Research Summary Paper 1: The Impact of Sign Language Interpreter Skill on Educational Outcomes in K-12 Settings

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In compliance with the Individuals With Disabilities Act (IDEA) of 2004, educational interpreters are considered related service personnel to provide a free appropriate public education to children with disabilities within the US. Therefore, the responsibility to secure a competent and qualified interpreter to provide a deaf child access to an equal education is placed on states regarding the education, training, testing, and hiring of educational interpreters. However, the lack of consistency in each state's requirements for an educational interpreter inexplicably places deaf students at risk.

The Educational Interpreter Performance Assessment (EIPA) is the nation's primary evaluation of an interpreter's skill sets and abilities. The test allows educational interpreters to interpret elementary or secondary-level material in a target language of their choice, PSE, MCE, or ASL. Upon taking the test, interpreting skill sets and proficiencies will be evaluated to provide educational interpreters with an average score from 0-5, 0 being the production of no correctly applied competencies and 5 being a mastery educational interpreting demonstration. It has been determined that with an EIPA score of 3.0, 60-70% of the information present in the source language is conveyed by the interpreter; however, significant deficits exist in terms of prosodic, pragmatic, and discourse-level information (Cates & Delkamiller 2021). Although the National Association of Interpreters in Education recommends that educational interpreters have a minimum score of 4.0, on average, only ⅓ of interpreters who take the EIPA score 3.5 or higher, but less than 20% score a 4.0 (Cates & Delkamiller 2021). State requirements for educational interpreters vary from no national exam to an EIPA score 4.0. This is compounded by the fact that nearly 50% of interpreting program graduates work in schools full-time, with 30% of

interpreter program graduates beginning immediately after graduation, despite those with a bachelor's degree averaging two years before achieving national certification after graduation and three years for those with an associate degree (Cates & Delkamiller 2021). To amplify the threat further, educational interpreters with minor educational interpreter skills and the lowest EIPA scores often work in primary school settings with the most vulnerable students, young children without fully developed language skills (Cates & Delkamiller 2021). Therefore, even though most will interpret in K-12 settings in their careers, it is evident that interpreter programs are not effectively preparing interpreters to function in educational settings or solidifying it's differentiating fundamentals. This disparity in adequate qualification of educational interpreters ultimately victimizes deaf students and prevents them from a free and appropriate public education.

Intentions

Despite referring to the EIPA to establish minimum standards for educational interpreters, it is challenging to attribute students' learning solely to the interpreter's skill level as it is fundamentally impossible for educational interpreters to serve as the sole educational resource for deaf children in schools. Inconsistent and unpredictable access to spoken language, visual materials, peer support, hands-on learning activities, etc., and variation in literacy and cognitive capabilities prevent educational interpreting skills from impacting any two students similarly (Cates & Delkamiller 2021). However, previous studies have established that most students succeed best in environments with direct ASL instruction unless their instructors have experience teaching deaf students and have highly qualified educational interpreters (Cates & Delkamiller 2021). These studies have been conducted using nationally certified sign language interpreters, many of whom learned ASL as their first language, and were assessed in the learning of deaf

university students. Therefore, the results of these studies are not entirely applicable as not only do the interpreters involved represent the highest skill level rather than an accurate reflection of the average educational interpreter, but deaf university students are also not a representative sample of the deaf education system. Cates attempts to improve the applicability of previous study results by conducting her studies in a K-12 setting using interpreters with skill sets more attuned to the general population of educational interpreters.

Construction of Methods

To conduct this study, six middle and high school students, three female and three male, were selected from a state school for the deaf as participants. All possessed at least 5 years of sign language experience and utilized an assistive hearing device. The students were subject to data collection under consistent learning conditions: "a lecture in English with an educational interpreter who achieved an EIPA score of 4.0 within 12 months prior to data collection, a lecture in English with an educational interpreter who achieved an EIPA score of 3.0 within 12 months prior to data collection, a lecture in ASL from a credentialed teacher of the deaf, and a lecture from a credentialed teacher of the deaf who used Simultaneous Communication" (Cates & Delkamiller 2021). Both interpreters involved in the study were full-time K-12 educational interpreters. At the same time, both instructors were recruited from the same school for the deaf as the six students and are representative samples of most teachers of the deaf with ASL being their second language. Once the participants were established, students were subject to a 10-question pre-test on four topics at a fifth-grade physical science level. Instructors were given lesson plans for their randomly assigned physical science topic, four states of matter, circuits, types of energy, or conduction. Each instructor presented their lesson, followed by a 10-question post-test for students. Although the pre and post-test questions for each topic were not identical,

similar information and knowledge application were required. Learning was assessed by comparing the scores of each student's pre and post-test. It was determined that, "If a student scored incorrectly on the pre-test but correctly on the post-test for a paired item, it was considered learning. Each student was then compared with themselves across conditions to assess the impact of service delivery on their learning"(Cates & Delkamiller 2021).

Results:

Analyzing raw and learning scores determined that students learned best under direct instruction in ASL, followed closely by instruction using an education interpreter with an EIPA 4.0, and then through SimCom (Cates & Delkamiller 2021). Data collected from the study demonstrates this observation as, "post-test scores increased for ¾ students present for direct ASL instruction, ⅜ students present for instruction using an educational interpreter with an EIPA 4.0 increased, and ⅛ present for SimCom instruction. Post-test scores did not improve for a single student present for instruction using an educational interpreter with an EIPA 3.0. All four students showed a decrease in learning scores" (Cates & Delkamiller 2021).

Discussion:

Although efforts were made to establish consistency within the research study, such as comparing each student against themselves across conditions rather than to the results of other students and providing each teacher with lesson plans before the observed presentation, several identified areas may be improved to increase the applicability of the results. For example, due to the sample size of this study being just six students, it is essential to repeat the experiment in a larger, more diverse group of students. Additionally, the test questions could be provided in sign language to remove any potential bias due to a student's reading comprehension skills. This would eliminate language or literacy barriers preventing the study's results from accurately

representing improved learning through different instructional models. This study must also be repeated using an educational interpreter with an EIPA score of 3.5 to assess the accessibility of learning for a deaf student, as many states require this score from educational interpreters within the US. Despite the potential to improve the generalization of results, this study indicates that deaf students learn best through direct instruction in ASL from a licensed teacher of the deaf, filled by the use of an educational interpreter with an EIPA score of 4.0. Similarly, it is also evident that interpreters with an EIPA score of 3.0 indisputably threaten a deaf student's education and should not be permitted to work in K-12 settings.

Conclusion:

This study is groundbreaking in that it exemplifies that, without a doubt, the learning potential of a deaf student is directly dependent on the interpreter's skill level. It also demonstrates the accuracy of the EIPA's score assignment concerning the skills of an educational interpreter. It is evident that except for receiving direct ASL instruction, using interpreters with a score of 4.0 or above provides a deaf student with the best opportunity to learn. Therefore, educational interpreters without an EIPA score of 4.0 should be barred from working in K-12 settings as they actively jeopardize deaf education. Unfortunately, this regulation is complex for states to enforce as they must navigate between the commitment to provide qualified interpreters and access to enough qualified interpreters to sustain the needs of their education system. However, the results of this study effectively argue that providing an unqualified interpreter provides little to no more access to a deaf student than not providing an interpreter at all. Both occurrences are harmful and systematic failures for deaf students that must be resolved to ensure a free, appropriate education as mandated by the IDEA.

References

Cates, D., & Delkamiller, J. (2021). The Impact of Sign Language Interpreter Skill on Education Outcomes in K–12 Settings. In E. A. Winston & S. B. Fitzmaurice (Eds.), Advances in Educational Interpreting (pp. 19–30). Gallaudet University Press. https://doi.org/10.2307/j.ctv2rh287v.5Elizabeth A. Winston, & Stephen B. Fitzmaurice. (2021). *Advances in Educational Interpreting*. Gallaudet University Press.