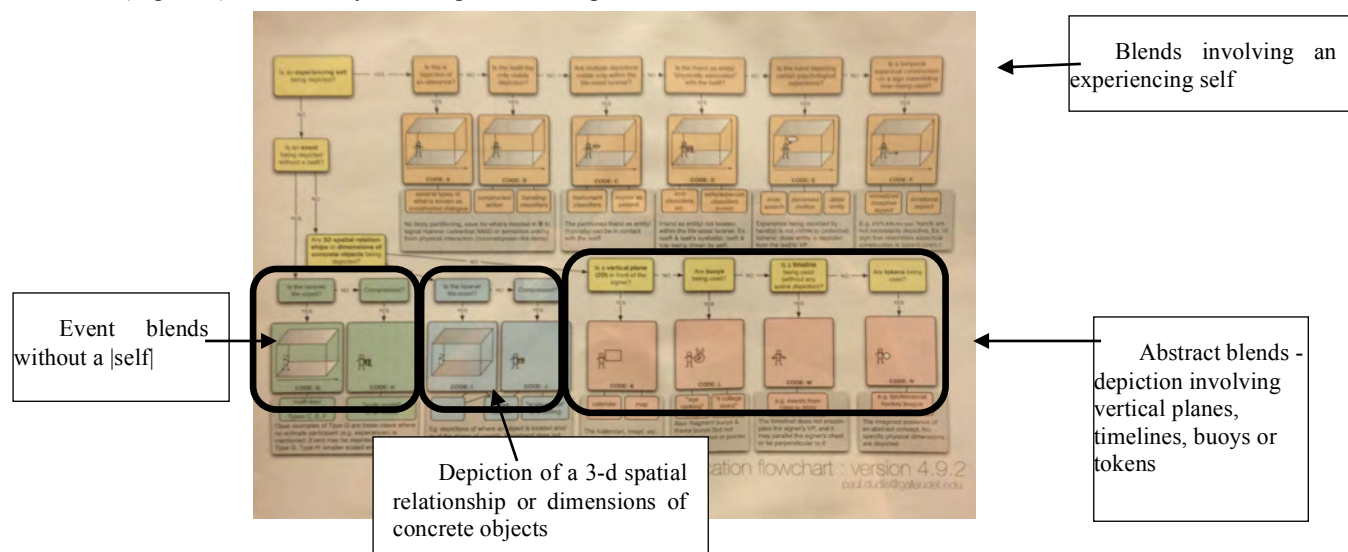


Figure 1: Depiction identification flowchart: version 4.9.2 (currently being revised) (Dudis, personal communication, August 2014)⁵⁰.

There are a number of specific types of depiction shown in this flowchart: blends involving an experiencing self (upper half of the chart), event depiction (lower left of the chart), setting depiction (lower center of the chart), and abstract depiction (lower right corner of the chart). In the flowchart above, depiction types are organized based on a series of questions which consider whether or not there is a visible [subject] in the depiction, whether the signer depicts a place or event, or whether timelines, buoys, tokens or vertical planes are utilized by the signer.

Depiction in Language Use

ASL requires the use of depiction. Using depiction, language users may provide information about things that are not physically present. When signers depict, they may use different parts of their bodies or various locations in their signing space to represent aspects of a variety of entities, events, and non-visible concepts (e.g., lists, objects, actions of others, goals, motivation); depiction allows signers to show elements of what an entity or event is like, what it looks like, or even what it acts like. Within the major categories discussed above, there are options for depiction including directing signs at locations in space, varying levels of iconicity, and varying degrees of metaphoric language use.

Depicting verbs, identified and analyzed by Liddell (2003), are often used when signers provide a representation of their conceptualization of entities, settings, or events. Liddell found that depicting verbs require the signer to depict elements of their meaning (2003). Three categories of depicting verbs are those “signifying the presence of an entity at a place,” those that “signify the shape and extent of a surface or the extent of a linear arrangement of individual

⁵⁰ This chart is currently being revised however this is the version used for the identification of depiction in this study.

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entities,” and those that “signify movements or actions” (Liddell, 2003, p. 262). When one of these verbs is utilized in discourse, this is, by definition, an instance of depiction.

Directing signs

In addition to depicting elements, signers can direct signs (indicating verbs and pronominals) toward locations in their signing space. An example of a signer directing signs toward things that are not physically present (Liddell, 2003). Liddell (2003) defines surrogates as blended mental spaces in which the signer or a location in signing space “become someone or something else” (p. 152). As signers conceptualize a situation or something they want to talk about, they may depict it using surrogate blends.

There are two categories of directing signs according to Liddell (2003). These two categories are locative signs, which have a “lexical requirement to be directed toward a location”, and signs that are “produced in non-pointing citation forms” (Liddell, 2003, p. 176). An example of this would be if the signer produces the sign DIFFERENT+++ in the vertical plane ahead of him (see Figure 2 for an example).

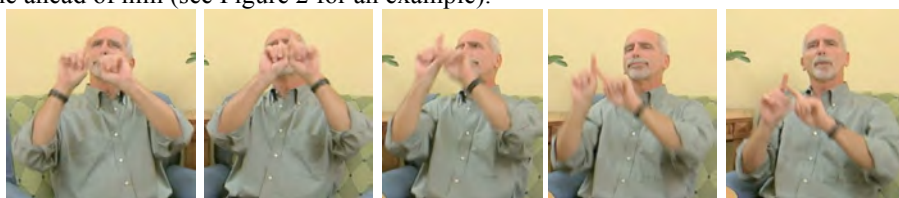


Figure 2: Lexical sign meaningfully directed on a vertical plane |map| (DIFFERENT+++)

By directing signs toward different locations in space, the signer is able to provide semantic information about things that are not physically present. The signer in the example in Figure 2 produces the sign DIFFERENT on a |map| of Europe as he comments on the fact that different languages are used throughout Europe.

Metaphor and iconicity

Other categories of signs that are depictive include signs that resemble their objects in some respects (iconicity) and signs that are metaphoric (Dudis, personal communication, May 2014). Mandel (1977) defines iconicity as “the existence of a perceived visual relationship between the gesture and the referent” (p. 62). He uses the term ‘gesture’ to mean “any motion of the body, or of a part of the body, that is used meaningfully in ASL discourse” (Mandel, 1977, p. 58). This term encompasses not only lexical items that are iconic signs, but also movements that represent a person or activity as well as spatial relationships.

Metaphors in signed languages provide a means of understanding abstract or difficult concepts. Many abstract concepts are represented by a visual image of a concrete entity or event (Taub, 2001). According to Taub (2001,) conceptual metaphors involve “the consistent use of one basic conceptual area to describe another, perhaps less self-evident area” (p. 3). Dudis (forthcoming) discusses iconicity and metaphor as they relate to depiction in ASL.

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Language Proficiency

Linguists do not agree on how to define proficiency in a language. Proficiency can refer to knowledge of the language, the ability to understand the language, and the ability to use the language (Butler & Hakutu 2006). Using a language proficiency scale, which involves a certain standard for assessment, allows a comparison of the language use of individual signers. There are numerous language proficiency assessments that measure different aspects and types of language proficiency. The assessment will not determine the performance level of all features of a language, and those who use language proficiency scales must keep in mind that the range of abilities of language users varies, even if they are native language users.

For this project, we used the ASL Proficiency Interview (ASLPI), which requires an interview designed to determine ASL proficiency. According to Gallaudet University's ASL Diagnostic and Evaluation Services (ASLDES) website:

The American Sign Language Proficiency Interview (ASLPI) is a holistic language evaluation used to determine global ASL proficiency. The basic precept in this type of evaluation is to find out through a face-to-face interview what an individual can do with the target language at a given point in time. The ASLPI is a 20-30 minute video recorded interactive dialogue between the examinee and the interviewer. (<http://www.gallaudet.edu/asldes.html>)

The ASL-DES website provides information about each of the various proficiency levels identified by their assessment.

ASLPI proficiency levels

Below is a brief overview, taken from the ASL-DES website, of what signers at various levels of proficiency are able to demonstrate in the ASLPI.

Gallaudet University, received the rights to the ASLPI in 2008. The ASLDES website provides information about the reliability and validity of the ASLPI as well as charts showing the number of people who have taken the ASLPI since 2007 and the distribution of ASL proficiency levels from the Fall of 2011 through the Summer of 2013 (see Figures 3 and 4).

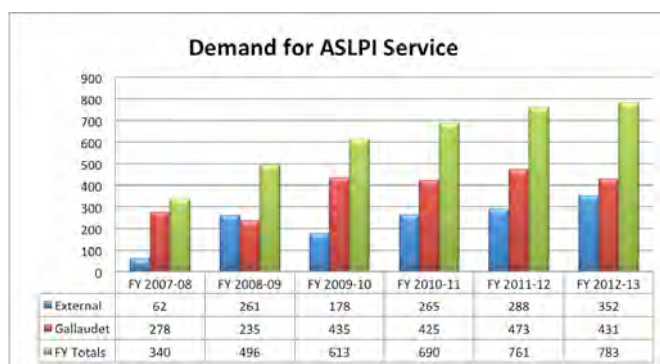


Figure 3: Number of individuals who took the ASLPI between 2007 and 2013
(ASL Diagnostic and Evaluation Services) website: https://www.gallaudet.edu/asldes/aslpi/aslpi_research.html

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Figure 3 shows the number of individuals who completed the ASLPI interview between 2007 and 2013. Figure 4 below shows the distribution of proficiency levels during that time period.

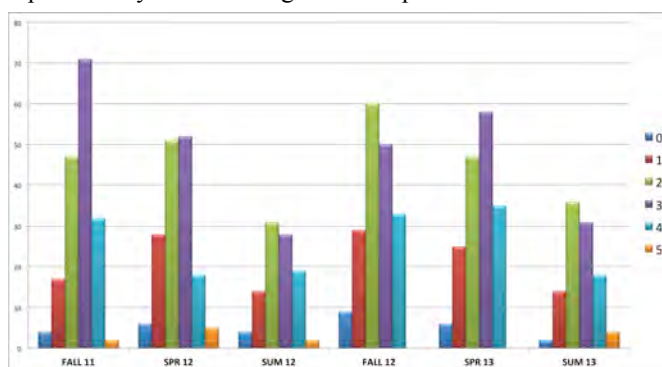


Figure 4: Nationwide Distribution of Proficiency Levels (ASL Diagnostic and Evaluation Services) website: https://www.gallaudet.edu/asldes/aslpi/aslpi_research.html

These charts provide an overview of the numbers of individuals who have the ASLPI and the number of individuals assessed at each level.

The figure below provides excerpts from the information provided by the ASL-DES website on proficiency levels 0+ - 5. Note that the explanations provided by ASL Diagnostic and Evaluation Services do not include specific details about differences in the use of depiction. See Figure 5 below.

Proficiency Level 5	“Signers at the proficiency level of 5 are able to communicate with accuracy and fluency on a wide variety of topics, both formal and informal and from concrete and abstract perspectives... They demonstrate no pattern of error in the use of basic structures, although they may make sporadic errors, particularly in low-frequency structures and in complex high-frequency structures...”
Proficiency Level 4+	“Such discourse, while coherent, may be influenced by language patterns other than those of the target language. Even with this influence, they are consistently able to demonstrate all of the linguistic features required for high level proficiency...”
Proficiency Level 4	“Although they command a good number of grammatical features, they are deficient in some areas such as cohesion, non-manual signals (NMS), and depiction. They are able to present information with sufficient accuracy, clarity, and vocabulary selection to convey intended meaning without misrepresentation or confusion...”
Proficiency Level 3+	“When they attempt to perform tasks at the next proficiency level, they exhibit features of breakdown, such as shorter paragraph-level discourse, errors with mapping, cohesion, affect and non-manual signals (NMS) and incorporation of English mouthing... Despite noticeable imperfections, they are able to present broad vocabulary with sufficient accuracy and

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	clarity...”
Proficiency Level 3	“Signers at this proficiency level are able to express language with sufficient structural accuracy and vocabulary to participate in most familiar and unfamiliar topics about practical, social, and professional situations... Their language contains pauses and self-corrections as they search for adequate vocabulary and language forms.”
Proficiency Level 2+	“Signers at this proficiency level demonstrate less structural accuracy and vocabulary to participate in familiar and unfamiliar topics. When they attempt to perform tasks at the next proficiency level, they exhibit breakdown in the demonstration of language features, such as a reduction in depth, breadth and accuracy of vocabulary, affect, and non-manual signals (NMS)...”
Proficiency Level 2	“Sentences are discrete and are influenced by language patterns other than those of the target language with noticeable errors, ranging from occasional to considerable, affecting clarity...”
Proficiency Level 1+	“Signers at this proficiency level are able to express personal meaning by combining and recombining what they know and what they receive from the interviewer. ... While attempting to convey the message, their responses are filled with hesitancy and inaccuracies as they search for accurate linguistic forms and vocabulary...”
Proficiency Level 1	“Signers at this proficiency level are able to manage a number of uncomplicated communicative tasks in straightforward practical situations. ... Limited vocabulary is apparent and memorized phrases at the elementary level are demonstrated (e.g., routine travel needs, minimum courtesy requirements, work, school, pets, hobbies)...”
Proficiency Level 0+	“Signers at this proficiency level ... demonstrate limited communicative exchanges with short phrases and/or non-target language sentences with memorized vocabulary, and topics are limited to survival needs (e.g., work, school, pets, hobbies). They attempt to recombine known vocabulary or incorporate vocabulary used by the interviewer...”

Figure 5: ASLPI Proficiency levels 0 – 5
 (https://www.gallaudet.edu/asldes/aslpi/aslpi_proficiency_levels.html)

The figure above provides excerpts from the descriptions of some of the features in the language use by signers at each proficiency level as assessed in the ASLPI. The dimensions assessed by the ASLPI include grammar, vocabulary, fluency, production/accent and comprehension. Each level provides a description of the features typically seen in the language use of signers assessed at that level, but only one (level 4) actually uses the term depiction.

Looking Forward

The preliminary analysis of this study shows that depiction is used by signers rated at each level of proficiency of the ASLPI. The evidence of depiction produced by signers assessed at level 0 and level 1 appears to involve specific constructions learned in beginning ASL classes such as use of classifiers (depicting verbs) and use of role shifting.

Based on the information collected from this pilot project, ASL educators and interpreter educators should be able to develop a better understanding of the use of depiction which will aid in instruction and mentoring of second language learners of ASL. Eventually, the results of this study may lead to the development of new curriculum and assessments related to depiction in language use.

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