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A Transition to Multimodal Multilingual Practice: From SimCom to Translanguaging

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Abstract: Historically, the field of deaf education has revolved around language planning discourse, but little research has been conducted on Deaf and Hard of Hearing (DHH) students with additional disabilities as dynamic multilingual and multimodal language users. The current study focuses on the language planning process at a school serving DHH and Deaf-Blind students with varied additional disabilities. A previous Total Communication philosophy at the school was implemented in practice as Simultaneous Communication (SimCom) and later revised as a multimodal-multilingual approach with the goal of separating American Sign Language (ASL) and English and using multimodal communication such as tactile ASL and Augmentative and Alternative Communication (AAC). To implement this philosophy without reverting back to SimCom, the school employed a language planning process using action research to reflect on cycles of improvement. A grounded theory approach was used to identify and analyze themes over a three-year period of language planning and professional development in multimodal communication. Triangulated data includes language planning artifacts and an online survey of staff perceptions—analyzed by coding concepts and categories, relating concepts to define translanguaging mechanisms and attitudes, and developing an overarching theory on how a school values translanguaging after 3 years of valuing complete access to language. In the context of a multilingual, multimodal language planning cycle, developing a shared language ideology guided by how Deaf, DeafBlind, and Deaf-Disabled (DDBDD) people use language emerged as an overarching theme that promoted dynamic languaging and understanding of strategies for effective communication.

Keywords: translanguaging; deaf; deaf-blind; language planning; AAC



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1. Theoretical Background

Language planning has been fundamental to deaf education, historically through the present day. While a human rights framework in language planning discourse has provided Deaf and Hard of Hearing (DHH) adults with strategic direction in advocating for their needs (Murray 2015), the prevalence of auditory-oral education and rise of pediatric cochlear implants continue the trend to exclude sign languages and minimize d/Deaf acculturation among DHH children (Dammeyer and Ohna 2021). This concern is affirmed by Murray and others who stress the need for sign language and Deaf culture, sometimes referencing the trend for DHH people to eventually acquire sign language later in life (Murray 2015; Snoddon and Underwood 2017). Some have suggested that depriving DHH people of sign language at any point in their lives is a human rights violation (Murray 2015), while also calling for more attention to the existence of intersectionality in DHH people and the importance of recognizing diverse social and linguistic needs (Murray et al. 2020).

In an essay on the need for a more flexible understanding of language that emerges directly from people with disabilities, Deaf scholars Jon Henner and Octavian Robinson suggest that the language, the body, and the environment are interactive conditions that cannot be isolated from one another. Pushing for greater respect for people with disabilities,

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they suggest that disability itself shapes the way that people access and use language in meaningful ways outside of auditory speech and that this diversity in language use should be considered within an equitable and empowered framework as opposed to a deficiency-oriented framework. The framework they offer, Crip Linguistics, recognizes that languaging is multi-modal, that all language users have agency, and that diverse ways of languaging should be accepted and celebrated (Henner and Robinson 2021). Wei (2018) offered an earlier definition of languaging as a multisensory and multimodal system that has identifiable yet inseparable cognitive systems, also pushing for a reconceptualization of languaging and languaging spaces.

2. Translanguaging

In recent years, parallel to the influence of foreign language pedagogy on nineteenth-century deaf education, a concept from hearing multilingual instruction has entered language acquisition planning processes in deaf education. Translanguaging, often credited to Colin Baker's English translation of Welsh educator Cen Williams's 1994 term "trawsieithu", rejects the idea that multilingualism entails discrete systems for each named language (García and Kleifgen 2019). Rather, multilinguals have a complex and dynamic language repertoire from which they can select flexibly and which promotes the development of multilingual communication, literacy, and identity (García and Kleifgen 2019). Translanguaging represents the agency of the individual in their own self-expression and linguistic self-presentation. It is also a fundamentally political, decolonial, and social justice-oriented act (García and Kleifgen 2019); whereas traditional American bilingual education for hearing students often treats students' home language as a tool to learn English, translanguaging approaches value each student's languaging holistically.

García and Kleifgen (2019) present a strong theoretical and practical overview of translanguaging in the classroom; they note that translanguaging pedagogy entails giving students the freedom to "do literacy" (p. 9) in individualized ways, even as teachers can employ particular strategies to prompt engagement. When teachers adopt a translanguaging stance, creating space for students to learn as their whole selves, multilingual learners can grow in both academic and social-emotional contexts (García and Kleifgen 2019). Additionally, García and Cole (2014) describe the ways in which exploring (hearing) translanguaging theory from a Deaf perspective was instrumental in shaping several core concepts, such as the relationship between languaging and identity, the fluidity of language modalities, and the concept of dynamic bilingualism. Even before translanguaging gained traction in the deaf education field, DHH ways of languaging were becoming fundamental to broader theory and pedagogy.

3. Translanguaging and Deaf Education

Translanguaging was first codified in relation to only named spoken/written languages. When one or more of those languages is signed, translanguaging entails "often switch[ing] between modalities and combin[ing] them", a definition that encompasses a wide range of practices, including simultaneously blending different named languages/modes, using gesture, and using objects or multimedia (Kusters 2017, p. 2). As Swanwick (2015) notes, translanguaging is already occurring within deaf education classrooms and within the lives of DHH students; what is missing is the accompanying language planning. Swanick suggests that there is work to be carried out on reconciling the language and terminology used to talk about DHH children's fluid and dynamic use of sign and spoken languages. Another issue specific to DHH bilinguals is the existence of sensory asymmetries, which are often not noted in translanguaging theory and research. (Kusters 2017).

In a case study of five students who used a mix of spoken and written English, British Sign Language, and Signed Exact English, Swanwick et al. (2016) found that students used code switching to change between languages and also between methods of using different varieties of multiple languages. Through interviews and observations, the study

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developed individual language profiles that illustrated the toolkits used by each individual. All students switched and blended sign, spoken, and written language to make themselves understood, accommodate mixed audiences, and respond to the differing fluencies and preferences of others. Swanick ends by suggesting that practitioners have a major role to play in growing the knowledge base and acting on these understandings in the classroom (Swanwick et al. 2016).

Sign-Supported Speech (SSS) or Simultaneous Communication (SimCom) is a form of language blending unique to sign languages, as it allows for languages to be spoken and signed at the same time. This method of communication supports access to auditory language by supplementing auditory gaps with visual communication (Swanwick 2017). Knoors and Marschark (2012) advocate for the use of SSS/SimCom to supplement auditory input, referencing the increase in cochlear implantation and spoken language methodologies. De Meulder et al. (2019) address several issues in the use of language blending and language separation. Total Communication, a philosophy of utilizing "whatever works best" in a variety of modalities, has traditionally been English-dominant and was developed with signing as a supplement rather than a distinct language such as American Sign Language (ASL). The bilingual-bicultural philosophy, however, emphasized language separation and boundary maintenance. The issue of sensory access in SSS/SimCom use and Total Communication approaches remains a central point, whether there is concern about it being compromised through auditory focus, or a tendency to gradually diminish the use of signs (De Meulder et al. 2019).

De Meulder et al. (2019) discuss the politics and practices of translanguaging in a deeper analysis of the conflict between language separation and the dynamic bilingualism of deaf signers. Total Communication has been implemented as an English-dominant language framework that favored modalities structured to support auditory input. Some aspects of translanguaging mirror the premise of Total Communication, which is to use whatever methods may benefit deaf children. Language separation remains a point of contention, as minority languages represent cultural and linguistic resources that need to be protected and promoted. There is ongoing concern about the vitality of sign languages in the context of diminishing schools for the deaf, increased medical interventions, and a focus on exclusive spoken language acquisition. Translanguaging studies must also contend with the social and political inequities in deaf education and recognize the sensory access and orientation of DHH people (De Meulder et al. 2019).

Palmer et al. (2014) analyze the issue of language separation in bilingual education and a translingual framework. Within bilingual education, the notion of language separation was developed to protect and nurture minority language skills by designating time and space for communication in one specific language only. As the prevalence and dominance of English make bilingualism difficult, this is a strong concern. Within language separation, however, there is a concern that there is little space for dynamic language use and a need to provide teachers with more guidance and support for dynamic bilingualism. They posit that the separation of languages can prevent comfortable and dynamic translanguaging, a skill that must be normalized to develop authentically bilingual students. To develop guidelines for translanguaging instructional strategies, the authors refer to a language ecology framework where heritage bilingual speakers are positioned as multilingually competent, thus increasing the status of the languages they bring to the classroom. Strategies noted within a case study of heritage teachers included modeling dynamic bilingualism, positioning children as competent bilinguals, and drawing attention to moments of overlap and explicitly noted patterns and linguistic features, celebrating these moments (Palmer et al. 2014).

Little other research has explored translanguaging in practice in deaf education class-rooms. Andrews et al. (2017) present a translanguaging framework through shared book reading, correlating deaf reading strategies and translanguaging with literacy improvements. Although not a focus of the researchers, the study included some students with additional disabilities, who also made gains. Additionally, while not a direct study of

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translanguaging teaching strategies, Hoffman et al. (2017) observe that bilingual DHH adult readers use translanguaging approaches to engage with English texts and conclude that translanguaging could be a valuable framework for English literacy development for DHH children.

Language planning research and policy in American deaf education tend to take for granted that DHH students can communicate both receptively and expressively through ASL, spoken English, or both. However, this assumption is not true for all DHH students, particularly DeafBlind students and deaf students with multiple disabilities, such as autism, cerebral palsy, or intellectual disability. For DeafBlind students, multilingual multimodal approaches include tactile ASL, drawing, writing, tangible symbols and objects, large print, and Braille as part of intentional instructional strategies to foster language and literacy development. Utilizing multimodal and multilingual approaches as part of shared reading is considered valuable by professionals who work with DeafBlind students (Brum and Bruce 2022).

For students who do not communicate expressively through either signing or speech, AAC systems and tools may enable them to express themselves. AAC use has longstanding precedence in the special education system and among the disability community, but research on AAC in deaf education is burgeoning. AAC encompasses a range of approaches, including Picture Exchange Communication Systems (PECS), drawings, tangible symbols or artifacts, simple voice output devices, iPad apps such as Proloquo2Go, and many more (Nelson and Bruce 2019). Little research has investigated the effectiveness of AAC on the literacy development of deaf students with disabilities such as autism and/or intellectual disabilities, but studies indicate that access to AAC increases communication for these students (Nelson and Bruce 2019) as well as those with physical disabilities such as cerebral palsy (Lanphere and Terlektsi 2023).

In a conceptual paper on multilingualism and alternative communication, Tönsing and Soto (2020) highlight the importance of language ideology as a broad-based framework for AAC use. Very few studies have been conducted on communication interventions for multilingual children. AAC is typically provided as a monolingual tool. Challenges include a lack of available systems with access to multiple languages, the exclusion of minority groups from institutions providing AAC services, and limited opportunities for multilingual education and intervention for those who use or need AAC. These issues have been studied, while the influence of language ideology on multilingual AAC practice may not have been. The authors assert that practitioners should be aware of language ideologies since they may influence practice, professional preparation, and service models.

4. Translanguaging and Teacher Education

Research on translanguaging-aligned professional development for educators of DHH students is an emerging area. However, some research exists that explores translanguaging-based in-service teacher education for multilingual hearing students. Deroo and Ponzio (2019) used discourse analysis to study the relationship between the language ideology and translanguaging stance among a small group of in-service teachers taking a graduate-level TESOL certification course. Participants identified several challenges to adopting a translanguaging stance, including the "newness and complexity" of this approach, its difference from their prior pedagogical training, and a belief that "their own monolingualism [is] in conflict" with it (Deroo and Ponzio 2019, pp. 221–22). Each of these challenges has a strong analogue in the field of deaf education—the latter with a particular relevance considering that hearing teachers are overrepresented at 87% of all teachers of DHH students (Luckner and Brittany 2017).

Deroo and Ponzio conclude that both self-reflection and collective discussion with peers focused on language ideology are powerful tools to support teachers' ability to shift their ideologies and adopt a translanguaging stance. Holdway and Hitchcock (2018) studied a group of participants in an asynchronous professional development program focused on math pedagogy for multilingual learners in Hawai'i. Using the framework of "ideological

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becoming", the authors found that many teachers did shift their language ideologies related to translanguaging over the course of the program (Holdway and Hitchcock 2018). In particular, teachers took the perspective that the "predominant English-only ideology promoted in large-scale policies is continuing to contribute to a deficit perspective of students and in fact [is] limiting their educational success" (Holdway and Hitchcock 2018, p. 69). As in a hearing multilingual context, professional development that enables teachers of DHH students to experience such "ideological becoming" around their own English and American Sign Language (ASL) language ideologies may impact the way teachers incorporate a translanguaging framework into their teaching. In an action research study on the ideological shifting process of a professional development online course series, Holdway and Hitchcock (2018) surveyed the impact of weekly discussions and readings about translanguaging on teacher perspectives of using (hearing) students' first language in the classroom. The case study of seven teachers found that teachers experienced two types of discourse: authoritative and internally persuasive. The results of the study showed that teachers increased their awareness of translanguaging, reflected on their teaching process, and had an impact on ideology. Teachers of all language proficiency levels made gains and were impacted by the course. The study concluded that professional development on multilingual pedagogy change helps build teacher confidence in what they are doing and provides a platform with which to explore relevant classroom practices. A significant takeaway from the study was that teacher participants became more aware of the importance of first language use in their teaching and the significance of promoting linguistic diversity and language ability. In addition to ideological awareness, teachers were positioned as capable of impacting the development of a transformative space for students through their awareness.

5. The Current Study

To address the critical need to expand our understanding of languaging among deaf people with disabilities, the current study is a discourse analysis of a three-year language planning process at a school serving deaf and deaf-blind students with varied additional disabilities (now referred in this study as DDBDD: Deaf/HH, DeafBlind, and DeafDisabled). The purpose of the study is to explore the impact of a multimodal communication philosophy and professional development on a school community's attitude and understanding of translanguaging in order to begin mapping out a translingual framework to guide future professional development. Using a grounded theory method, the study is framed within the etic codes of the language planning framework used by Nover (2000) and Murray (2015): status planning, acquisition planning, and corpus planning. Borrowing from a language planning theory presented by Cooper (1989), Nover outlined three thematic categories: status planning: the social, political and economic role given to one language in relation to another; acquisition planning: organized efforts to promote the learning of a language; and corpus planning: the creation, cultivation, and standardization of new linguistic forms.

The goal of a grounded theory approach is to uncover relevant conditions, determine how individuals respond to these conditions, and ascertain the consequences of their responses, mainly by triangulating varied sources to explore and seek a theoretical central phenomenon (Corbin and Strauss 1990). In this approach, an evolving theory is developed and shaped by concepts that emerge repeatedly in the data collection process. The present study focused on the themes that emerged regarding a three-year period of language planning and professional development in multimodal communication at SFDS and how these themes shaped the foundation of a translingual framework for Deaf, DeafBlind, and DeafDisabled students.

6. Recruitment

Survey participants were recruited through announcements sent via email at the collaborating school for the deaf. A description of the study and a request to participate were included in the email, along with the contact information of the primary investigator

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and the relevant Institutional Review Board. Participants were invited to participate in order to inform future professional development at the school and contribute to the body of understanding on translanguaging among DDBDD students. The email was sent to staff members every two weeks between September and October. A link to the survey was embedded within the email, and participants were instructed to click a consent button before proceeding. All responses were anonymous, and no incentives were awarded.

7. Data Collection

7.1. Professional Development Artifacts

The school's executive director submitted artifacts of language planning outlines and professional development activities during the 2019–2022 School Years. Artifacts included:

- School Language and Communication Policy
- 2019–2022 Multimodal and Multilingual Professional Development Plans
- 2021–2022 Professional Development Schedule with a Training Center from a School for the Blind
- Language and Communication Summary Spreadsheet
- Language and Communication Profile and Planning Procedures
- Sample Language and Communication Plan

7.2. Online Survey

Participants were asked to respond to a series of questions regarding their experiences with professional development activities and the school's communication philosophy by providing responses to the following questions:

- 1. Please share how your understanding of Multimodal Multilingualism has evolved over the last 3 years?
- Were there any specific Professional Development sessions, or meetings, or other training that helped you to understand the Multimodal-Multilingual communication philosophy?
- 3. Can you share examples of when you have observed:
 - Student(s) using more than one mode or language
 - Students transitioning in and out of modalities while communicating
 - Students who use different modalities in communication exchanges (i.e., PECS users communicating with iPad users, or an ASL user communicating with a Tangible Object user, etc.)
 - Other examples of code switching
- 4. Can you share examples of observing or developing communication and language lessons where one modality is used to teach another modality?

8. Limitations

The greatest limitation of the study was the small number of survey respondents (8 out of 64). The survey also did not collect any quantitative information or specific details regarding demographics, staff area of work, years of experience, hearing status, or other contextual factors that may have been useful in analyzing the conditions. The small sample size also limited the capacity to identify areas of variance. The richness of artifacts and survey responses, however, provided a significant amount of information to begin the analysis of patterns that can be further developed in future studies.

9. Data Analysis

Primarily qualitative measures were applied to code the data from the artifacts and survey responses using Corbin and Strauss's (1990) systematic model of reviewing and identifying shared themes (open coding). NVivo 12 qualitative analysis software was used to systematically identify and organize concepts, subconcepts, and properties within language planning artifacts and survey responses. Using the language planning frame-

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work presented by Cooper (1989) and Nover (2000), three categories were established under the etic codes of status planning (multilingual multimodalism), acquisition planning (translanguaging), and corpus planning (translangual framework).

Then, the themes were reviewed and categories and concepts were related to each other (axial coding) by exploring how multimodal multilingual status planning impacted staff perceptions of translanguaging, how acquisition planning facilitated the use of translanguaging mechanisms, how these mechanisms were effectively applied, and to what extent these perceptions and mechanisms resulted in foundational resources. Finally, a central connecting theme was identified (a selective category) by asking how the themes and mechanisms informed the construction of a multimodal translingual framework and developing an overarching theory on developing language values within a multilingual language planning process.

10. Results

10.1. Open Coding

Status Planning: Multimodal Multilingualism Status planning—the role given to language—was initiated during the three-year period by revising the school philosophy during the 2019–2020 school year. A previous communication philosophy was implemented in practice as Simultaneous Communication (SimCom) and revised during the first year of planning as a multilingual approach with the goal of separating ASL and English. The school now emphasizes using Multimodal and Multilingual approaches, including American Sign Language (ASL), Spoken English, Written English, Braille, and Augmentative and Alternative Communication (AAC) such as low, mid, and high-tech devices. The AAC section of the communication policy states that the aim of the multiple communication provisions is to "…equip students with an effective mode to initiate and maintain a communicative interaction with as large an audience as possible". Three concepts that emerged with the Multimodal Multilingual Status Planning Category are a shift to community-defined language use, recognition of ASL and English, and acceptance of diversity and flexibility (see Table 1).

Table 1. Characteristics of Status Planning: Multimodal Multilingualism.

Category	Concepts	Concepts Properties	
Status Planning: Respect for Multimodal Multilingualism	Shift to community-defined language use.	Deaf consultants/evaluators guiding professional development Deaf and DeafBlind individuals on board of directors Acceptance of Deaf/DeafBlind/DeafDisabled expertise Interest in additional DDBDD input and guidance Student-led communication strategies Student-generated communication Emphasis on inclusivity and accessible communication	
	Separation of ASL and English.	Recognition of ASL as a language Development and assessment of ASL skills Primary receptive/expressive language Allocation of language immersion time	
	Acceptance of diversity and multimodality.	Community art mural depicting languages and communication tools Recognition of multiple languages Recognition of multiple modalities of ASL (visual and tactile) Recognition of multiple tools and devices Integration of auditory, visual, and tactile strategies Exploration of communication through performing arts and music	

Shift to community-defined language use. A shift towards community-defined language use was evident in the language planning artifacts and reinforced by the survey respondents. With an emphasis on inclusivity and accessible communication, the school centralized the experiences and needs of DDBDD people in the environment, as evidenced by a revised

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communication policy and a re-named speech department. The school communication policy now requires that "... all employees provide that access to communication by signing whenever a deaf adult or student is present", a policy that was not in place prior to 2019. Furthermore, the Speech Department was renamed during the 2020–2021 school year to the Communication and Language Department.

The status planning process included increased acceptance of DDBDD adults' expertise. Deaf and DeafBlind individuals began to join the school Board of Directors. Deaf members started joining during the 2019–2020 school year, and in the 2021–2022 school year, a DeafBlind member joined the Board of Directors. Deaf consultants and evaluators were recruited to guide professional development. Examples of training led by Deaf individuals and groups included monthly ASL trainings and ASL workshops. In addition to individuals with disabilities presenting on their expertise, experts involved with disability communities were involved in professional development sessions and consultations. The language planning and professional development artifacts provided by the school demonstrated a heavy emphasis on community-defined language use, with indications from the survey respondents that they were interested in additional DDBDD input and guidance.

So overall, my understanding of multimodal multilingualism has grown to include different types of AAC, and that has involved a lot of listening to the experts themselves, which has benefited me as a teacher/communicator and my students as learners/communicators (Participant 5).

One respondent suggested that an awareness of diverse communication needs defined by a community also extended to students:

I've seen students who use both spoken English and ASL go between using those two languages to communicate with people who they believed communicated best in one specific way; I have watched children figure out how to gain someone's attention through visual means (waving a hand, flicking a light switch), tactile means (tapping, banging a desk or table), and auditory (vocalizing, calling out a name, crying); I have watched students watch their teachers and other staff members communicate with specific children using tactile sign, who then in turn begin to use tactile sign with their peer themselves. (Participant 5)

The realization among administrators and survey respondents was that communitydefined language use was directly related to and shed light on student-led communication strategies.

Recognition of ASL and English. Recognition of ASL as a language is emphasized in the revised communication policy, which states that ASL and English are "two different languages [which] ...should not be used simultaneously", clarifying that "...assigning a sign to each spoken word cannot work without doing damage to both languages". In addition to recognizing ASL as a distinct language and emphasizing that it should be separated from English, the school requires that each student's language and communication plan allocates immersion, a block of time dedicated to immersion in one language as an opportunity for students to experience the distinct separation of languages with clear boundaries of the modes. Multiple staff members reiterated their understanding of a need for separation.

The separation of language has always been a discussion however the addition of Deafblind Students multimodal included more than voice and sign language. The understanding of focusing on one language at a time allowing that communication to be strong has become evident. (Participant 1)

Over the last three years, I have learned that it is best practice to separate English and ASL whenever possible to ensure the integrity of both languages. (Participant 4)

Recognition of ASL was further evidenced through the development and assessment of ASL skills. A communication profile for each student asked for documentation of the students' primary expressive and receptive languages (but also allowed for the documentation of additional languages and modalities). Along with professional development in ASL and community ASL classes, multiple ASL proficiency assessments were required for

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both students and staff members. Although the separation of ASL and English was emphasized within the language planning process, further emphasis was placed on acceptance of diversity and multimodality, as detailed in the next subcategory.

Acceptance of diversity and multimodality. Acceptance of diversity and multimodality included recognition of multiple languages and modalities of ASL (visual and tactile); multiple tools and devices; integration of auditory, visual, and tactile strategies; and an exploration of communication through performing arts and music. While expressing a preference for language separation, the school policy also notes that not all students express language through American Sign Language or spoken English and that it is "...essential that other methods of expressive communication are established." During the 2019–2020 school year, a community art mural was created on the playground walls that depicted multimodal multilingual methods (ASL, iPad, PECS) to symbolize this acceptance of diverse language and communication strategies. The school logo was also revised during this year to represent the school's belief in inclusivity.

The responses of staff members demonstrated a consistent understanding and agreement with these values and the distinction between both separating languages and honoring the diverse needs of students:

Over the last three years, I have learned that it is best practice to separate English and ASL whenever possible to ensure the integrity of both languages. I also learned the term translanguaging and how to incorporate and honor an individual's use of multiple languages and modes. (Participant 4)

Multimodal Multilingualism is inclusive of all modalities i.e., sign, speech, audition, and augmentative communication (high tech and low tech-Proloquo2go, Pecs, touch chat etc.). (Participant 8)

Regardless of their level of comprehension or proficiency with the multimodal multilingualism, staff members demonstrated a respect for the concept based on the accessibility needs of their students, as this staff member emphasizes:

Still at the base level [of understanding Multimodal Multilingualism], but starting to understand the importance of multimodal multilingualism for our students. It provides our students the access to information they so desperately need. (Participant 7)

In addition to ASL and English, the heritage or home language of students was also factored into the diversity and inclusion model and mentioned by at least one staff member.

There is another student classified as Deafblind that uses listening and spoken language, ASL, tactile sign, and tactile symbols to communicate. Her home language is Spanish. She has a para in school that providers her with tactile sign throughout the day. She produces verbal approximations throughout the day mostly to label familiar people, gain attention, or in protest. She uses sign language mostly in the classroom setting. She uses tactile symbols to orient herself in a new environment and with unfamiliar people. She uses spoken English with some sign support when working with 1:1 related service providers. In her home environment, her family uses Spanish, English, and some ASL signs. The student responds most consistently to use of ASL and tactile sign. Since receiving her 1:1 para she is receiving increased information about her environment through tactile signing and demonstrates increased use of ASL. (Participant 4)

10.2. Acquisition Planning: Translanguaging

Acquisition planning—the process of addressing how language will be taught—included professional development activities and assessment protocols. The focus of these initiatives was on establishing expectations and accountability for implementing the school's Multimodal Multilingual Communication and Language Policy. The findings in this section outline the concepts that emerged in relation to how translanguaging mechanisms were understood and described. These concepts include: translanguaging to elicit

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communication skills, translanguaging as a trajectory from basic to formal communication, translanguaging to facilitate or repair communication, and translanguaging as a situational, transactional, or task-based approach to communication (see Table 2).

Table 2. Characteristics of Acquisition Planning: Translanguaging.

Category	Concepts	Properties	
		Eye contact	
		Getting attention	
Acquisition Planning:	Translanguaging to elicit	Gesture	
Translanguaging	prelinguistic skills	Vocalization	
0 0 0	1 0	Looking for visual information	
		Finding communication partner	
	Translanguaging as a trajectory from prelinguistic skills to formal communication. Translanguaging as a facilitation and repair strategy.	Chaining	
		Conceptual bridges	
		Labeling	
		Pairing	
		ASL and Role play to model strategies	
		Transition to ASL	
		Pictures to ASL	
		PECS to ASL	
		ASL to PECS	
		Tactile to ASL	
		ASL to English	
		ASL first or English first, then AAC or PECs to clarify	
		If not understood, use iPad	
		Adjusting to communication partner	
		To facilitate comprehension with adults	
		To facilitate comprehension with peers	
		Switching tools/modalities/languages based on partner	
		Switching tools/modalities/languages based on setting	
		Switching between AAC and ASL to repair for CP	
		Simultaneous use of eye gaze and PECs	
		Simultaneous use of ASL and AAC	
		Simultaneous use of gesture and vocalization	
		Code switching among peers and staff	
		Code switching within settings	
		Decreases frustration	
	Translanguaging as a	Expressing needs	
	situational, transactional or	Expressing feelings	
	task-based approach to	PECS limited to expression of a need	
	communication.	Communicating about schedules	

Translanguaging to elicit communication skills. As a number of students come to the school with delayed or minimal language, a significant amount of instruction focuses on engaging students into developing behaviors necessary for communication. These properties include eye contact, receiving attention, gesturing, vocalization, looking for visual information, and finding a communication partner. The goal of the school community is to engage all students into meaningful communication. To address prelinguistic needs, the school provided several workshops and training series on early communication during the 2020–2021 school year, including with a Training Center at the School for the Blind on early communication with preverbal DeafBlind children and teaching strategies for students at the sensorimotor stage. During the 2019–2021 school years, Pyramid Educational Consultants trained and certified teachers, SLPS, and support staff on the theory and implementation of PECS and the transitioning from PECS to a "speech-generating device" or high-tech AAC device. Staff members refer to several strategies as tools for eliciting communication behaviors, with an emphasis on pictures, PECS, and role play:

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Introducing PECS another visual mode helps to develop some of the pre-linguistic skills necessary to develop ASL (i.e., eye contact, looking for visual information, finding communication partner, etc.). It also helps to decrease frustration as students have a way to express desired as language develops. PECS training allows to partner assisted communication by providing students physical or gestural prompting to participate in communicative acts and does not rely on knowledge of language rules, etc. (Participant 4)

Assessment methods used to evaluate students' communication levels and appropriate tools to elicit communication include the *Critical Communication Skills Checklist* and *Student Skills Checklist* for PECS Levels, the *Communication Matrix* for functional communication and emerging language skills, and the *Communication Continuum* for determining which modality the student uses in a variety of settings. For specific modalities, the *Iconicity Scale* for determining which types of symbols best meet the student's needs, with *Kendall P-Levels* for functional language and communication skills for any modality. For DeafBlind students, the TVI uses the *Learning Media Profile* for modifications and accessibility related to the student's vision. Information from these assessments is then used for language and communication planning to further develop skills. Furthermore, SLPS were trained by the Deaf Blind center on an adapted version of the Communication Matrix for students with Cerebral/Cortical Visual Impairment (CVI), as CVI is a neurological vision loss that may improve over time rather than an optical vision loss.

Translanguaging as a trajectory from communication behaviors to formal communication. As students begin developing more language and communication skills, translanguaging is described as a process within the school setting that uses various modalities to connect communication behaviors to more formal communication, with an emphasis on meaning. Strategies for connecting skills include using ASL and role play to model strategies, chaining, labeling, pairing, and forming conceptual bridges. Connections are defined by transition to ASL, pictures to ASL, PECS to ASL, ASL to PECS, Tactile to ASL, and ASL to English. Although English to other languages or modalities was not mentioned, it was stated that some students went back and forth between speaking and signing, with mention of at least one student who was primarily an auditory communicator.

Professional development included training teachers and SLPs in transitioning from PECS to SGD by Pyramid. Support staff were trained in the application of Level 1 PECS by Pyramid. Responses by staff members indicate translanguaging strategies used to transition from prelinguistic skills to more advanced communication using AAC (including PECS) and various modalities:

AAC to ASL, using tactile input to create conceptual bridges (i.e., tapping body slowly to teach ASL word/concept SLOW), rhythmically signing, games that involve visual phonological awareness (handshape poems). (Participant 6)

I mean, we use pictures frequently to teach ASL/English signs/words and concepts. ASL is used to teach written English across the school building. When a student expresses a big feeling—usually, but not always, through vocalizations or crying—that is often used as an opportunity to teach formal language for labeling emotions, etc. (Participant 5)

When students arrive without demonstrating consistent use of a formal mode of communication, picture exchange communication symbols can be used to introduce ASL or to serve as a spring board towards high-tech AAC device. During manding sessions, typically used in phase I PECS trials, students are introduced to the idea of exchanging a picture for a desired object. Communication partner sits directly in front of student with desired object. Student places picture into communication partners open hand and immediately receives desired object. Initially, a support staff is seated directly behind student and will physically prompt student to exchange picture with communication partner. With hearing children, the picture is paired with the corresponding word to show the connection. This is

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done in a similar manner for ASL. The desired object, picture, word and or sign can be paired to support students' comprehension of a sign. (Participant 4)

Translanguaging to facilitate or repair communication. Student translanguaging was described by several staff members as a repair strategy for students with developing social communication skills. For those with more advanced language skills and a varied repertoire of modalities, more focus was put on proactively facilitating communication.

As a conceptual process, translanguaging was described as adjusting to communication partners, facilitating comprehension with adults, facilitating comprehension with peers, and switching tools/modalities/languages based on partners (code switching). Although staff described switching between modalities frequently, the simultaneous use of modalities was also noted, such as the simultaneous use of eye gaze and PECS, use of ASL and AAC, and use of gesture and vocalization. The use of switching between modalities was presented as a facilitation tool, such as code switching among peers and staff and within settings, and also as a clarification strategy that allows students to be more easily understood by others. Several staff members described deaf students with cerebral palsy as switching between AAC and ASL to repair communication breakdowns that emerged when others did not understand them. These particular strategies were noted to decrease frustration, particularly among individual(s) with CP.

One student in particular comes to mind when switching from different communication modalities. He has the ability to use ASL, but struggles because he has CP. When a teacher or a teacher assistant can't seem to understand his signing he will resort to using his IPAD. (Participant 7)

...a specific student who relies on sign language and audition to understand information being presented to him, however, he has CP and his sign language and speech intelligibility is affected. He uses a combination of speech approximations, sign language (both preferred) and AAC (Proloquo2go) to express himself. He has been working on specific communication strategies when a communication breakdown occurs. The communication repair strategies are multimodal and multilingual. (Participant 8)

...student came from a public school and his primary receptive mode of communication is auditory-spoken English. However, he was given an AAC device due to decreased intelligibility of spoken English. He was also exposed to ASL in that setting and used a few signs. After 1 1/2 years in our school environment, he is demonstrating increased comprehension and expressive use of ASL. However, due to his severe CP his signing is not always clear and he uses AAC as a repair strategy. (Participant 4)

Students are also noted to use signs and then switch to devices when they are not understood. They may integrate a variety of strategies at once in an effort to be understood:

Almost (if not) all of my students use multiple modalities of communication, sometimes simultaneously; eye gaze paired with PECS, ASL vocabulary paired with AAC device use, gesturing paired with emphatic expressions and vocalizations. Other examples: student uses multiple modalities to be understood, i.e., attempts to speak a word, switches to signing ASL word for clarity, points to a conceptually related image. (Participant 6)

In addition to using ASL first and then shifting to AAC or PECS to clarify, some students use English or spoken language first and then shift to AAC or PECS.

After 1 1/2 years in our school environment, he is demonstrating increased comprehension and expressive use of ASL. However, due to his severe CP his signing is not always clear and he uses AAC as a repair strategy. He has begun to first use sign when communicating with another Deaf individual but will use AAC to clarify. He will use spoken English with hearing adults and use sign and AAC repair strategy. He moves between modes all day. (Participant 4)

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Translanguaging as a situational, transactional or task-based approach to communication. Translanguaging strategies are repeatedly noted to be used for simple communication, whether for eliciting communication behaviors, engaging in simple exchanges, or scaffolding student skill. A significant bulk of meaningful communication is focused on expressing needs, expressing feelings, and communicating about schedules. While PECS is frequently mentioned by staff members, one staff member suggested that it was limited to the expression of a need. These exchanges are sometimes limited to basic information about the students' feelings and school environment but they are not without meaning and are understood by staff members as a process of developing more meaningful communication and connections.

During the PECS phases, the student is provided with the signed equivalent or speech depending on their L1. This has proven valuable for many students especially to establish communicative intent and to have shared experiences. By these shared experiences and comprehension that communication is reciprocal, requiring a sender and receiver, has provided opportunities to provide multilingual representations. I have had students transition from PECS to sign language and their communication is more meaningful. (Participant 8)

A significant portion of acquisition planning is currently facilitating *all* students' development of functional communication skills. For the population of students at the research site, the occurrence of unique disabilities, multiple disabilities, and other issues, such as language deprivation requires an additional emphasis placed on behavioral skills as a benchmark towards using formal communication tools, such as low tech media, high-tech devices, ASL, and English. For students who interact with individuals in their environment that have varied communication skills and needs, translanguaging strategies such as tactile use of ASL, PECS, and AAC are used to facilitate or repair communication, with students using both simultaneous and alternating strategies, code switching, and switching among languages and devices.

10.3. Corpus Planning: Translingual Framework

In corpus planning, or the description and standardization of language, the school began to shape the foundation of a translingual framework for teaching and using a multimodal and multilingual approach. This was achieved by promoting, exploring, and sharing translanguaging strategies. The four-part process of the Language and Communication Planning Procedures included first developing a Language and Communication PROFILE Summary for each student using informal assessments curated by the committee. This summary spreadsheet was a snapshot of each student's functional communication and pragmatic skills. The second step was to collect data from formal assessments and observations on students' language skills and developmental milestones, while the third step was to develop the individual Language and Communication PLAN (LCP) informed by this data. The LCP for each student included blocks of time allocated to language immersion, acquisition, direct instruction, and translanguaging. The fourth step was to identify and apply appropriate language facilitation and teaching strategies to implement the LCP. The procedures required the assessment and application of individualized translanguaging strategies to integrate language learning and the acquisition of multilingual skills. Through this process, the school began to define how to effectively describe and guide students and staff through translanguaging and effective communication. The themes that emerged in the translingual framework corpus planning concept included community developed materials, a child-directed framework, teacher initiative, and the need for transferability of skills (see Table 3).

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Table 3. Characteristics of Corpus Planning: Translingual Framework.

Category	Concepts	Properties	
	Community developed materials	Multimodal trainings Multimodal programming (music, arts) Language and Communication Plans Community language murals Bulletin board displays PECS book stations in cafeteria, recess spaces	
Corpus Planning: Translingual Framework	Teacher developed materials	Modeling PECS training AAC Core boards Modeling/teaching students about AAC skills is minimal	
	Need for transferable strategies	Teacher need to research on modeling PECS used Preference for discussion with colleagues as a tool Benefits of observing those who use varied tools Asking questions/listening to AAC users Watching videos with	
	Child-directed framework	Assessing and developing communication plans twice/year Using data to refine plans Child's behaviors and actions as framework Individualizing toolkits	

Community developed materials. As the school began to acknowledge and promote a multilingual, multimodal philosophy, they collaborated to develop communal materials that reflected the basic vision and building blocks of the communication philosophy, including the LCPs, multimodal trainings, multimodal programming in music and performance arts, community murals representing translanguaging tools, bulletin board displays with cultural and linguistic information, and PECS book stations in the cafeteria, recess, etc. In addition to these materials, outside community members were engaged in developing shared cultural experiences and professional development opportunities. Of particular importance to note is that many of these strategies and curricular innovations were led by DDBDD adults. One project in particular involved a hard-of-hearing music teacher and a DeafBlind technology consultant who collaborated on an accessible design for a music video.

Additional community-developed products came from ASL and cultural workshops, training on assessment for DeafBlind students, and various partnerships with experts and organizations in the field to develop instructional guidelines and data collection mechanisms. The *Language and Communication Profiles and Planning Procedures* (see Table 4), although not described explicitly by staff members in the survey, provided the largest corpus planning mechanism during this language planning cycle and focused on the needs of each individual child.

Child-directed framework. A child-directed framework was formalized with the development of the LCPs, using the child's behaviors and actions as the framework for their instructional plan. The components of the Language and Communication Profiles and Planning Procedures included informal assessments curated by the communication team that collected information to determine students' functional and emerging language skills (Critical Communication Skills Checklist, Student Skills Checklist, Communication Matrix, and Kendall Proficiency Levels), modality of language use (Communication Continuum), social language skills (Pragmatics Checklist), modification and accessibility related to vision (Learning Media Profile), and types of symbols suitable to a student's needs (Iconicity Scale). Aside from the Kendall P-Levels, informal assessments were adapted by the SFDS Language Planning Committee with the goal of mapping out a child-centered framework.

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 Table 4. Language and Communication Profile and Planning Procedures.

Procedure	Directions	Suggested Timeframe	
Step One: SLP Supervisor or each team's Gatekeeper organize every class' digital folder and files	 Ensure the paperwork for assessments and documentations are ready and available for the team a. One Drive Folders/Files b. LCP 	Completed within the first week of school.	
	First,		
	 Complete the Communication Continuum for each student to determine which modality the student uses in a variety of settings. If the student is DeafBlind, TVI to use Learning Media Profile for modifications and accessibility related to the student's vision. 		
Step Two: Develop Language and Communication PROFILE (LCP) Summary 2 times per school year. Note: These are informal assessments and screenings that can be done multiple times throughout the year. If disagreement among team members, collect 3 days of data with Communication Continuum and remeet.	Based on the student's receptive and expressive modalities, select the most appropriate of the following screenings to complete (note: you may select screenings from different modality categories): Signed language user:	This should be completed within	
	 For functional language and communication skills for emerging language users, use the Kendall P-Levels For receptive ASL skills, use the ASL-RST if the student has higher-level language For social language information, use the Pragmatics Checklist 		
	 AAC (e.g., PECs, iPad) user: For PECS levels, use the Critical Communication Skills Checklist a. If you completed the CCSC, use the Pragmatics Checklist For PECS levels Student Skills Checklist For functional communication and emerging language skills, use Communication Matrix For determining which types of symbols best meet the student's needs, use the Iconicity Scale 	a week. We suggest spending about an hour per student during assessment week in September and again in June.	
	Spoken language user:		
	 For listening and spoken language skills, use the CASLLS Finally, the Language and Communication Supervisor will share the student's file with you: 		
	3. Complete Language and Communication Profile Summary Form for that student.		
Step Three: Develop the student's Language and Communication PLAN	Use the student's LCP to develop a language allocation plan for the classroom- Immersion, Acquisition, Learning, Integration	This should be completed after you receive your finalized	
	 You may utilize anecdotal notes, assessment data, the LCP summary, and/or the student's daily schedule to inform your allocation plan 		
	2. Use the student's LCP to guide additional supports needed for	schedule. We recommend utlizing	
	student and family 3. Use students' LCPs to help differentiate instruction in the classroom (use this schedule to help)	about an hour and half during class time to complete the allocation plan.	
	 Use the LCP to guide student groupings Use the LCP to plan access to curricula and social-emotional development 		
Step Four: Identify and apply appropriate language facilitation and teaching strategies	 Participate in professional development activities related to multimodal/translanguaging teaching methodologies Participate in multidisciplinary/transdisciplinary team meetings Post language allocation plan in each classroom 	 Sporadic professional development all year long Monthly team meetings with the Language and Communication Supervisor Professional Learning Community (PLC) meetings throughout the year 	

The formal assessments, used only for intakes and triennials, collected more detailed information on ASL development, ASL Vocabulary, receptive and expressive spoken language skills, developmental milestones, ASL receptive skills, and expressive stills. Information from these assessments was used to create a profile of how each student functioned

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within the spectrum of multilingual, multimodal communication. The profile summary included notes on students' hearing levels and sensory orientation, language skills, and other social, pragmatic, and medical information. This summary was used to develop a language and communication *allocation* plan (see Table 5) that determined the amount of time and opportunities for students to acquire and experience direct language instruction, and the integration of translanguaging. These allocations provided guidelines for teachers and staff on developing students' "multilingual skills" by addressing ASL, spoken English, AAC, and literacy in lesson planning and during instruction. These procedures helped staff members to develop a structure informed by students' strengths and needs, using this to begin developing an individualized translanguaging toolkit for each student.

Table 5. Language and Communication Allocation Plan.

Acquisition **Immersion** Language acquired through a subconscious A block of time dedicated to language process during which they are unaware of "immersion" is an opportunity for students to grammatical rules. acquire and experience a distinct separation with clear boundaries of modes. Language acquisition means "picking it up" (i.e., developing ability in a language by using it in natural, communicative situations). Learning Integration/Translanguaging Learning language as a conscious activity. Teachers and staff focus on developing Direct instruction in the rules of language and students' "multilingual skills" by addressing purposefully studying lists of vocabulary and ASL, spoken English, AAC, and literacy in grammar forms. lesson planning and during instruction. Not age-appropriate activity for young children. Family Supports

Teacher initiative. As a school community with varied learners and alternate methods of language, communication, and instruction, there is a great reliance on teacher initiative. Responses from staff members show that they have gained knowledge and skills but that there is more to learn and continue refining, both for student needs and their own.

With something like PECS (a more formal type of AAC), there technically is no modeling. A kid is just expected to know what to do—or to be taught very didactically, in a way that ignores their own autonomy and pace of learning—to request things specifically by completing a specific step, or a series of steps, in order to have their needs met. So I've had to do a lot of research—mainly by asking questions of and listening to actual AAC users—on how to best implement modeling AAC into my classroom instruction. (Participant 5)

The responses indicated that while the staff appreciation for the philosophy is apparent and their knowledge of multilingual strategies is emerging, they need further development and opportunities to share materials and effective strategies.

Need for transferability of skills. As teachers and staff members learn new skills and methods of facilitating instruction within a multilingual, multimodal environment while developing resources and strategies, there is a growing need for skills that can be passed on to other teachers and modeled for other students. Transferability of skills refers not only to skills used by students but also by staff members. Multiple respondents mentioned that collaborating with, learning from, and observing others who are using the skills in authentic ways is beneficial to their own process. This includes discussion with colleagues, observing

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those who use varied tools, asking questions/listening to AAC users, and watching videos or observing strategies in action.

That was super helpful for me to see as a teacher because it expanded my thinking on what communication could look like, especially for a DeafBlind child. I have the video in mind often when working with DeafBlind students at SFDS, and it helps me connect with them more and help me figure out their communication better. (Participant 5)

I think attending meetings where it involves a student who uses Multimodal-Multilingual has helped me grasp an understanding. Obviously what works for one student won't work for all, but it's nice to see some similarities that become transferable from student to student within this approach. (Participant 7)

These responses indicate that staff members understand the principles of multimodal communication and are also striving to standardize this flexibility into a transferable corpus of translanguaging strategies.

10.4. Axial Coding: Community Knowledge

After the interconnecting themes were coded and categorized, they were reduced during axial coding to *co-construction of knowledge* and *community translanguaging toolkits*. The connecting themes were identified by asking how multimodal multilingual status planning impacted staff perception of translanguaging and how translanguaging mechanisms were effectively applied.

Co-construction of knowledge. Staff members describe the school as a learning community—not simply a place where students come to learn, but where all community members are learning together. The survey responses demonstrate an emerging, yet consistent, formal understanding of translanguaging as a flexible and dynamic approach to communication, with appreciation for training opportunities and exposure to the knowledge and experiences of DDBDD people. Staff members did not describe working for DDBDD people but working with them, both children and adults. Learning to communicate and educate students was described as a collaborative process facilitated by professional development but mediated through peer and community interaction. All survey respondents expressed a positive perception of the language planning process and professional development experiences, with some admitting that they were still at a basic or emerging level in their understanding of it:

Still at the base level [of understanding Multimodal Multilingualism], but starting to understand the importance of multimodal multilingualism for our students. It provides our students the access to information they so desperately need. (Participant 7)

Furthermore, they understood and collaborated on effective learning strategies that applied not only to students but to staff members themselves and, notably, to experts in the field and DDBDD people themselves.

So overall, my understanding of multimodal multilingualism has grown to include different types of AAC, and that has involved a lot of listening to the experts themselves, which has benefited me as a teacher/communicator and my students as learners/communicators. (Participant 5)

While all staff responses indicated agreement with the communication philosophy and understanding of the essence of translanguaging, the understanding of translanguaging principles and practices is reported to be still emerging, particularly within the notion of language separation and allocation, which indicates that further developing a collective understanding and use of translanguaging mechanisms and resources is a natural next step.

Community translanguaging toolkits. While staff members described translanguaging as an individual trajectory based on both student needs/abilities and staff capacity, they noted that the strategies were essentially similar in purpose; building meaning, facilitating

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comprehension, and connecting skills among modalities to expand the range of meaningful strategies among both students and staff members. The focus was primarily on student learning, but staff members described themselves as part of the learning community. They emphasized that having meaningful connections is a critical component of effective student engagement and that it is necessary for staff to continue building their capacity to communicate with a wide range of students as well as empower students with resources that facilitate their autonomy and success with social communication.

Along with the language planning documents and professional development programming, the integration of DDBDD multimodal arts programming, community murals representing translanguaging tools, and other open-source materials, such as bulletin boards and PECs resources in shared spaces, showed that school community members were engaged in developing shared cultural experiences and expanding their collective capacity to communicate effectively with students. These experiences, coupled with the Language and Communication Profile and Planning Procedures and LCPs, provided a starting toolkit of guidelines and strategies for understanding and encouraging dynamic and effective communication for each student.

A common theme among survey respondents and language planning artifacts was that full and equal participation in the school community was an important element of every student's learning experience. For some students, this required facilitating communication behaviors, while others were expected to use or build on their repertoire of communication strategies. The development of a *collective* toolkit of strategies was also noted. One staff member described strategies for eliciting communication behaviors as an approach that was conceptualized on a community level, indicating that these strategies were developed collectively:

...we use pictures frequently to teach ASL/English signs/words and concepts. ASL is used to teach written English across the school building. When a student expresses a big feeling—usually, but not always, through vocalizations or crying—that is often used as an opportunity to teach formal language for labeling emotions, etc. (Participant 5)

The common thread among these exchanges was the goal of making connections between skills and modalities in a way that is most meaningful for students, acknowledging that this capacity will vary among students and staff members who may switch strategies depending on their setting and communication partners. Using pictures, role play, and ASL is described by several respondents as an accessible way to model strategies that can be connected to other modalities and higher-order thinking skills through chaining, labeling, pairing, and forming conceptual bridges. Overall, within the language planning process, staff members are united in a common and emerging understanding of the need to develop individualized and collective toolkits that provide both structure and flexibility for students so that they can access communication and grow in the school environment.

10.5. Selective Category: Facilitating a Multimodal Translingual Framework

A selected category was developed by asking how language planning and professional development mechanisms facilitated a multimodal, translingual framework. In the context of a multilingual multimodal language planning cycle, developing a shared language ideology guided by DDDBDD people emerged as an overarching theme that promoted dynamic languaging and understanding of strategies for effective communication. The school community showed both value and interest in further developing dynamic languaging skills in the school environment while acknowledging the need for increased access to a collective repertoire of materials and strategies to use. Of relative consistency and strength among survey respondents and planning artifacts was the ideology that languaging was a flexible and dynamic experience for all in the school environment.

While flexibility and individual preference was emphasized, ASL and English were repeatedly identified as separate languages with equal status in the school communication policy. The separation of languages was emphasized less as a boundary on which language

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could be used and more as a focus on developing skills in multiple languages. Staff were provided with professional development opportunities to increase their ASL skills, while students were exposed to a variety of ASL literary curricula and DDBDD adults who use ASL. The Language and Communication Profile and Planning Procedures were used to thoroughly assess student needs, skills, and preferences, while the LCPs provided guidelines for allocating time for direct instruction in a specific language. Having skills in both languages provided an opportunity to discover and map out strategies for bridging them. Dynamic communication with the use of multiple communication tools was described and encouraged in school policies and procedures; a value that was further reinforced by staff narratives.

Evidenced by many of the responses shared above, staff often described their values in recognizing a community that engages in meaningful experiences with students through accessible modalities and effective strategies as a valuable priority. One example shared again:

This has proven valuable for many students especially to establish communicative intent and to have shared experiences. By these shared experiences and comprehension that communication is reciprocal, requiring a sender and receiver, has provided opportunities to provide multilingual representations. (Participant 8)

These meaningful experiences encourage staff to continue expanding their skills. Through a shift to community-defined language use, students and staff members are promoting an inclusive language ideology that centers the needs and strategies of those who are themselves DDBDD.

11. Discussion

As the school transitions from a Total Communication to a Multimodal Multilingual philosophy, it has shifted towards community-defined language use, recognition of ASL and English, and acceptance of diversity and flexibility. Through policy changes and professional development opportunities, the school community developed an understanding of translanguaging as a process of eliciting communication behaviors, making connections, and interacting meaningfully with others. The school community showed both value and interest in further developing dynamic languaging skills in the school environment while acknowledging the need for increased access to a collective repertoire of materials and strategies to use.

The results align with the findings by Holdway and Hitchcock (2018) that professional development can increase educators' language ideology, awareness of translanguaging, and reflection on their teaching process. Similar to the study by Holdway and Hitchcock (2018), the teachers in the current study were positioned as capable of impacting the development of a transformative space for students through their awareness. The newness and complexity of translanguaging theory has been identified as a notable constraint in adopting a translingual stance (Deroo and Ponzio 2019), which was apparent in the shift from language hierarchies and separation to advocacy for dynamic language practices. Interestingly, the teachers in the current study defined multimodal multilingualism as both the separation of languages and acknowledgement of nuance and dynamism in individual language use.

Typically, language separation is not part of a translanguaging framework, which aims to move away from named languages and towards the concept of one overarching language repertoire that people use flexibly (García and Kleifgen 2019). The primary concern about language separation is that it may leave little space for comfortable and dynamic translanguaging (Palmer et al. 2014). The language planning artifacts and survey respondents, however, describe both a need to separate languages and to encourage a flexible approach of mixing, blending, and drawing together a variety of modalities and resources. Language separation within the context of this program is defined as the recognition of the status of ASL and the need to develop ASL skills in both students and staff members.

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As the school transitions away from a Total Communication philosophy and tendency to use spoken and signed language simultaneously, the Multilingual Multimodal language planning process and staff perspectives demonstrate an active attempt to balance an elevation of ASL (and AAC/PECS) with the development of flexible and individualized toolkits for each student. The Language and Communication Profile and Planning Procedures and Language and Communication Plans mirror the ecological strategies used by Swanwick et al. (2016) to illustrate the toolkits used by each student. Further aligning with the suggestion that practitioners have a major role to play in developing knowledge of the application of these strategies (Swanwick et al. 2016), the staff members in the study described their work as a process of observing, experimenting, and applying strategies. They also expressed an appreciation for working with experts, heritage language users, and colleagues.

The need to develop translanguaging instructional strategies that position heritage bilingual speakers as multilingually competent (Palmer et al. 2014) is emphasized in the school language planning efforts. In order to provide a more meaningful and accessible social environment, the school has looked to the guidance and experience of DDBDD adults. By requiring that the school be accessible to DDBDD staff and community members at all times, engaging DDBDD educators in professional development sessions, and assigning them leadership roles, the school community is providing students with a greater ability to co-construct dynamic and effective languaging environments.

While discourse in deaf education has typically centered around either spoken or signed languages, the needs of DDBDD have consistently challenged these constructs and expanded the idea of languaging. In fact, the most well-known deaf person in history, Helen Keller, was a deaf-blind woman who used multimodal language and communication strategies. One of the most notable aspects of Helen Keller's story was her engagement in social discourse through writing and public speaking. Her story continues to endure as a symbol of human diversity and self-representation. Helen Keller was able to contribute to literate society because she had meaningful access to discourse communities that provided exposure and reinforcement of ideas. Responding to a challenge on whether Helen Keller was truly capable of social discourse, Henner and Robinson (2021) suggest that language, the body, and the environment are interactive conditions that cannot be isolated from one another, and for people with disabilities, the way they access and use language is shaped by these experiences and environmental reinforcements but is in no way inferior or incapable (Henner and Robinson 2021).

Expanding the conceptions of languaging from spoken to signed, the program in the study further develops this understanding to include assistive devices and low-tech picture systems. Some have suggested that in order to develop a plan for the effective use of AAC systems and tools, practitioners should be aware of language ideologies that may influence device use and service models (Tönsing and Soto 2020). The teachers in the study describe experiences with students using AAC through a lens of language ideology, relating the development of their ideology to professional development experiences, self-reflection, and collective discussion, bolstering findings by Deroo and Ponzio (2019) that with time and a reflective process, teachers are able to engage in an ideological shift at the microlevel away from language separation and monolingual paradigms to a more fluid and dynamic stance.

After establishing the equal status of ASL, the importance of language separation, and the need for acceptance and fluid use of diverse modalities, the school began integrating the perspectives and expertise of DDBDD people into the community, promoting partnerships and community development, and collaborating on resources and a collective understanding of the redefined discourse community. The reflection of staff members in all survey responses demonstrates an understanding that DDBDD people navigate their environments with similar motivations, as all other people, to engage in meaningful social interactions. Along with this understanding, the school community has described emerging expertise in using translanguaging strategies that acknowledge separate languages and navigate between them to facilitate, repair, and expand conversational experiences. These

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findings align with the conclusion reached by Henner and Robinson (2021) that the first steps to redefining language use, along with accepting multilingual multimodality, are "Embracing time, space, and material environments in meaning-making...".

12. Conclusions and Recommendations

The purpose of the current study was to explore the perceptions of a school community on translanguaging after a three-year language planning cycle. The findings showed that the school community is developing a translingual framework by co-constructing knowledge of how DDBDD people use language. While ASL and English are recognized as distinct languages, a need for flexibility and diverse communication strategies is emphasized. Translanguaging is described as a mechanism for first eliciting communication behaviors and then as a trajectory to formal communication by making connections between modalities and languages. It is also noted to occur while facilitating or repairing conversation and within situational, transactional, or task-based approaches to communication and embraced within all levels of the school. Through both informal exchanges and formalized planning, the community has developed strategies and materials to use in collective and individualized toolkits.

The first element in every translanguaging toolkit is engaging in communication behaviors. Students were commonly able to begin making meaningful connections with pictures, role play, and ASL. With the integration of AAC, PECS, tactile sign, and spoken language, students and staff were able to apply a range of strategies to facilitate and repair communication. The success of these strategies depended on the knowledge and experience of both students and staff members. Effective strategies were learned from peers, students, and DDDBDD community members. With great reliance on teacher initiatives to implement the individualized communication plans, staff members need additional opportunities to share materials and strategies.

Recommendations include creating multimedia products that illustrate features of translanguaging strategies, providing multimodal access to varied and meaningful social situations, and further engaging DDBDD adults into positions of modeling translanguaging strategies in tandem with professional learning communities. Additional research is recommended on the translanguaging strategies used by DDBDD adults, students, and staff members.

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Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to potential identifiers in survey responses, such as school name.

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