March 8, 2016
Re: Testimony in support of SB444

Dear Education Committee members,

I urge you to support SB 444. I am a product of the preK-12 deaf education system in Kansas. I also work closely with internationally renowned scientists who are conducting research on neuroscience and ASL-English bilingualism. Thus, I am uniquely positioned to speak as a native Kansan and as someone who knows this topic very well from personal and professional stances.

You may hear emotional testimony and debate about which modality or method of teaching deaf children language is best, but I'm here to tell you that is not the issue here today. The issue is that we have a problem. We don't know how well deaf children in Kansas are meeting language milestones, and we don't know what works, because we don't have enough data or data gathered using accurate and appropriate methods. An assessment program has the potential to advance the linguistic, educational, social, emotional, and economic well being of all deaf children here.

First, a bit about myself. As a profoundly deaf bilingual child, I went to preschool through 12th grade in the Shawnee Mission School District. With access to visual communication through teachers who signed and interpreters — as well as auditory and speech therapy — while fully included in the mainstream, I surpassed age-appropriate milestones. I graduated from Shawnee Mission East High School in 2001 with a 4.6 GPA, as a Kansas Honor Scholar, AP Scholar, and National Merit Scholar. I hold bachelor's degrees in English and Journalism from the University of Kansas and a master's in Literature from American University in D.C. I now work as manager of communications for an international behavioral and neuroscience research center in Washington, D.C.

I am one of a lucky few. I entered preschool with a critical advantage. I had hearing parents who learned to sign after they found out I was deaf. This, despite their first meeting with an audiologist who told them I'd never read beyond a third-grade level, especially if they signed with me, and that I should not be exposed to Deaf people or American Sign Language. Fortunately, my parents refused to listen.

Because my parents signed and exposed me to Deaf signers, they could observe and *informally* evaluate my full language abilities, in sign and English. However, in the absence of a statewide bilingual assessment program, my parents could not fulfill the function of skilled, trained, professional ASL language evaluators. They had no way to know whether I was hitting the appropriate ASL milestones, or what these milestones should be. They knew that I could communicate because I was talking their ears off and signing their eyes out. Beyond that, it was all guesswork. They gave me access to both languages and hoped for the best. Today's parents deserve better than that.

As I said, I was lucky. Many of my deaf peers, with varying levels of hearing loss, came from families that did not use sign language or communicate with their deaf child. A majority of them entered school with significant language and socio-emotional delays that their parents and medical professionals could not or did not detect. If a pre-K assessment program had been in

place, their delays could have been identified and effective language exposure and intervention services provided from infancy, *before* they entered the classroom. This lack impacted their academic outcomes and employment prospects. Today, they, and many deaf students who came after them, struggle with low literacy and educational achievement, unemployment or entrapment in low-level jobs, and dependence on disability checks and other social services. They were capable of so much more, if their language delays were caught and addressed early. In the face of these outcomes and decades of research showing the terrible consequences of delayed language exposure and acquisition, it is inconceivable that there is still no early statewide assessment program to catch these delays before starting school.

I have a wide social and professional network and frequently hear firsthand "horror stories" from teachers and interpreters, including in Kansas, about deaf children with severe language and emotional-social delays. These professionals are frustrated that they can't openly discuss these problems or recommend solutions based on statistical data and knowledge of the benefits of visual, bilingual communication, as supported by scientific research. They share their anecdotes confidentially because of fear of retaliation from school officials and people who oppose visual communication or bilingual education because they think it harms English language acquisition and should not be used with cochlear implants. This thinking is wrong and outdated. Scientific research is showing the opposite (see addendum). However, there is no assessment data specific to Kansas's deaf children, or bilingual assessments tailored to their unique needs, or, for decades up until today, fair representation at the table for deaf people and educators trained and skilled in ASL and bilingualism. Thus, the debate continues about how best to prevent or minimize these language delays continues and deaf children still arrive at school unprepared to learn on pace with their hearing peers.

Kansas needs an assessment program and tracking system that uses scientifically verified tools based on age-appropriate, standardized milestones in American Sign Language and English, inclusive of its visual modalities — rather than assessments designed for children with normal hearing levels or based on the misconception that ASL is just another sign system. It is not. ASL is a language in its own right and thus phonologically and linguistically distinct from sign systems based on English. It cannot be assessed in the same way or using the same tests or by people who are not trained and skilled in ASL. A bilingual assessment program enables accurate measurement of language development in either or *both* languages. It enables identification of delays, whether intervention is needed, and the best strategies to support language and reading acquisition. It also will enable researchers and educators to document and statistically quantify effective approaches and apply that data to improving Kansas's early intervention and deaf education systems.

Please enable the state to assess, track, and ensure young deaf children's readiness for school so they do not enter kindergarten with significant language delays, which can result in them "playing catch up" for the rest of their education. You have the opportunity to make Kansas a national leader in improving deaf children's readiness for school and educational outcomes by passing SB 444. I urge the Kansas Senate to capitalize on that opportunity. Thank you for your consideration.

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Addendum

Scientific research resources on bilingualism and assessments

The National Science Foundation's Science of Learning Center on Visual Language and Visual Learning, VL2, in Washington, D.C., is an international behavioral and neuroscience research center composed of 70 researchers, 22 labs, 30 centers and universities, and 143 schools. The Center focuses on visual language, early language acquisition, and reading and literacy, particularly involving deaf children of various hearing levels, and serves as a national and international resource.

According to findings by scientists and researchers at and affiliated with VL2, the use of language assessment systems for deaf children is a vital necessity. Lack of clear language exposure and communication in the critical early years can leave lasting adverse neurological impacts, identifiable in brain scans. Resulting language delays cause detrimental effects on reading, academic, social, and employment outcomes throughout the child's lifespan.

Conversely, VL2 findings show that *early* exposure to visual language confers significant, lasting benefits on the young deaf child, regardless of whether the child has a cochlear implant or not. This exposure leads to structural brain changes and cognitive processing advantages, including enhanced visual attention, higher cognitive and socio-emotional self-regulation abilities, language and reading advantages, and greater executive function abilities.

Findings also show that early visual language *supports* the development of spoken language. Language, not speech, is of paramount importance for babies to hit milestones and have normal brain and cognitive development. It is critical here to understand that American Sign Language is a distinct language, with its own phonology, syntax, grammar, and use of spatialization. Thus, it is not the same as other sign systems and visual modalities of English, such as Signed Exact English, Conceptually Accurate Signed English, or Cued Speech. A child who uses spoken, written, and signed/cued English is monolingual, while a child who uses English and ASL is a true bilingual.

With early bilingual exposure that includes a visual language, children:

- Have a larger vocabulary size at a younger age;
- Use more English words in their writing than deaf students with lower ASL proficiency;
- Are more prepared for school because of incidental knowledge and vocabulary;
- Are ready to write letters of the alphabet earlier because of early fingerspelling experience that bridges ASL and English;
- Sometimes read faster and more accurately than their hearing classmates.

This research shows that e*arly* bilingual language exposure is a biological necessity for young deaf children, since it ensures full access to language, development of language through normal milestones, and cognitive development of the language center in the brain,

which in turn leads to greater readiness to learn. These findings are backed by more than 100 papers and research briefs[1] on bilingualism and language development in deaf children produced by researchers affiliated or connected with VL2.[2]

The VL2 Data Sharing project[3] includes a longitudinal study on language, cognitive, and literacy outcomes in young deaf children as well as a visual communication and sign language checklist developed from the data gathered through the longitudinal study.

The use of standardized developmental checklists to monitor a child's progress in K-12 settings is a long-established practice in education. However, according to VL2 researchers,[4] the use of assessments designed for monolingual (English-speaking) children to assess deaf children does not adequately measure their language abilities. Classroom teachers, specialists, and early interventionists often attempt to document visual language development by adapting existing assessments designed for spoken language. This produces invalid results that suggest deaf children are "within the range of typically developing children" when young; these children frequently fall precipitously behind after reaching school age. This lack of appropriate assessment tools leaves deaf children and their parents and educators at a significant disadvantage in measuring age-appropriate language development and readiness for school. However, in recent years, standardized checklists based on reliable, accurate scientific data have become available to clearly document the developmental milestones of deaf children from birth to age 5 who are visual learners.

VL2's website, vl2.gallaudet.edu, and its Parent Information Package, vl2parentspackage.org, offer many papers, studies, and resources that are relevant to SB 444.

** The opinions expressed in this testimonial are the author's alone and do not reflect the opinions of VL2, Gallaudet University, or the National Science Foundation.*

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[1] http://vl2.gallaudet.edu/research/research-briefs/

[2] http://vl2.gallaudet.edu/research/center-papers/

[3] http://vl2.gallaudet.edu/research/vl2-data-sharing-project/

[4] Simms, Laurene; Sharon Baker; and M. Diane Clark. "The Standardized Visual Communication and Sign Language Checklist for Signing Children." *Sign Language Studies*, 14:1, Fall 2013, pp. 101-124.