AAC and Multilingualism in Children with Complex Communication Needs: Perspectives of Filipino Parents and Teaching Professionals

Anne Aubrey V. Dulay
San Jose State University

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AAC AND MULTINGUALISM IN CHILDREN WITH COMPLEX COMMUNICATION NEEDS: PERSPECTIVES OF FILIPINO PARENTS AND TEACHING PROFESSIONALS

A Thesis

Presented to

The Faculty of the Department of Communicative Disorders and Sciences
San José State University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

by
Anne Aubrey V. Dulay
May 2022
The Designated Thesis Committee Approves the Thesis Titled

AAC AND MULTILINGUALISM IN CHILDREN WITH COMPLEX COMMUNICATION NEEDS: PERSPECTIVES OF FILIPINO PARENTS AND TEACHING PROFESSIONALS

by

Anne Aubrey V. Dulay

APPROVED FOR THE DEPARTMENT OF COMMUNICATIVE DISORDERS AND SCIENCES

SAN JOSÉ STATE UNIVERSITY

May 2022

Wendy Quach, Ph.D. Department of Communicative Disorders and Sciences

Matthew Love, Ph.D. Department of Special Education

Alison Pentland, M. A. Department of Communicative Disorders and Sciences
ABSTRACT

AAC AND MULTILINGUALISM IN CHILDREN WITH COMPLEX COMMUNICATION NEEDS: PERSPECTIVES OF FILIPINO PARENTS AND TEACHING PROFESSIONALS

by Anne Aubrey V. Dulay

Parents and teaching professionals of children who use augmentative and/or alternative communication (AAC) systems within multilingual environments often face complicated decisions regarding their language choices and practices. Understanding their perceptions on this topic can assist AAC service providers in supporting them better during intervention. This study aimed to explore the perceptions of Filipino parents and teaching professionals regarding AAC and multilingualism. Specifically, this study sought to describe their language choices and practices when interacting with the AAC communicator and to describe the influencing factors. This study followed a qualitative design employing focus group discussions. Six participants took part in the focus group discussions. Data from the focus groups were transcribed and analyzed thematically using an inductive approach. Seven themes were identified: (a) language exposure, (b) service delivery, (c) AAC device characteristics, (d) AAC user characteristics, (e) opportunity barriers, (f) language beliefs, and (g) multimodal AAC. Both parents and teaching professionals were found to take many factors into consideration when making language choices for AAC communicators. AAC service providers need to remain aware and mindful of these factors to understand and support parents’ and teaching professionals’ decision-making processes in a way that is respectful to their ideals and aligned to current research evidence.
ACKNOWLEDGEMENTS

This research project would not have been possible without the participants, and I am grateful for their willingness to share their thoughts and experiences with me. Thank you to my family for providing me with every type of support I needed throughout this journey. I am grateful to my “silent family” for lending your ears and making me laugh during challenging times. Thank you to my friends for your words of encouragement. Thank you, Young, for doing a fantastic job with the transcriptions. Thank you, Dr. Lyle Lustigman, for encouraging me to pursue a thesis project. I am also grateful for the vital support and feedback from my thesis committee, Dr. Wendy Quach, Dr. Matthew Love, and Alison Pentland. In particular, I am incredibly grateful to my thesis advisor, Dr. Wendy Quach, for guiding me throughout this journey, believing in me, and instilling in me the confidence that I am capable of taking on this challenge. Thank you to my partner for your patience and for providing me with endless love and support throughout this project. This thesis is dedicated to my brother and all the Filipino AAC communicators I have worked with in the past. You are the source of my passion for AAC and multilingualism.
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Introduction

The majority of the world’s population is multilingual (Grosjean, 2010), making multilingualism a common phenomenon. Approximately 67 million individuals, or 22% of the population aged five and over, speak more than one language in the United States (U.S. Census Bureau, 2019a). In California, approximately 44.5% of the population speaks a language other than English (U.S. Census Bureau, 2019b). The top three non-English languages are Spanish, Chinese, and Tagalog (U.S. Census Bureau, 2019c). The Tagalog language originates from the Philippines, a linguistically diverse country with more than 100 distinct languages. The Philippines is a multilingual nation (Ang, 1978), and it has two official languages - Filipino (Tagalog) and English (Phil. Const. art. XIV, § 7), making the country inherently multilingual.

Multilingual families make decisions about language use and practices at home, which are influenced by a variety of factors, such as policy or law regarding official languages, the language of instruction in school, perceived benefit of a specific language, and preconceived notions regarding the effects of exposure to multiple languages on a child’s development (King et al., 2008). The interaction of these factors results in varying degrees of multilingual experiences among families, as some abandon their native language in favor of a second language, while others maintain a balance between the native language and another language (Protassova, 2018). Decisions regarding language use and exposure in multilingual populations are further complicated with the presence of severe speech and/or language impairment in children, as families consider other factors such as the availability of
intervention services in specific languages (Yu, 2009) or the perceived learning demands of using more than one language (Pickl, 2011).

Children with severe speech and/or language impairment, also called children with complex communication needs (CCN), are a diverse group of individuals who share one characteristic, the inability to communicate through verbal speech (Beukelman & Light, 2020). These children often require augmentative and/or alternative communication (AAC) systems such as picture books, iPad communication applications, computer programs, or dedicated communication devices.

With the rise of AAC awareness in the Philippines, many Filipino families have acquired AAC services and obtained AAC systems for their children with CCN (Manalansan et al., 2018). Unfortunately, most AAC systems available in the market are in English, and there is a lack of AAC systems that allow for multilingual expression (Soto & Yu, 2014). As a result, there is limited support for expressive multilingualism for the linguistically and culturally diverse population. At present, there is no pre-programmed Tagalog vocabulary in AAC systems currently available in the market. Due to limited options, many Filipino AAC communicators use pre-programmed English-based AAC systems instead.

Several studies have shown that exposure to multiple languages does not negatively affect a child’s language development (McNamarra, 2018; Soto & Yu, 2014). Families who come from a linguistically diverse background are encouraged to maintain the language/s being spoken at home as it actually benefits children and even positively affects their English proficiency (Vallance, 2015).
However, despite evidence suggesting that multilingualism is not a disadvantage, some parents are still concerned that learning more than one language might be too difficult or cause further delay in language development for children with language disorders (Yu, 2009). Moreover, some parents stop using their native language around their children upon being diagnosed with a disability due to the assumption that English is a prerequisite for acquiring special education services or intervention (Yu, 2009).

On the other hand, teacher choices on language use largely depend on policy and law regarding the mandated language of instruction. Unfortunately, unless teachers are required to use a student’s native language as support in school, the use of languages other than the mandated language of instruction depends on the teacher’s willingness to include a student’s language and culture in class (Pickl, 2011).

Abandoning the native language or favoring the majority language can be detrimental to social development (Baxter, 2017). Children with CCN already have limited opportunities for communication, and restricting access to only one language when they live in a multilingual environment can further limit their participation in interactions with family members, peers, and people in the community (McNamarra, 2018).

The evidence-based practice triangle consists of three arms, one arm representing stakeholder perspectives and the other two representing current research evidence and clinical expertise (Schlosser & Raghavendra, 2004). Understanding the views of parents and teachers on multilingualism, their concerns, and the support they require can help AAC service providers prescribe intervention that is compatible with the family’s priorities, needs,
and values. At present, no study has investigated the perceptions of Filipino parents and Filipino teaching professionals of AAC communicators regarding multilingualism.
Literature Review

The literature review will focus on the following:

1. Multilingualism and its definitions and terms
2. Language context in the Philippines
3. Multilingualism and language development in children with and without language disorders
4. Current situation of AAC in the Philippines
5. Parents’ and teachers’ perceptions and practices around multilingualism in children with language disorders
6. The rationale for this study

Multilingualism: Definitions and Terms

The terms multilingualism and bilingualism are sometimes used interchangeably in the literature. However, bilingualism technically refers to speaking and understanding two languages, while multilingualism refers to the ability to speak and understand two or more languages (Cenoz, 2013). In this study, the term multilingualism will refer to the ability to speak and understand more than one language. There are different schools of thought regarding multilingualism, as some emphasize proficiency while others emphasize language use (Cenoz, 2013). For this study, we put emphasis on language exposure and use, as opposed to proficiency, to provide consideration for children with CCN. Table 1 contains a list of terms and definitions related to multilingualism used in this study.
Table 1
Definition of Terms Related to Multilingualism

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monolingualism</td>
<td>The phenomenon of communicating in one language (Cenoz, 2013)</td>
</tr>
<tr>
<td>Multilingualism</td>
<td>The phenomenon of communicating in more than one language (Cenoz, 2013)</td>
</tr>
<tr>
<td>L1, home language, or native language</td>
<td>Refers to the first language learned (Kay-Raining Bird et al., 2016)</td>
</tr>
<tr>
<td>L2</td>
<td>Refers to the second language learned (Kay-Raining Bird et al., 2016)</td>
</tr>
<tr>
<td>Official language</td>
<td>The language that has official status as mandated by a country’s laws</td>
</tr>
<tr>
<td>Language of instruction</td>
<td>The language that educational institutions use for teaching, which is</td>
</tr>
<tr>
<td></td>
<td>mandated by a country’s laws</td>
</tr>
</tbody>
</table>

Language Context in the Philippines

Several factors may affect language practices at the family level, including policy and law regarding official language use, mandated language of instruction in schools, and community practices. A brief background of the language context in the Philippines and Metro Manila (the Philippines’ National Capital Region) is provided.

The Philippines is a linguistically diverse country in Southeast Asia, with more than 100 languages spoken (Eberhard et al., 2021). Approximately 90% of the population speaks one of the twelve major languages: Tagalog, Bisaya, Cebuano, Ilokano, Hiligaynon, Bikol, Waray, Kapampangan, Pangasinense, Maguindanao, Maranao, and Karay-a, and about 50% of the total population speaks Tagalog (Philippine Statistics Authority, 2010). In Metro Manila (also known as the National Capital Region), approximately 95% of the population speaks Tagalog (Philippine Statistics Authority, 2010). The Philippines has two official languages for communication and instruction: Filipino (Tagalog) and English (Phil. Const. art. XIV, § 7). Most Tagalog native speakers reside in Metro Manila, Southern Luzon, and Central Luzon (Himmelmann, 2005; National Statistics Office, 2000). Other major languages spoken in Metro Manila households include Bisaya and Ilokano (National Statistics Office,
2000). A brief history is provided to explain how the Philippines came to have two official languages.

The first dominant colonial influence of the Philippines was Spain (from 1564), which Catholicized the country through preaching using the Indigenous languages of the Philippines (Smolicz & Nical, 1997; Lorente, 2013). While this sped up religious conversion among the population, it also resulted in the limited influence of the Spanish language among the population (Tupas & Lorente, 2014), except for the small number of elite and educated individuals (Smolicz & Nical, 1997). According to Hau & Tinio (2003, as cited in Tupas & Lorente, 2014), the Spanish crown mandated the teaching of the Spanish language in the 16th century, but it was largely unsuccessful due to the lack of an organized school system, funds, teaching materials, and teachers.

After three centuries of Spanish colonial rule, the Philippines fell under the control of the Americans, who made immense efforts to promote and establish the teaching of the English language to Filipinos (Smolicz, 1984). During the American occupation, the English language rose to its prestigious status through mass education, leading to the swift adaptation of English (Ang, 1978). At that time, American teachers used only English as the language of instruction, and they prohibited the use of any other language in school (Smolicz, 1984). Some locals embraced this change as it provided greater benefits and opportunities in career, civil service, and politics (Tupas & Lorente, 2014). However, a growing number of nationalists pushing for independence from the colonizers were not happy with the domination of English in the country, and this soon led to calls to establish a national
language, as English became a symbol of oppression and supremacy by the American colonizers (Tupas & Lorente, 2014).

Eventually, Tagalog was established as the national language in 1937, which was then renamed Pilipino in 1959, and Filipino in 1987, all of which are linguistically the same, although they differ in name (Gonzalez, 1998). Also, in 1987, the Bilingual Education Policy of the Philippines mandated the use of the English language in teaching science and mathematics, and the Tagalog language is used in teaching all the other subjects both in elementary and secondary schools (Tupaz & Lorente, 2014). In 2009, the Philippine Department of Education issued an order to implement mother tongue-based multilingual education (MTB-MLE), which requires the use of learners’ first language as the language of instruction for all subject areas from pre-kindergarten to grade three, with Filipino (Tagalog) and English being taught as separate subjects focusing on language and literacy (Department of Education, 2009). In 2012, more specific guidelines were issued, where they shifted from the original mother-tongue approach to specifying one of twelve major regional languages to be used as the language of instruction (Department of Education, 2012). In Metro Manila, where most of the population speaks Tagalog, the language of instruction is Tagalog for all subjects except for the English subject from pre-kindergarten to grade three. Other cities with a different majority language will then use their majority language as the language of instruction in school while having English and Filipino (Tagalog) as separate subjects. As a result, most Filipino children grow up exposed to multiple languages.

In Metro Manila, where the population mainly speaks Tagalog and English, code-switching is common (Bautista, 2004), where multilingual individuals alternate between
Tagalog and English within the same context. Code-switching can result in discourse such as “Male-late na ako [I’m already running late], hurry up!”. In this context, code-switching is not merely the use of loan words but also the use of one language’s forms during discourse in another language and vice-versa (Bautista, 2004). Code-switching in the Philippine language context occurs in almost every form of media, including print, TV, and online media, making it an integral part of a Filipino individual’s language competencies (Bernardo, 2005).

The complex language context of the Philippines came to be because of the various historical events that shifted the country from one official language to the other, as well as the various language and education policies and community practices in place within the country. These factors influence the language use and practices of a typical Filipino family.

**Multilingualism and Language Development in Children With and Without Communication Disorders**

Aside from policy, law, and community practices, parents are also influenced by their own beliefs on the effect of using multiple languages on language development when making decisions regarding language practices. A literature review on children's language development with and without communication disorders is provided.

Research has shown that exposure to multiple languages in typically developing children does not hinder learning or development. In fact, multilingual infants have a similar early developmental trajectory of language acquisition as monolingual infants (Höhle et al., 2020). How children learn new vocabulary is different between monolinguals and multilinguals due to the differences in their respective languages’ phonetics, but multilinguals may even be at an advantage due to the more diverse phonetics that they are exposed to from both their L1 and L2 (Mattock et al., 2010).
A child may have varying levels of exposure to different languages, which may cause their proficiency in each language to vary. As a result, multilinguals may have a stronger or weaker language than others in their repertoire. While multilingual children can lag behind monolinguals in normal English language development, this does not necessarily present a significant delay if parents report that these children have skills in the native language (Hoff & Ribot, 2017), nor does it interfere with the verbal skills required for learning (Bialystok et al., 2010). In fact, a study that utilized Verbal Fluency Tasks found that multilinguals have an advantage over monolinguals when both groups have comparable English receptive vocabulary sizes (Pino Escobar et al., 2018). Increased exposure to the weak language contributes to the development of that language (Hoff & Ribot, 2017), but it does not negatively affect the development of other languages.

A similar trend was found in children with communication disorders. Previous studies have shown that children with communication disorders are capable of multilingualism without negatively affecting their social, linguistic, and cognitive abilities (McNamarra, 2018). In several studies, multilingual children with communication disorders were found to perform just as well as monolingual children across language, social, and cognitive tests (Kay-Raining Bird et al., 2016; Lund et al., 2017; Ohashi et al., 2012; Dai et al., 2018; Rezzonico et al., 2015). Despite the presence of slight variations, such as multilingual children with autism spectrum disorder (ASD) showing slight advantages in vocabulary while monolingual children with ASD showing slight advantages in the development of first words and receptive language ability, these differences were not significant (Lund et al., 2017).
Despite the evidence that exposure to multiple languages does not hinder language development in children with or without communication disorders, some parents, teachers, speech-language pathologists, and even medical professionals may still be unaware that children with communication disorders are capable of being multilingual (Soto & Yu, 2014; Jegatheesan, 2011). With the best of intentions, these misinformed families and service providers often abandon multiple languages and limit their children to just one. Children with communication disorders are already at a disadvantage when it comes to communication, but they are limited even further if they are not given access to or supported in a commonly used language within their natural environment.

**Current Situation of AAC in the Philippines**

AAC is a relatively new practice in the Philippines (Chua & Gorgon, 2019), and the entry of an educational and outreach program called the TINIG AAC Project in 2014 marked the rise of AAC awareness in the country. This project facilitated the development of support systems for Filipinos with CCN through (a) establishing local research on AAC, (b) guiding local policy-making by establishing an AAC special interest group within the Philippine Association for Speech Pathologists, (c) providing continuing education and training opportunities related to AAC for Filipino speech-language pathologists (SLPs), and (d) providing outreach through the distribution of AAC systems and provision of AAC services for disadvantaged Filipinos with CCN (Manalansan et al., 2018).

With the emergence of the TINIG AAC Project in 2014, Filipino SLPs gained access to post-professional training in AAC. This continuing education program runs once a year for ten months, and it focuses on the theoretical coursework in the first half and clinical
mentorship in the second half of the program (TINIG AAC Project, n.d.-a). Parallel to the
continuing education arm of this project is its outreach program, where each SLP enrolled in
the program is partnered with an underprivileged Filipino with CCN who will receive an
AAC system for free (TINIG AAC Project, n.d.-a). The SLP goes through the continuing
education program while working with the recipient (TINIG AAC Project, n.d.-a). The
TINIG AAC Project has since produced 52 AAC specialists and donated 52 AAC systems to
underprivileged Filipinos with CCN (TINIG AAC Project, n.d.-b).

Despite the increasing awareness of AAC in the country, AAC service delivery in the
Philippines is an area of speech-language pathology with a paucity of literature (Bondoc et
al., 2017). As of 2018, there are only five research studies related to AAC in the Philippines
(Manalansan et al., 2018), and only one is currently published. In addition to the lack of
research studies, there are no available Tagalog AAC systems in the market (Chua, 2017). A
Tagalog manual communication board with core vocabulary words was created by Chua
(2017) based on pre-existing word corpora which can be used as a basis for a basic Tagalog
page set. However, this page set has not been pilot tested. To date, no other research-based
page set for Tagalog exists (Chua, 2017).

The lack of a Tagalog AAC system leads Filipino SLPs to prescribe English AAC
systems instead. While programming Tagalog words into AAC systems is possible,
limitations still exist, such as inaccurate speech output due to the lack of a supported Tagalog
text-to-speech engine and lack of rate enhancement strategies (e.g., no support for word
prediction in Tagalog). The absence of a Tagalog AAC system poses a challenge in
promoting multilingualism in Filipino AAC communicators as they have limited means to express themselves in Tagalog.

Parents’ and Teachers’ Perceptions and Practices around Multilingualism for Children with Communication Disorders

Despite evidence suggesting that multilingualism does not negatively affect development, Gutierrez-Clellen (1999) noted that parents of children who have language disorders are concerned that learning two languages might be too difficult or cause further delay. In addition to that, Yu (2009) noted that the majority of parents of bilingual children in their study stopped using their native language around their children when they were diagnosed with a disability because they held the assumption that English is a prerequisite for acquiring special education services and interventions for their child.

In contrast, some parents are empowered to pursue multilingualism as they see the value and purpose of each language in their lives: using English as the language to communicate with the rest of the world and their native language as the language to stay connected with their cultural and religious roots (Jegatheesen, 2011). However, despite having positive attitudes toward multilingualism, parents’ beliefs are sometimes inconsistent with their language practices (Howard et al., 2021).

Decision-making regarding language use and exposure in multilingual families is multifaceted. In a study by Howard et al. (2021), parents reported the following factors affecting their language practice decisions: communication with extended family, advice received from practitioners, the severity of their child’s communication disorder, and the importance of developing English proficiency. Unfortunately, some parents have to deal with misguided
health and/or education professionals restricting their language choices to English to avoid “confusing” the child further (Yu, 2013; Jegatheesen, 2011).

A qualitative study by Pickl (2011) found that for a teacher to include a child with CCN’s language and culture in class, the teacher must display interest and openness toward other cultures. Besides educating parents regarding the benefits of multilingualism, teachers should also encourage students to use both home and school languages (Tönsing & Soto, 2020). Professionals should also consult families regarding language choices (Soto & Yu, 2014) to maintain consistency with person-centered care.

According to the sociocultural theory of learning, language development and social development go hand in hand, and for a child to fully participate in activities and interactions with others, the child must have access to the languages used within these contexts (Soto & Yu, 2014). For children with CCN, whose opportunities for communication are already limited to some degree, restricting access to only one language when they live in a bilingual environment further limits their opportunities for interacting with family members, peers, and other people in the community (McNamarra, 2018).

**The Rationale for this Study**

The language context in the Philippines is highly complex. At the same time, more and more Filipinos are gaining access to AAC systems and services. Supporting multilingualism for Filipino AAC communicators is challenging due to the lack of Tagalog AAC systems in the market. Exploring how multilingualism is viewed by Filipino parents and teaching professionals of AAC communicators can help provide background information that can inform service providers in developing intervention plans and strategies suited to the AAC
communicators’ needs. To date, no study has explored how Filipino parents and teaching professionals view multilingualism within the context of AAC.
Methodology

Main Aim

The study's main aim is to explore Filipino parents' and teaching professionals’ perspectives on their experiences with multilingualism and AAC implementation for their child or student with CCN who are regularly exposed to at least two languages: English and their native language (e.g., Tagalog).

Sub-aims

The sub-aims of the study are as follows:

- To describe parents’ language choices and practices with their children who use AAC
- To describe teaching professionals’ language choices and practices with their students who use AAC
- To describe factors that influence parents’ language choices and practices with their children who use AAC
- To describe factors that influence teaching professionals’ language choices and practices with their students who use AAC

Research Design

The study was approved by the Institutional Review Board of San José State University. Very little is known about Filipino parents' and teaching professionals’ experiences with multilingualism and AAC. Therefore, a focus group methodology was chosen to explore this phenomenon in more detail qualitatively. Focus groups are a type of group interview wherein interactions between participants are viewed as important sources of information (Finke et
al., 2009), and they are a suitable approach to studying the perceptions of a group of
individuals regarding specific issues (Vaughn et al., 1996; Krueger & Casey, 2015).

It was established that the language context and service provision in this population are
complex, and it is expected that there will be varying experiences and opinions within the
groups. Unlike one-on-one or group interviews, focus groups allow for interaction among
participants, which may provide richer data that reflects individuals' perceptions and the
groups’ interactions (Vaughn et al., 1996; Krueger & Casey, 2015). In addition to reporting
their experiences, participants may also reflect on their experiences and clarify their views
during the member check at the end of the discussion (Vaughn et al., 1996; Krueger &
Casey, 2015).

Traditionally, focus groups are conducted face-to-face. Because this study was conducted
during the COVID-19 pandemic, the focus groups were held online in the interest of safety
and convenience. Previous studies have employed online focus groups asynchronously
through online discussion boards (Tönsing et al., 2018; Finke et al., 2009; Caron & Light,
2016; McNaughton et al., 2008). In contrast, the proposed study aims to replicate the
mechanics of face-to-face focus groups by conducting the discussions synchronously over
Zoom, an online video conferencing platform. Previous research suggests that Zoom is a
viable tool for collecting qualitative data due to its ease of use, cost-effectiveness, data
management features, and security options (Archibald et al., 2019). The use of an online
video conferencing platform allowed participants from various locations to join the
discussion with ease and within the safety of their homes.
Material Development

A letter of invitation and a digital flyer were created for recruitment. Both documents contained details regarding the selection criteria, the focus groups themselves, and a link to a questionnaire for interested participants. This questionnaire was hosted on Qualtrics, and it contained biographical questions, questions related to the selection criteria, and questions related to languages used and AAC systems used. A consent form was also created based on the Institutional Review Board of San José State University guidelines. The focus group protocol was created based on guidelines by Vaughn et al. (1996).

Participants

The letter of invitation and the digital flyer were sent to the Philippine Association of Speech Pathologists’ (PASP) AAC Special Interest Group (SIG). The PASP AAC SIG sent the invitation letter and flyer to their members. The invitation and flyer were also emailed to schools and therapy centers with publicly available email addresses accessed from the PASP UNITES directory. The flyer was also shared with the following Facebook groups: PASP AAC Special Interest Group, SPED Pilipinas, and TINIG AAC Project.

Participants were selected according to the following criteria:

- Filipino parent or teaching professional of a child with special needs
- Can understand and speak Tagalog and/or English
- The parent or teaching professional’s child/student must be below 18 years of age
- The parent or teaching professional’s child/student has received AAC intervention in the past
- The parent or teaching professional’s child/student has a high-tech AAC system (e.g., Proloquo2Go or TouchChat on iPad, Cough Drop on iPad/tablet, other speech-generating devices)

A total of 12 respondents completed the online demographic questionnaire attached to the invitation and digital flyer. The respondents were separated into two groups: professionals and parents. The date and time of the focus groups were finalized through an online poll, which was sent via email to all respondents in both groups. Then, a consent form was sent to all respondents to finalize their participation in the focus group discussion. One respondent indicated that they could not join the focus group due to prior commitments. Three respondents did not sign the consent form. A total of eight participants consented to take part in the study. However, the research team was unable to contact two of these respondents. Therefore, only six participants were able to attend the focus groups. A summary of participant demographics is provided in Table 2.

**Procedures**

All participants completed a background information questionnaire. A script was developed for the moderation of the focus groups. The script started with welcoming the participants, followed by a brief description of the purpose of the focus group as described in the invitation letter. Each participant was allowed an opportunity to introduce themselves. Included in the script were procedural information, such as the expected time frame, encouragement to share freely despite differing opinions, and lastly, the request to keep confidentiality on all matters shared. Open-ended questions and follow-up questions about AAC and multilingualism were also outlined in the script.
Table 2
Participants’ Demographic Information

<table>
<thead>
<tr>
<th>Age/Gender</th>
<th>Location</th>
<th>Highest Education</th>
<th>Language/s Understood</th>
<th>Language/s Used</th>
<th>Relation to AAC Communicator</th>
<th>Self-rating of Knowledge in AAC</th>
<th>Self-rating of Skills in AAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>50/F</td>
<td>Suburban</td>
<td>Bachelor’s degree</td>
<td>Cebuano, English, Ilonggo, Tagalog</td>
<td>Cebuano, English</td>
<td>Parent of AAC Communicator</td>
<td>Good (3)</td>
<td>Good (3)</td>
</tr>
<tr>
<td>45/F</td>
<td>Urban</td>
<td>Bachelor’s degree</td>
<td>English, Tagalog, French</td>
<td>English, Tagalog, French</td>
<td>Parent of AAC Communicator</td>
<td>Fair (2)</td>
<td>Fair (2)</td>
</tr>
<tr>
<td>35/M</td>
<td>Urban</td>
<td>Bachelor’s degree</td>
<td>Tagalog, English</td>
<td>Tagalog, English</td>
<td>Speech-Language Pathologist</td>
<td>Good (3)</td>
<td>Good (3)</td>
</tr>
<tr>
<td>27/F</td>
<td>Suburban</td>
<td>Some graduate school</td>
<td>English, Tagalog</td>
<td>English, Tagalog</td>
<td>Speech-Language Pathologist</td>
<td>Good (3)</td>
<td>Good (3)</td>
</tr>
<tr>
<td>25/F</td>
<td>Suburban</td>
<td>Bachelor’s degree</td>
<td>English, Tagalog</td>
<td>English, Tagalog</td>
<td>Speech-Language Pathologist</td>
<td>Very Good (4)</td>
<td>Very Good (4)</td>
</tr>
<tr>
<td>51/F</td>
<td>Urban</td>
<td>Professional degree</td>
<td>Tagalog, English, Cebuano, Hiligaynon</td>
<td>Hiligaynon, Tagalog, English</td>
<td>Teacher of an AAC Communicator</td>
<td>Good (3)</td>
<td>Good (3)</td>
</tr>
</tbody>
</table>

One focus group for professionals and one for parents were scheduled according to the time convenient for the participants. The parent focus group ran for approximately 45 minutes, while the professional focus group ran for 60 minutes. Both sessions were recorded for the purposes of transcription. The student researcher moderated and followed the focus group protocol script (see Appendix) in welcoming the participants, allowing them to introduce themselves, and providing procedural information. The student researcher then asked questions and provided each participant with an opportunity to respond and discuss. The participants were asked to provide their input on the following themes: (a) their language choices and practices with their child/student who uses AAC, and (b) factors that affected their language choices and practices with their child/student who uses AAC. Follow-up
questions were provided as appropriate. The student researcher wrote down notes as the participants shared their responses. The student researcher then summarized the key points, read them aloud at the end of the focus group, and allowed the participants to clarify and revise their input as a member check. After the focus group discussion, a follow-up demographic questionnaire was sent to all participants. A final member check was conducted via email after data analysis.

Data Analysis

Data analysis followed a process adapted from Vaughn et al. (1996), Thomas (2003), and McNaughton et al. (2008). In the first phase, the participants’ contributions from the focus groups were unitized. The second phase involved developing coding themes based on the data and coding the unitized responses. The third phase entailed listing and defining the coding themes and subthemes and checking the coding accuracy of unitized responses. A reliability check was conducted in the fourth phase, which included reconciling disagreements and re-coding as needed. The fifth and final phase involved the final analysis of the data to ensure that the analysis relates to the aims of the study. A detailed description of the data analysis process is described below.

A research assistant transcribed each of the recorded focus groups verbatim on a spreadsheet, except for utterances in Tagalog, which the student researcher translated. Then, the student researcher checked the transcriptions and translations for accuracy.

The first phase of data analysis entailed the unitization of participants’ responses. The student researcher and primary investigator went through the transcriptions together and split
the participants’ responses into smaller units of text as appropriate. The unitization of responses was done to allow the research team to assign codes to smaller segments of text.

The second phase of data analysis entailed the inductive descriptive coding of the unitized data, a process adapted from Thomas (2003). In the first cycle of coding, the student researcher and the primary investigator developed themes through inductive descriptive coding of the parent text. The student researcher then coded the professional group text individually and met with the primary investigator to discuss the accuracy of the coding of the professional group text. The research team concluded that the initial code developed was too specific and could be categorized as subthemes. As a result, a second cycle of coding was conducted to identify more general themes. In the second cycle of coding, the student researcher and primary investigator identified general themes and recoded the parent group text. Then, the student researcher coded the professional group text using the identified general themes. The primary investigator was then consulted for the accuracy of the professional group text coding.

The third phase of data analysis entailed listing and defining the themes and subthemes and checking the accuracy of the coding of the transcripts. The student researcher gathered the themes and subthemes into a separate spreadsheet and discussed the definitions with the primary investigator. The definitions are outlined in Table 3. The research team then went through the transcripts again to check the coding accuracy for each unitized response using the definitions of the themes and subthemes.
<table>
<thead>
<tr>
<th>Theme/Subtheme</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAC device characteristics</td>
<td>Anything that references the features of an AAC device, or lack thereof</td>
</tr>
<tr>
<td>Limitations of AAC device</td>
<td>Anything that references the lack or inadequacy of features of the AAC device</td>
</tr>
<tr>
<td>Personalization</td>
<td>Anything that references the customization of the AAC device to fit the needs of the AAC user</td>
</tr>
<tr>
<td>AAC technology catering to the English language</td>
<td>Anything that references current AAC technology features that only benefit those who speak English</td>
</tr>
<tr>
<td>Limitations of AAC in Tagalog</td>
<td>Anything that references the lack or inadequacy of features of the AAC device as it relates to the Tagalog language</td>
</tr>
<tr>
<td>AAC user characteristics</td>
<td>Anything that references the internal variables of the individual who uses AAC</td>
</tr>
<tr>
<td>Complex communication needs (CCN)</td>
<td>Anything that references an AAC user's limitations in coping with everyday communication situations by means of speech alone</td>
</tr>
<tr>
<td>Behavior challenges</td>
<td>Anything that references behaviors produced by an AAC user that affects AAC intervention</td>
</tr>
<tr>
<td>Capabilities</td>
<td>Anything that references what an AAC user is able to do</td>
</tr>
<tr>
<td>Personal preferences</td>
<td>Anything that references an AAC user's personal preferences</td>
</tr>
<tr>
<td>Identity</td>
<td>Anything that references an AAC user's identity</td>
</tr>
<tr>
<td>Communication Competence</td>
<td>Anything that references an individual's ability to effectively and efficiently convey thoughts, opinions, feelings, and information to a variety of listeners across contexts</td>
</tr>
<tr>
<td>Strategic competence</td>
<td>Anything that references an individual's ability to develop compensatory strategies to allow them to communicate effectively even within restrictions</td>
</tr>
<tr>
<td>Linguistic competence</td>
<td>Anything that references an individual's mastery of a linguistic code</td>
</tr>
<tr>
<td>Operational competence</td>
<td>Anything that references an individual's proficiency in AAC system use</td>
</tr>
<tr>
<td>Social/pragmatic competence</td>
<td>Anything that references an individual's knowledge, judgment, and skill in the social rules of communication</td>
</tr>
<tr>
<td>Environmental Factors</td>
<td>Anything that references external variables that affect the AAC user and service delivery</td>
</tr>
<tr>
<td>COVID-19 Pandemic</td>
<td>Anything that references the effects of the COVID-19 pandemic on the AAC user and their family</td>
</tr>
<tr>
<td>Community characteristics</td>
<td>Anything that references particular attributes of the community in which the AAC user lives in</td>
</tr>
<tr>
<td>Language exposure</td>
<td>Anything that references the ambient language of the AAC user</td>
</tr>
<tr>
<td>Resources</td>
<td>Anything that references materials, supplies, or media that contribute to an AAC user's language exposure or lack thereof</td>
</tr>
<tr>
<td>Theme/Subtheme</td>
<td>Definition</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Language/s used at home</td>
<td>Anything pertaining to the language used within the home of the AAC user</td>
</tr>
<tr>
<td>Language/s used outside of the home</td>
<td>Anything pertaining to the language used outside of the home of the AAC user</td>
</tr>
<tr>
<td>Multimodal AAC</td>
<td>Anything that references the use of various combinations of modes of communication, such as speech, AAC (high-tech or low-tech), gestures, or signs</td>
</tr>
<tr>
<td>Opportunity barriers</td>
<td>Anything that references limitations on AAC intervention and/or opportunities for communication</td>
</tr>
<tr>
<td>Practice barrier</td>
<td>Anything that references limitations on AAC intervention and/or opportunities for communication brought about by lack of use, practice, or access to AAC by the communication partners</td>
</tr>
<tr>
<td>Knowledge barrier</td>
<td>Anything that references limitations on AAC intervention and/or opportunities for communication brought about by lack of knowledge in AAC by the communication partners</td>
</tr>
<tr>
<td>Skill barrier</td>
<td>Anything that references limitations on AAC intervention and/or opportunities for communication brought about by lack of skills in AAC by the communication partners</td>
</tr>
<tr>
<td>Preferred language</td>
<td>Anything that references a language that is favored over others</td>
</tr>
<tr>
<td>English as the primary language</td>
<td>Anything that references English as the main language being used</td>
</tr>
<tr>
<td>English is easier than Tagalog (or other Philippine languages)</td>
<td>Anything that references English as a language that is easier to learn as compared to Tagalog or other Philippine languages such as Cebuano, Bisaya, or Ilonggo</td>
</tr>
<tr>
<td>English as the mode of instruction</td>
<td>Anything that references English as the language used in educational institutions</td>
</tr>
<tr>
<td>Taglish as the primary language</td>
<td>Anything that references Taglish (code-switching between Tagalog and English) as the main language being used</td>
</tr>
<tr>
<td>Tagalog as the primary language</td>
<td>Anything that references Tagalog as the main language being used</td>
</tr>
<tr>
<td>English as a universal language</td>
<td>Anything that references English as the language that is considered the standard for communicating across cultures</td>
</tr>
<tr>
<td>English is more beneficial</td>
<td>Anything that references English as a language that provides more benefits to a person</td>
</tr>
<tr>
<td>Service delivery</td>
<td>Anything that references the various methods of providing AAC assessment and intervention</td>
</tr>
<tr>
<td>Telepractice</td>
<td>Anything that references the provision of services through the internet</td>
</tr>
<tr>
<td>Modeling</td>
<td>Anything that references modeling as a technique in intervention/service delivery</td>
</tr>
<tr>
<td>Home program</td>
<td>Anything that references the provision of services in the house of the client</td>
</tr>
<tr>
<td>Assessment</td>
<td>Anything that references the process of evaluating an AAC user prior to determining the course of intervention</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Anything that references professionals working together with a parent or another professional when providing services</td>
</tr>
</tbody>
</table>
The fourth phase is a reliability check. The reliability check was conducted by a blinded member of the research team. The student researcher numbered the unitized responses and utilized a random number generator (https://www.random.org/) to select 20% of the unitized responses for the reliability check. The blinded research team member was provided a copy of the definitions of themes and subthemes and was given access to a separate spreadsheet containing the randomly selected unitized responses from the original transcripts. An initial reliability score of 43% was obtained.

The research team reviewed the reliability coding. After looking at agreements and disagreements, it was agreed upon that similar coding themes should be collapsed, and large units of text should be further unitized for more accurate coding. Subthemes referring to primary languages and language of instruction under the preferred language theme were re-coded under the theme Language Exposure, subthemes Language/s Used at Home or Language/s Used Outside of the Home. The theme Preferred Language was then changed to Language Beliefs, and its definition was updated. The subtheme Limitations of AAC in Tagalog was abolished, and unitized messages coded under this subtheme were re-coded under the more general subtheme Limitations of AAC. The theme Environmental Factors was abolished, and unitized messages coded under this theme were re-coded under other themes. The theme Communication Competence was abolished, and unitized messages coded under this theme were re-coded under the theme AAC User Characteristics and subtheme Capabilities. A summary of the revisions and re-coding is visualized in Figure 1. The revised list of themes, subthemes, and definitions can be found in Table 4. The research team reached a 100% consensus on the coding during the review.
Figure 1
*Summary of Revisions and Re-coding*

<table>
<thead>
<tr>
<th>Original Coding</th>
<th>Re-coded as</th>
</tr>
</thead>
</table>
| Theme: Preferred language  
Subtheme: English as the primary language | Theme: Language exposure  
Subtheme: Language/s used at home OR Language/s used outside the home |
| Theme: Preferred language  
Subtheme: Tagalog as the primary language | Theme: Language exposure  
Subtheme: Language/s used at home OR Language/s used outside the home |
| Theme: Preferred language  
Subtheme: Taglish as the primary language | Theme: Language exposure  
Subtheme: Language/s used at home OR Language/s used outside the home |
| Theme: Preferred language  
Subtheme: English as the mode of instruction | Theme: Language exposure  
Subtheme: Language/s used at home OR Language/s used outside the home |
| Theme: Preferred language  
Subthemes: English is easier than Tagalog (or other Philippine languages), English is more beneficial, English as the universal language | Theme: Language beliefs  
Subthemes: English is easier than Tagalog (or other Philippine languages), English is more beneficial, English as the universal language |
| Theme: AAC device characteristics  
Subtheme: Limitations of AAC in Tagalog | Theme: AAC device characteristics  
Subtheme: Limitations of AAC |
| Theme: Environmental factors  
Subtheme: Community characteristics, COVID19 pandemic | This theme was abolished altogether. All three unitized messages coded under environmental factors were re-coded under other themes. |
| Theme: Communication competence  
Subtheme: Linguistic competence, operational competence, strategic competence, social/pragmatic competence | Note: The communication competence theme was abolished and re-coded under the following:  
Theme: AAC user characteristics  
Subtheme: Capabilities |
<table>
<thead>
<tr>
<th>Theme/Subtheme</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AAC device characteristics</strong></td>
<td>Anything that references the features of an AAC device, or lack thereof</td>
</tr>
<tr>
<td>Limitations of AAC device</td>
<td>Anything that references the lack or inadequacy of features of the AAC device</td>
</tr>
<tr>
<td>Personalization</td>
<td>Anything that references the customization of the AAC device to fit the needs of the AAC user</td>
</tr>
<tr>
<td>AAC technology catering to the English language</td>
<td>Anything that references current AAC technology features that only benefit those who speak English</td>
</tr>
<tr>
<td>Tagalog AAC system</td>
<td>Anything that references a ready-made AAC device or system in Tagalog/Filipino</td>
</tr>
<tr>
<td><strong>AAC user characteristics</strong></td>
<td>Anything that references the internal variables of the individual who uses AAC</td>
</tr>
<tr>
<td>Complex communication needs (CCN)</td>
<td>Anything that references an AAC user's limitations in coping with everyday communication situations by means of speech alone</td>
</tr>
<tr>
<td>Behavior challenges</td>
<td>Anything that references behaviors produced by an AAC user that affects AAC intervention</td>
</tr>
<tr>
<td>Capabilities</td>
<td>Anything that references what an AAC user is able to do</td>
</tr>
<tr>
<td>Personal preferences</td>
<td>Anything that references an AAC user's personal preferences</td>
</tr>
<tr>
<td>Identity</td>
<td>Anything that references an AAC user's identity, such as personality or background</td>
</tr>
<tr>
<td><strong>Language exposure</strong></td>
<td>Anything that references the ambient language of the AAC user</td>
</tr>
<tr>
<td>Resources</td>
<td>Anything that references materials, supplies, or media that contribute to an AAC user's language exposure or lack thereof</td>
</tr>
<tr>
<td>Language/s used at home</td>
<td>Anything pertaining to the language used within the home of the AAC user, including primary or native language/s</td>
</tr>
<tr>
<td>Language/s used outside of the home</td>
<td>Anything pertaining to the language used outside of the home of the AAC user, including the language of instruction in school and therapy</td>
</tr>
<tr>
<td><strong>Language beliefs</strong></td>
<td>Anything that references beliefs or perceptions about any language</td>
</tr>
<tr>
<td>English is easier than Tagalog (or other Philippine languages)</td>
<td>Anything that references English as a language that is easier to learn as compared to Tagalog or other Philippine languages such as Cebuano, Bisaya, or Ilonggo</td>
</tr>
<tr>
<td>English as a universal language</td>
<td>Anything that references English as the language that is considered the standard for communicating across cultures</td>
</tr>
<tr>
<td>English is more beneficial</td>
<td>Anything that references English as a language that provides more benefits to a person</td>
</tr>
<tr>
<td>Multimodal AAC*</td>
<td>Anything that references the use of various combinations of modes of communication, such as speech, AAC (high tech or...</td>
</tr>
<tr>
<td>Theme/Subtheme</td>
<td>Definition</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Opportunity barriers</td>
<td>Anything that references limitations on AAC intervention and/or opportunities for communication</td>
</tr>
<tr>
<td>Practice barrier</td>
<td>Anything that references limitations on AAC intervention and/or opportunities for communication brought about by lack of use, practice, or access to AAC by the communication partners</td>
</tr>
<tr>
<td>Knowledge barrier</td>
<td>Anything that references limitations on AAC intervention and/or opportunities for communication brought about by lack of knowledge in AAC by the communication partners</td>
</tr>
<tr>
<td>Skill barrier</td>
<td>Anything that references limitations on AAC intervention and/or opportunities for communication brought about by lack of skills in AAC by the communication partners</td>
</tr>
<tr>
<td>Service delivery</td>
<td>Anything that references the various methods of providing AAC assessment and intervention</td>
</tr>
<tr>
<td>Telepractice</td>
<td>Anything that references the provision of services through the internet</td>
</tr>
<tr>
<td>Modeling</td>
<td>Anything that references modeling as a technique in intervention/service delivery</td>
</tr>
<tr>
<td>Home program</td>
<td>Anything that references the provision of services in the house of the client</td>
</tr>
<tr>
<td>Assessment</td>
<td>Anything that references the process of evaluating an AAC user prior to determining the course of intervention</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Anything that references professionals working together with a parent or another professional when providing services</td>
</tr>
</tbody>
</table>

*This theme does not have subthemes.*
The fifth phase involved checking the data and ensuring that the analysis relates to the research question and aims of the study. In reviewing the main and sub-aims of the study in conjunction with the data acquired, it was agreed upon that all seven overarching themes were directly related to the study aims.
Results

After careful analysis of the data, seven overarching themes emerged: (a) language exposure, (b) service delivery, (c) AAC device characteristics, (d) AAC user characteristics, (e) opportunity barriers, (f) language beliefs, and (g) multimodal AAC (ranked in order of most discussed to least discussed). The theme ranking, frequencies, and percentages are all summarized in Table 5. A total of 181 unitized messages (68 from the parent group and 113 from the professional group) were drawn from the data across two focus groups. Theme rankings for the parent group and professional group are summarized in Tables 6 and 7, respectively. The frequency count for each theme and subtheme is found in Table 8.

Table 5
Overall Theme Ranking with Frequencies and Percentages

<table>
<thead>
<tr>
<th>Rank</th>
<th>Theme</th>
<th>( f )</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Language exposure</td>
<td>62</td>
<td>34.25%</td>
</tr>
<tr>
<td>2</td>
<td>Service delivery</td>
<td>32</td>
<td>17.68%</td>
</tr>
<tr>
<td>3</td>
<td>AAC device characteristics</td>
<td>30</td>
<td>16.57%</td>
</tr>
<tr>
<td>4</td>
<td>AAC user characteristics</td>
<td>25</td>
<td>13.81%</td>
</tr>
<tr>
<td>5</td>
<td>Opportunity barriers</td>
<td>13</td>
<td>7.18%</td>
</tr>
<tr>
<td>6</td>
<td>Language beliefs</td>
<td>11</td>
<td>6.08%</td>
</tr>
<tr>
<td>7</td>
<td>Multimodal AAC</td>
<td>8</td>
<td>4.42%</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>181</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>
Table 6  
*Professionals’ Theme Ranking with Frequencies and Percentages*

<table>
<thead>
<tr>
<th>Rank</th>
<th>Theme</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Language exposure</td>
<td>38</td>
<td>20.99%</td>
</tr>
<tr>
<td>2</td>
<td>Service delivery</td>
<td>28</td>
<td>15.47%</td>
</tr>
<tr>
<td>3</td>
<td>AAC device characteristics</td>
<td>18</td>
<td>9.94%</td>
</tr>
<tr>
<td>4</td>
<td>AAC user characteristics</td>
<td>10</td>
<td>5.52%</td>
</tr>
<tr>
<td>5</td>
<td>Language beliefs</td>
<td>9</td>
<td>4.97%</td>
</tr>
<tr>
<td>6</td>
<td>Opportunity barriers</td>
<td>8</td>
<td>4.42%</td>
</tr>
<tr>
<td>7</td>
<td>Multimodal AAC</td>
<td>2</td>
<td>1.10%</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td>113</td>
<td><strong>62.43%</strong></td>
</tr>
</tbody>
</table>

Table 7  
*Parents’ Theme Ranking with Frequencies and Percentages*

<table>
<thead>
<tr>
<th>Rank</th>
<th>Theme</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Language exposure</td>
<td>24</td>
<td>13.26%</td>
</tr>
<tr>
<td>2</td>
<td>AAC user characteristics</td>
<td>15</td>
<td>8.29%</td>
</tr>
<tr>
<td>3</td>
<td>AAC device characteristics</td>
<td>12</td>
<td>6.63%</td>
</tr>
<tr>
<td>4</td>
<td>Multimodal AAC</td>
<td>6</td>
<td>3.31%</td>
</tr>
<tr>
<td>5</td>
<td>Opportunity barriers</td>
<td>5</td>
<td>2.76%</td>
</tr>
<tr>
<td>6</td>
<td>Service delivery</td>
<td>4</td>
<td>2.21%</td>
</tr>
<tr>
<td>7</td>
<td>Language beliefs</td>
<td>2</td>
<td>1.10%</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td>68</td>
<td><strong>37.57%</strong></td>
</tr>
</tbody>
</table>
Table 8
Frequencies and Percentages for Each Theme and Subtheme

<table>
<thead>
<tr>
<th>Theme/Subtheme</th>
<th>f Parent Group</th>
<th>f Professional Group</th>
<th>f Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AAC device characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limitations of AAC devices</td>
<td>10</td>
<td>12</td>
<td>22</td>
<td>12.15%</td>
</tr>
<tr>
<td>Personalization</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2.21%</td>
</tr>
<tr>
<td>AAC technology catering to the English language</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>1.10%</td>
</tr>
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32
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**Language Exposure**

This theme emerged as the most discussed theme upon data analysis from both parent and professional focus groups. The researchers defined this theme as “anything that references the ambient language of the AAC user.” All participants across both focus groups discussed this theme. A total of 62 unitized messages were coded under this theme, and it accounted for 34.25% of the data. Three subthemes were identified: (a) language/s used at home, (b) language/s used outside of the home, and (c) resources.

**Language/s Used at Home**

The researchers defined this subtheme as “anything that references the language/s used within the home of the AAC user, including primary or native language/s.” All participants across both focus groups discussed this subtheme. A total of 23 units were coded under this subtheme, accounting for 12.71% of the entire data set.

All participants reported that their child or students are routinely exposed to English and at least one local language at home (e.g., Tagalog, Bisaya, Cebuano).

[We use] English and Filipino [Tagalog], of course. I speak normally like I am now, with Taglish, so I always have done that even at home. And since we’ve always been lucky enough to have a helper, she’s Bisaya actually, but she’s [also] Filipino you know, and [she uses] English. But it's always been a multilingual home. (P2)
Because we're Filipinos, we're multilingual by nature, we are exposed to at least two languages so it's not that hard in the beginning … by the time they open their eyes, and the babies of this kind of parents are already exposed in two languages at least, you know. Pagkapanganak pa lang [as soon as they are born] I mean diba [right], we call them baby and not sanggol, diba [baby, right]? (P4)

One participant further reported that not all of the household members of their students are proficient in English.

Observe the structure in the house[hold]. Not only [do] you have parents, but also we have other members of the family, and your caretaker, and not all of them can speak the [sic] English well. (P6)

Several professionals described their students’ primary language/s. Some are primarily English speakers, others are Tagalog speakers, and some use Taglish.

I have uh, it's really funny because I have kids who also know English, so when I do my um therapy, I have categories for them, so these are the ones who really have English as their primary language. There are the ones who kind of speak both, Taglish, so Taglish is like usually English syntax but [with] Tagalog words. So I have this one student who is just like that, and he he says things like um “Teacher Pau kain [eat] bread,” for example. So if you think about it, that's actually the English syntax, but he mixes it with Tagalog uh words, so that's that I'm having a tricky time with that kid. [laughs] And then the other one, the other one is really pure Tagalog, so he he his brain speaks in Tagalog. So I have those, um, three categories of kids that I do AAC with. (P3)

One participant further described parent preferences.

And then a lot of the times actually, they [parents] uh- they say “We use English and Tagalog,” but but they prefer using one or the other. (P5)

**Language/s Used Outside of the Home**

The researchers defined this subtheme as “anything that references the language/s used outside of the home of the AAC user, including the language of instruction in school and therapy.” All participants across both focus groups discussed this subtheme. A total of 20
unitized messages were coded under this subtheme, accounting for 11.05% of the entire data set.

All participants in the parent group reported that English is the language of instruction in school.

Well, the schools that he goes to are here in Manila, so the instruction’s in English. (P2)

One parent participant reported that their child's class currently does not have a Filipino (Tagalog) language subject.

He [child] belonged to the preschool class, so there weren’t any Filipino [Tagalog] subjects. (P1)

In contrast, another participant reported that their child attends a Filipino (Tagalog) language subject in his class.

And they have Filipino [Tagalog] class in school. They'll [teachers] be able to ask those basic questions like "Ilang taon ka na [How old are you]," all of them can answer just those- even [if] he'll still say fourteen in English. He won't say, you know, "labing apat [fourteen]," but at least he'll kind of understand. (P2)

One parent participant reported that aside from English, their child’s classmates use the local language at school.

I think Cebuano [Philippine language] gets inserted [in their conversations] sometimes, but they do speak English in school. (P1)

One parent participant reported that their child is routinely exposed to Tagalog in the community, which prompted them to continue using Tagalog at home.

If, for example, he’s [child] walking outside with his yaya [nanny] and let’s say heaven forbid he gets lost inside the supermarket or the mall, the security guard is going to say, “Anong pangalan mo [What is your name]?” and if he cannot answer, which you know is already difficult enough, he also has to communicate it in a different way. The guard is not going to know that he can’t [speak]. He has to either write it or sign. But when the guard asks “Anong pangalan mo [What is your name],”
he might get even more overwhelmed with those kinds of instructions. So at least he’s aware of the language that’s there, and [that’s] because we consciously try to use some of it at home. (P2)

One professional participant reported that their students get exposed to Taglish, wherein Tagalog words are used in English syntax and grammar.

I think some of them [communication partners] use Tagalog words in using the English syntax and grammar. (P4)

Three professional participants discussed that English is the language of instruction for their students.

Um, I've had experiences where the parent would tell me, “Teacher [redacted], I want him to learn English because that's what they speak in school.” (P3)

Three professional participants reported working on Tagalog with students who attend a school that offers a Filipino language subject.

These parents would want us to teach the children Filipino [Tagalog] only because Filipino [Tagalog] is being taught or used in the school. (P4)

One professional participant reported using Tagalog during service delivery for their Tagalog-speaking students.

For that student that I have who is [an] AAC [user], who primarily speaks in Tagalog, how do I interact with him I I I speak to him in in complete Tagalog. (P3)

Two professional participants reported that most of their students’ have more language exposure in English than in other local languages.

[It’s] sometimes very hard for these kids to adjust, especially on the Filipino [Tagalog] subject because of the less exposure [to Tagalog]. (P6)

I think yeah, um, just to reiterate, Teacher [redacted] said exposure is very, very important because I feel like right now, 90% of the kids' exposure is all in English. (P5)
**Resources**

The researchers defined this subtheme as “anything that references materials, supplies, or media that contribute to an AAC user’s language exposure or lack thereof.” All but one participant across both focus groups discussed this subtheme. A total of 19 unitized messages were coded under this subtheme, accounting for 10.50% of the data set.

One participant in the parent group reported that most instructional materials from their child’s school and their child’s media exposure, including iPad apps, TV shows, and readily available books, were all in English.

I only gave him [child] the ones [books] that we had which were handed down from my nephews and nieces which were all English … and of course, he watched shows. There was Dora, and Baby Einstein … his instructional materials [from school] were mostly all in English … and at the time, apps were only geared for English … there’s no [more] Batibot [Tagalog children’s show] unlike back when we were children … there aren’t really anymore Filipino [Tagalog] children’s educational programs. (P2)

In line with this, two professional participants also reported that their students are mostly exposed to TV shows in English.

Even [those who live in the] provinces, they have TV, and most of the shows they can watch, especially for the kids, are mostly in English. (P6)

I noticed a lot of the things they search for [on the internet] are in English. Like a lot of kids, even in the provinces, actually watch YouTube, and for sure, the things that they watch in YouTube are in English. (P5)

Two professional participants reported that most of the materials they present during service provision are in English, with one participant explaining further that this is due to the lack of Tagalog resources.

Majority of materials- of my materials are English, mostly because there aren’t enough Tagalog resources. (P3)
A total of three participants agreed that there are not enough Tagalog resources, such as research, books, or other media, with one participant adding that it would be easier if there were more Tagalog resources available.

When P3 and P6 was mentioning the lack of resources [in Tagalog] to us, P6 was right in saying that [we lack resources in Tagalog], really because we live- ma’am kasi [because] because we live in the Philippines and so research- it’s really not one of our priorities at this time. (P4)

If we actually just had the resources for Tagalog, maybe it would have been easier for children [to learn Tagalog], even in media, if children were more exposed to more Tagalog media. (P3)

In discussing the lack of Tagalog resources, one participant reported a strategy they use to cope with this issue.

Directly translating English flashcards to the child [is something I do], but that’s it. I really wish we had more AAC-friendly resources for Filipino/Tagalog-speaking kids. (P3)

Service Delivery

This theme is ranked second in the list of most discussed themes. The researchers defined this theme as “anything that references the various methods of providing AAC assessment and intervention.” A total of 32 unitized messages were coded under this theme, accounting for 17.68% of the data. All but one participant discussed this theme. Five subthemes emerged from data analysis: (a) collaboration, (b) assessment, (c) telepractice, (d) modeling, and (e) home program.

Collaboration

The researchers defined this subtheme as “anything that references professionals working together with a parent or another professional when providing services.” A total of 16
unitized messages were coded under this subtheme, accounting for 8.84% of the data. All but one participant discussed this subtheme.

One parent participant discussed collaboration between their child’s teachers and service providers.

They [teachers] were introduced to the [sic] AAC by [redacted] … they all went to the [therapy] center so they would learn [about AAC]. (P1)

All professional participants discussed collaboration. Three participants reported actively collaborating with their student’s parents, teachers, and other communication partners such as classmates.

So I ask the family, “What's the languages you speak at home? What's the primary language that you want the child to learn?” And after getting the answers from the family, I go to the school, and I ask the school, “What is your teaching instruction there? What's the language that you use?” (P3)

So, what's really hard, because for us we have to train not only the the student, but we have also to educate the parents, the caretaker, all of the family members who are in that structure. I do school shadowing. I have to educate also students [classmates] as well as parents and the teachers at the regular school. (P6)

Two participants reported that not all settings provide opportunities for collaboration.

The school sometimes don't do the adjustment unless you can put your kid or the student that you have in a school where you can work together … but not all school, if you observe, not all school can cater to that. (P6)

On a structural level, you know we need some more systems in place to make interdisciplinary measures better … it’s really different if you’re really just working in a clinic [as opposed to working in a school]. (P3)

Two participants reported challenges in collaborating with parents.

Now the challenging thing, though, is getting the family on board, and what I’m realizing now, at the start, you know, at the start, the family needs to be a part of the orientation as much as possible. They need to be a part of the evaluation- everything. They have to be there at the start. It can’t be a separate thing at all, but they have to be
involved with the intervention process to make sure the generalization is working. (P3)

One participant reported challenges in collaboration, specifically with language practices.

So [laughs] sometimes that's a disjoint [in language practices], and I have to tell the parents, “Okay, you have to speak English at home more because that's what your goal is, for him to speak English.” (P3)

One participant reported specific benefits from collaborating with parents.

When I'm having the session, it's mommy and daddy, and you know their son, and we're all doing AAC together, and they have had better progress compared to the other students I've had whom I don't get to see their parents every day. (P3)

**Assessment**

The researchers defined Assessment as “anything that references the process of evaluating an AAC user prior to determining the course of intervention.” Three participants from the professional group discussed this subtheme. A total of 8 unitized messages were coded under this subtheme, accounting for 4.42% of the data.

Three participants discussed using assessment to help in deciding language use and practices.

When we do our assessment and evaluation, and we graph out the therapy program, part of our training is to collect all this data … I wondered the considerations of two [languages]- of choosing or teaching the second language. It really depends on the cognitive level of the child and the functionality of it … I would like to overemphasize what P6 was mentioning … our primary job is for them [students] to communicate the best and easiest way possible. So, choosing the language for that [to use/teach the student] um should keep or reconcile with that need [to communicate the best and easiest way]. Having said that um, the cognition um, the cognitive level, and the functioning level, also the present needs, and the age of the child would also come into play. (P4)

Let’s see first the structure of the family, the location of where the kid is located at. He may be in a barrio [town] or a town where most of the people talk [in] the mother tongue, the local dialect that they have. Or he could be in a structure where most of the family members speak in English. We have to look at that. Then, once we focus
on those factors, we may be able to introduce what is the right program for the kid. (P6)

One participant discussed using assessment to help decide what teaching methods to use with the child.

So uh, the teaching method needs to be consider according to the category that they have or the level that they have because if you observe there are other students now that we do inclusion or include in our regular set up and we need to adjust. (P6)

**Telepractice**

The researchers defined this subtheme as “anything that references the provision of services through the internet.” A total of 5 unitized messages were coded under this subtheme, accounting for 2.76% of the data. One parent and three professional participants discussed this subtheme.

One professional participant described how they conducted their therapy session.

Most- I mean all sessions that I do right now are done by uh virtual learning or online, so it's typically sharing the screen of what I want them to talk about or ask about, and then usually parents or caregivers are beside them to guide them on um how would they [student] express themselves or communicate themselves through pictures or through the device. (P4)

One parent participant and two professional participants reported the benefits of telepractice.

Um, the one thing that's good about this quarantine is we do it [therapy] online, so I get to learn unlike when unlike when we go to a center [private practice] … I didn't know how to do that [use the AAC] before, so I was taught during this pandemic [online]. (P1)

Um, with uh, with my experience with my students right now in the in the pandemic, so everything is teletherapy even though like they're at home, they have more opportunities to practice, and the family is more involved. (P5)
**Modeling**

The researchers defined this subtheme as “anything that references modeling as a technique in intervention/service delivery.” A total of 2 unitized messages were coded under this subtheme, accounting for 1.10% of the data. One parent and one professional participant discussed this subtheme.

One parent participant described how they model for their child.

> For example, I ask for green oil [stomach ache remedy], so [on the AAC device] I press “I have stomach ache,” [and] “I need green oil.” So I do it for him. Just so that-to encourage him to to use the AAC. (P1)

One professional participant described how they use modeling in face-to-face therapy.

> When I used to do face to face- because before, when I interacted with my kids who were AAC users, I don't just speak to them verbally, but I make sure that I also stay beside them and then use the AAC with them and if I say something other than saying it verbally I also try to say it using their AAC. So like, um, other than interacting with them, I also really use that opportunity to model, to model um using the AAC system. (P5)

**Home Program**

The researchers defined this subtheme as “anything that references the provision of services in the house of the client.” One unitized message was coded under this subtheme, accounting for 0.55% of the data. One professional participant discussed this subtheme.

One professional participant described the challenges of implementing a home program.

> I’ve been doing the at-home program for almost seven years, so I do go to the house of my students, and yes, one of the biggest problem, not only by us but also especially the one doing the session [therapy] center-based or even during online, it’s the consistency of our program. (P6)

**AAC Device Characteristics**

The researchers defined this theme as “anything that references the features of an AAC device, or lack thereof.” A total of 30 unitized messages were coded under this theme,
accounting for 16.57% of the data. All but one participant discussed this theme. Four subthemes emerged from the data: (a) limitations of AAC devices, (b) personalization, (c) AAC technology catering to the English language, and (d) Tagalog AAC.

**Limitations of AAC Devices**

The researchers defined this subtheme as “anything that references the lack or inadequacy of features of an AAC device.” A total of 22 unitized messages were coded under this theme, accounting for 12.15% of the data. All participants discussed this subtheme.

All parents and one professional participant discussed the challenges of AAC devices being delicate in relation to their child/student’s behavior difficulties.

Well, if there were other ways of helping [redacted] to communicate aside from the AAC [device], you know [other ways] side by side with the AAC, I would I would like that very much because you know all AAC lang [only], and he is in the middle of a tantrum, AAC is no longer a an option to communicate because the tantrum is there. He's just going to throw the AAC, he's just going to break the AAC. (P1)

All parent participants mentioned that the AAC device’s preprogrammed vocabulary is insufficient for their needs.

So, we used pictures in the AAC. Um, he doesn't like using the AAC because, of course, it's not complete … and some things he does, something he needs, aren't there. So what he does is point to the word “menu” [on the device], so we can add, or we can add in a page and add those things that he wants to add [to the AAC device]. (P1)

And it’s interesting to hear what you’re [P1] saying about the devices and the frustration because that’s exactly why we didn’t go with a dedicated AAC because there are so many things that they know that aren’t in the photos [in the AAC device], and it’s difficult to pre-empt [prepare in advance] them. I mean, I spend- I used to spend evenings trying to find those things [pictures for vocabulary words] and put them into the computer photo base [photo gallery]. (P2)

One parent mentioned that when typing Tagalog words into any AAC app, including text-to-speech apps, the device does not pronounce the words correctly.
I think there’s a limit on the language for the AACs, for sure. If you type in like P1 was saying, if you type in kain [eat] and you press it, it won’t understand—translate verbally [pronounce] into the right word. So even now that we don’t use the touch to talk speaking thing [text-to-speech], sometimes he’ll [child] ask me “wait lang [please wait],” but he’ll type it. (P2)

The same parent mentioned that they had to disable the keyboard’s autocorrect feature on all their devices because their child will type in Tagalog, and the device will attempt to correct it using English words.

I had to disable the predicting spelling on all of our device, phones, iPads, the computer … they [child] had to type the colors [in Tagalog], it [the device] would always correct it so of course … you think “Oh, it’s wrong, it’s wrong,” so you automatically go with whatever they suggest. So I really just took it all out. If he wants to type out “wait lang [please wait]” or “sandali lang [just a moment]” or whatever, it’ll work. (P2)

One parent discussed possibly trying a native language version of the current AAC app that they use.

Um, if [pause] I don't want another, you know [different AAC app], I want it in one device, in one app. If TouchChat could put Cebuano there, then that would be good, but to get out of the way and you, you know to have another device, to have another app just so that we could teach Cebuano, um, I think that would be overwhelming for [redacted] because you know um I know it would be hard for him so siguro [maybe] if if TouchChat would develop um language [pauses] languages there, then I would be open to that, but adding more you know [another device], then there will be another lesson, another um [pause] it would be too much. He would need to be taught to operate again. (P1)

One professional participant discussed challenges in providing their Tagalog-exposed and Tagalog-speaking students with an AAC system that caters to their needs.

I've had challenges with trying to give them [multilingual students] something that's more functional for and respectful for the language that they speak … For my student who uses a AAC, who is Taglish in his head and uses Tagalog in his head, their quality of living in terms of participation isn't as easily accessible with the AAC system compared to the students that I have who primarily speak in English. (P3)
One professional participant discussed the challenges of generalizing AAC use for Tagalog speakers due to a mismatch between their primary language and the AAC device’s language.

This student has a personality, so when he tells a joke, he tells it in Tagalog, and that's one of the reasons why it's tricky to generalize the use of AAC, at least for them at the family level it is because there are some things that he just really can't express in Tagalog himself [using the AAC device]. (P3)

One professional participant discussed the need for local language versions of current AAC apps.

But you know one of my frustrations also is wishing that TouchChat and Proloquo [AAC applications] had the Tagalog function … Yeah, I wish it was really that easy too, [to] customize a complete AAC app that matches the kid's needs, um because we can come up with a tailored program in speech therapy, but when it comes to tailor-making the device itself, the app, the thing that they use to communicate, I think program wise it's doable. Technology-wise we're going to need more linguists, and we're gonna need more researchers to make that possible. (P3)

Two participants discussed the disadvantages of using an AAC device’s synthetic speech.

Um, with the AAC device, the tone and the prosody [of the synthetic speech] is actually very limited as opposed to, let's say, are you [speaking] Ilonggo, or Ilonaa [Philippine ethnicity and language]. So it's [tone and prosody] very different from when you go to say Cebu or or Samar [Philippine provinces] or speak Waray [Philippine language] and, diba [right] so um not only that the the semantics of it or the syntax of it [is different], it's this non-verbal parts of it [that’s different]. (P4)

But for kids and adults who use AAC, their inner voice might not match the robotic voice they actually hear on the iPad … I'm like, “paano kaya yung mga Filipino [how about the Filipinos]? how about the Filipinos?” You know when you're Cebuano, Tagalog, or Ilokano, may attitude din kasi dun eh [there is an attitude involved in it]. There's a personality in how you sound and how you say things, and AAC as a device can't exactly, you know, [laughs] cover that. But then, that's already the technology involved. 'Yun na ‘yun eh [It is what it is], voice tech lang [it’s the voice technology only]. (P3)
**Personalization**

The researchers defined this subtheme as “anything that references the customization of the AAC device to fit the needs of the AAC user.” A total of 4 unitized messages were coded under this theme, accounting for 2.21% of the data. One parent and one professional discussed this subtheme.

One parent reported that they work with their child’s speech-language pathologist in customizing their child’s AAC device when programming new words.

Yeah, we've been adding- actually, his [the child's] AAC has been being personalized like I can request from Teacher [redacted]. Like, say, “Teacher, this is what he does.” And you know we placed situations there also, and then aside from the situations, we also place what happens if you do this, what should you not do, what should you do. So it it became easier now because we have shortcuts. For example, we have a button that says, um, “I am feeling,” so the button says “feeling,” so it says, “I feel headache.” So then we have to touch the next button, which says “I need.” It goes directly to the folder, it's a specialized folder it's for- it goes to, for example, if he has stomachache, he can go directly to “I need green oil [home remedy]” or “I have long hair” then “I need haircut.” So we've we've been personalizing it and and that's what's good about this. (P1)

One professional participant reported adding Tagalog words and phrases to their Tagalog-speaking student’s AAC despite the difficulty.

When we did his AAC [assessment] uh, I had to do a lot of programming in TouchChat to somehow make it Tagalog and to make the predictive feature Tagalog, but it was honestly just so hard. (P3)

One professional participant reported using the AAC device’s recording function to record Tagalog phrases to ensure correct pronunciation.

Um, and his family is pretty comedic, so they would tell me, “Teacher [redacted], it was so funny how the TouchChat was saying this and that [mispronunciations in Tagalog words].” And you know, we've tried this thing where they would, you know, record the Tagalog phrases [in the device]. (P3)
AAC Technology Catering to the English Language

The researchers defined this subtheme as “anything that references current AAC technology features that only benefit those who speak English.” Two unitized responses were coded under this subtheme, accounting for 1.1% of the data. Only one participant discussed this subtheme.

One participant discussed commercially available AAC apps catering to English speakers.

For the kids who really speak English, it's easy because the technology that we have right now really caters to the English language. We, here in the Philippines, we're usually using TouchChat and Proloquo2Go, so I love [emphasis] the fact that there's grammar there and you can you can you know, really, it helps the kid learn about grammar as well. Most of the time, they learn the core words and the fringe words, but when it comes to the little words like prepositions and articles, I love how those programs can really help. (P3)

One participant discussed the disadvantages of AAC technology catering to English speakers in relation to their Tagalog-speaking students.

I mostly feel for my student who speaks Tagalog and my student who speaks in Taglish. Um, because compared to my other AAC students, who are already primarily English users, they are able to get more access to participation [through the AAC device]. You know, better participation, critical participation. (P3)

Tagalog AAC Systems

The researchers defined this subtheme as “anything that references a ready-made AAC device or system in Tagalog/Filipino.” Two unitized responses were coded under this subtheme, accounting for 1.1% of the data. Two participants discussed this subtheme.

One participant talked about Chua’s (2017) manual Tagalog communication board.

The most that I came close to when it comes to Tagalog AAC was, um, Ms. Ellyn Chua’s communication manual board ‘coz I think she did a study right where she had
Filipino [Tagalog] core words, and I had to ask her for help on that and if I could get access to it and that's what I've been using for my kid who speaks Taglish, the Tagalog manual board. (P3)

One participant mentioned an AAC program that may be offering Filipino (Tagalog).

But I believe, uh, forgive me if I'm right [sic], but I think that CoughDrop already has Filipino [Tagalog] um, I'm not really sure. (P4)

**AAC User Characteristics**

The researchers defined this subtheme as “anything that references the internal variables of the individual who uses AAC.” All but one professional participant discussed this theme. A total of 20 unitized messages were coded under this theme, accounting for 11.05% of the data. Five subthemes emerged from the analysis of data: (a) complex communication needs (CCN), (b) capabilities, (c) behavior challenges, (d) identity, and (e) personal preferences.

**Complex Communication Needs (CCN)**

The researchers defined this subtheme as “anything that references an AAC user's limitations in coping with everyday communication situations by means of speech alone.” A total of 7 unitized messages were coded under this subtheme, accounting for 3.87% of the data. Two parents and one professional participant discussed this subtheme.

Two parents described their child’s CCN.

My son is non-verbal, and he could not read or spell yet … but then he tries to say them [the words], but the words, he cannot shape [articulate] the words. So, it’s really hard to add the words [to his AAC device] when you cannot understand what it is that he wants you to add. (P1)

One professional described their students’ CCN and how this affects their language choices and practices.

He has some language challenges. He has cerebral palsy, so even how much we can go with language, receptive and expressive language, there's there's some limitations
in it. So how I interact with them really depends on, aside from the therapy techniques, it's really fluid with what they speak. (P3)

**Capabilities**

The researchers defined this subtheme as “anything that references what an AAC user is able to do.” A total of 10 unitized messages were coded under this theme, accounting for 5.52% of the data. One parent and two professional participants discussed this subtheme.

Four participants reported on their child/student’s capabilities.

My son is 14 … he’s also non-verbal, but he reads so he can type, and he uses pictures a lot … If he couldn't type the word, or I couldn't understand what it was, he would find [the photo] himself, go to the photo gallery, look through the phone, and point … He didn't remember the spelling, but he was pointing and pointing, so the pictures helped … He would go to the photos and show me and [so] I would take pictures of everything, the bathroom, the sink, a water glass mga ganon [those things] and that helped a lot. (P2)

I have a number already of students who have had a long period of intervention with AAC who can successfully navigate different situations using their devices, especially for those who are, in a way, high-functioning. I mean, cognitively, they could understand or are aware. But those that are, let’s say, mid-functioning or low-functioning, they could also use it around the house, especially for direct requests and with prompts. (P4)

One participant commented on another participant’s response, suggesting that the child might be able to read.

I think possibly your son can read. The fact that he told you to put in the photo of a menu and you didn't know, you know, I think he either identified something on the word menu [on the device], or he can read it, you know. (P2)

**Behavior Challenges**

The researchers defined this subtheme as “anything that references behaviors produced by an AAC user that affects AAC intervention.” A total of 4 unitized messages were coded under this subtheme, accounting for 2.21% of the data. Only parent participants discussed this subtheme.
All parent participants described their child’s behavior challenges.

Um, he has tantrums. He is undergoing puberty, and he is- I don't know his mental health in this pandemic has gone downwards, and um, we know he has terrible tantrums. (P1)

One participant reported stopping their child’s schooling due to behavior challenges.

[Redacted] joined the mainstream [program], but he's been [in] pre-school all through and through so- but we stopped schooling now just this this year because of the tantrums that happened during online um school. The tantrums were terrible, so we had to stop. (P1)

Identity

The researchers defined this subtheme as “anything that references an AAC user's identity, such as personality or background.” Three unitized messages were coded under this subtheme, accounting for 1.66% of the data. Only one participant discussed this subtheme.

One professional participant discussed the native language as part of the AAC user’s identity.

Um, I think it's something that we have to respect [students being multilingual]. This is a part of their heritage and their background that needs to be respected and honored. Um, and probably coming from a place where the- I've grown to also love the mother tongue at least where, you know, it's part of your identity as a Filipino, and that's something that you don't want to disregard. (P3)

One professional participant commented on how AAC communicators’ personalities may not be reflected through the use of an AAC device.

It's the intona-, the pros-, the intonation. I've actually been reflecting a lot on how AAC exposes a person's personality. You know how they have an inner voice, how a student or a person has an inner voice and then our outer voice [pauses] maybe for us, for people who speak normally, our inner voice and our outer voice sounds the same [but not for AAC communicators]. (P3)
**Personal Preferences**

The researchers defined this subtheme as “anything that references an AAC user’s personal preferences.” Only one unitized message was coded under this subtheme, accounting for 0.55% of the data. One professional participant discussed this subtheme, referencing their student’s preference for typing over using icons on the AAC device.

But when during the session uh, if he is being requested to do- to construct a sentence using that characters [icons] or the the the pictures that we have in the AAC [device], he would draw- I think he would do some behavior to avoid [using the icons]. Um, he wants to do spelling rather than contracting it using the tools [icons] that we have … that's the observation that I have with my student. Um, he doesn't want to do it using the other other um method [using icons], but he rather use- he would more [emphasis], or rather he's um, [it’s] more easy for him to construct the sentence by typing word by word [using the keyboard]. (P6)

**Opportunity Barriers**

The researchers defined this theme as “anything that references limitations on AAC intervention and/or opportunities for communication.” A total of 13 unitized messages were coded under this theme, accounting for 7.18% of the data. All but one participant discussed this theme. Three subthemes emerged from the data: (a) practice barrier, (b) knowledge barrier, and (c) skill barrier.

**Practice Barrier**

The researchers defined this subtheme as “anything that references limitations on AAC intervention and/or opportunities for communication brought about by lack of use, practice, or access of AAC by the communication partners.” A total of 6 unitized messages were coded under this subtheme, accounting for 3.31% of the data. All but one participant discussed this subtheme.
One parent reported that their child was not allowed to bring an AAC device in his classroom for a time.

Also, because we live in the Philippines, and at that time, he wasn't allowed to have a device in his classroom, we encouraged handwriting also and just played with typing. (P2)

Two professionals reported that their students use their AAC device mostly only during speech therapy.

So that's when it gets tricky, um, only because you know these students would readily associate the use of the device with me [laughs] primarily during our speech sessions. Uh, but uh again, it's something uh uh a goal [to generalize AAC use in other settings] that has been being implemented [during sessions] every time. (P4)

Three professional participants discussed the challenges in generalizing AAC use with other family members.

I think that another factor that makes it difficult to like generalize the use of the device, also with like the other members of the family, when I again asked caregivers or the yayas [nannies], “Okay, how about um when he interacts with his brothers or his sister how does that go?” They don't, they don't really um [pause] use the system with him [student] or sometimes they don't even use the other um low tech systems with him. (P5)

**Knowledge Barrier**

The researchers defined this subtheme as “anything that references limitations on AAC intervention and/or opportunities for communication brought about by lack of knowledge in AAC by the communication partners.” A total of 6 unitized messages were coded under this subtheme, accounting for 3.31% of the data. One parent and one professional participant discussed this subtheme.

One parent discussed knowledge barriers exhibited by their child’s teachers.

Even before, when they [SLPs] suggested to use PECS [a low-tech AAC tool] with [redacted] at two years old um, they [school teachers] didn't want it because it they
feel that it would um make [redacted] be non-verbal. It would encourage him to to use the pictures instead of saying the words. (P1)

One parent discussed knowledge barriers exhibited by their child’s classmates in school, adding that while their son’s classmates understand his condition, they tend to infantilize him even if he is older than them.

They [classmates] were told that [redacted] needs it for communication, and the the iPad doesn't have any other app except for the AAC, and all of the other apps are hidden like those built-in in the iPad. They're all hidden in a folder. It's just the AAC there, so they [classmates] stopped being curious [about the AAC device] … And you know they baby him. The class babies him ‘cause even if he's the tallest [and oldest] in class, he is still the baby. Like they baby him, they understand [that he cannot speak]. They come and go like, a new batch comes, and they [former classmates] go to the the grade school, but [redacted] stays behind [in preschool] and um they they understand [redacted]. (P1)

Two participants discussed their concerns about multilingualism.

I'd really rather not introduce another language to [redacted] because I think that would just confuse him. Um, everybody speaks to him in English anyway. It's all therapies [in English], so I mean adding another language I think would be um too much. (P1)

If we choose another language to think or to to teach, uh, only because again, if it's a language altogether, there might be language structures that are needed to be reteached or to be re-oriented. And so um it's going to be um, in a way it's going to be uh, not cost-effective for the family to introduce another language for them to learn … so really it's um, it's a matter of um, again on my my perspective as an interventionist, it's to really uh have the language where the child can easily communicate with. And if it's something that along the way, in intervention, that we, if increasing the language is possible, then you know it's a good thing for them to communicate themselves much better. (P4)

Skill Barrier

The researchers defined this subtheme as “anything that references limitations on AAC intervention and/or opportunities for communication brought about by lack of skills in AAC by the communication partners.” Only one unitized message was coded under this subtheme,
accounting for 0.55% of the data. One professional participant discussed this subtheme, reporting on a specific skill barrier exhibited by family members.

I'm having a pretty hard time with like even generalizing the use of the AAC within the home, ‘cause um if based on what the parents or sometimes it's not the parents sometimes it's the caregivers or the yayas [nannies] who join our session, that when they have their therapy session yeah the kid uses it maybe um they can navigate pretty well, but when they, you know, need to sign off and then he's doing his other household activities, they're [members of the household] still having a hard time like implementing and having him use the AAC system. (P5)

**Language Beliefs**

The researchers defined this theme as “anything that references beliefs or perceptions about any language.” A total of 11 unitized messages were coded under this theme, accounting for 6.08% of the data. All but one participant discussed this theme. Three subthemes emerged from data analysis: (a) English is easier than Tagalog (or other Philippine languages), (b) English as a universal language, and (c) English is more beneficial.

**English is Easier than Tagalog (or other Philippine languages)**

The research team defined this subtheme as “anything that references English as a language that is easier to learn as compared to Tagalog or other Philippine languages such as Cebuano, Bisaya, or Ilonggo.” A total of 7 unitized messages were coded under this subtheme, accounting for 3.87% of the data. All but one participant discussed this subtheme.

Five participants discussed how English is easier to teach and learn.

Um, we use, sometimes we use one words like “ayaw [I don't want/like]” but not much because he knows [the Tagalog] one is like difficult in terms of spelling. And like, for example, when you say “lingkod [sit],” that's harder than saying “sit” or spelling “sit,” so we often [go] for English because, well, the words are easier to spell. [For example] “Tagag [run], run. Kaon [eat], eat.” (P1)
I would like to point out that, um, really—because here—again, here we live in the Philippines, that's true. Learning syntax for English for Filipino children are much easier than learning in Tagalog … so another thing um because in English words, it's much easier to articulate than, let's say some, especially some of the core words that you would say with Tagalog, which costs—which consists [of] a lot of syllables already just compared to single single-syllable English word. So in terms of treatment, the way that we think about it, because we wanted to the children to speak uh use verbal language, we would rather have it— I mean on my perspective I would rather have um them say it in English. It is more successful. Um, it's easier to achieve … Um, it's really going to be very more challenging [to learn Tagalog], let's say when certain vocabulary themes or structure of sentences have been introduced to the child. (P4)

**English as a Universal Language**

The researchers defined this subtheme as “anything that references English as the language that is considered the standard for communicating across cultures.” Two unitized messages were coded under this subtheme, accounting for 1.1% of the data. Only one professional participant discussed this subtheme.

So based on my observation, uh, I did work with special kids for over ten years now, and uh, I think we try to we mostly [to] use English because [it’s] the universal language. (P6)

**English is More Beneficial**

The researchers defined this subtheme as “anything that references English as a language that provides more benefits to a person.” Two unitized messages were coded under this subtheme, accounting for 1.1% of the data. Two professional participants discussed this subtheme.

If you observe our Filipino culture, our Filipino mentality, we would rather have our kids speak in English because it sounds like high-end [air quotes] uh it's nice for them, parang sosyal [it's classy] o parang ang ganda [or like it's beautiful] to to see the kids are speaking [English] especially fluently. So I think [this] adds more to uh the culture that we have. That's why we choose more of English as a means or a tool uh to help our kids use that as their expressive language. (P6)
Yeah, I agree, P6. Um, you know, because we are in a colonial mentality [the perception of ethnic and cultural inferiority and a form of internalized racial oppression], where English is the end-all, be-all [laughs]. (P4)

Multimodal AAC

The researchers defined this theme as “anything that references the use of various combinations of modes of communication, such as speech, AAC (high-tech or low-tech), gestures, or signs.” A total of 8 unitized messages were coded under this theme, accounting for 4.42% of the data. All but two participants discussed this theme. No subthemes were created for this theme.

One parent participant discussed their use of various modes of communication for their child.

He [child] has a lot of modalities, thankfully, because we had to subject ourselves and him to them [different modalities] just to have redundancies and so that in case we're not at home or there's no device, he'll have a way to communicate. So so, we did make sure that the handwriting was focused on in school, and then we all kind of know basic modified sign language for for things like “help,” “thank you,” and “good morning,” “good evening,” “good night.” He can just walk into the room and [shows an example of a sign for good morning], you know, he's greeting everyone pala [Tagalog clitic particle]. So um, so we do have those modes, but it is difficult. (P2)

One parent participant expressed regret in not using other modes of communication early on in their child’s intervention journey.

So we started late on the pictures, which I regret, because you know I see now the importance of using pictures to communicate, especially with [redacted] who has apraxia, so there’s really no- the chance of him talking isn’t there. (P1)

One participant reported trying to find other modes of communication for their child.

I've actually been trying to find other ways [for communication] aside from the AAC [device], but with pictures, it's so hard ‘cause you know we tried it before and um the pictures are getting plentier and plentier, and you know you segregate them according to, you categorize them and you you put them in in a box. Like these are all food, but there are a lot of foods, and pictures get lost. Pictures get, they get shuffled, and it-
pictures are so hard. So actually, I want, I would have wanted something aside from the AAC [device] to use, especially during like difficult moments. (P1)

One parent participant emphasized the benefits of multimodal communication.

The more the ways of communicating, the better ‘cause we also do that. We can write, we can type, we can shout, we can physically [moves hands outwards], you know. I think to give them as many [modalities] as they can, as we can, as as are acceptably possible, is is a helpful thing. (P2)

One parent participant discussed the need for other modes of communication to be accessible in public spaces.

It would be helpful to have uh uh a device and a modality that everyone could use so that in the classroom, there's already a machine [AAC device] there [that everyone can use]. It would be great if someone could come up with a hardy, sturdy, not so expensive. It doesn't have to be an iPad every time, [a] machine that could be in many places just like [how] many people know sign language. All of the teachers in the [child’s] school know sign language. So now that it's Zoom- but everyone kind of knows a bit [of sign language] now, thankfully, so that helped a lot. But if there were those machines [AAC devices]. Let's say on a bus stop, you know, you can- so that somebody who doesn't speak can actually use it independently and ask someone next to them and say “para po [please stop; Filipinos say this to ask the bus driver to stop so they can get off]” wherever. (P2)

One professional participant described how she counsels her students’ parents regarding multimodal communication.

I've told the parents before, “You know you could use this [Tagalog manual communication board] at least if he's talking to you in Tagalog and you can understand him, that's fine [not to use the communication board]” because we're always going- we're all, you know, speech or AAC, those are all valid forms of communication. Nothing is higher or lower in terms of value, so if he is able to speak to them in Tagalog and they understand him, then that's fine. Then they don't have to really force him to use the device, but when he starts talking to other people, you know, then- and they can't understand him, then that's when he has to be ready to really use the device to really generalize it. (P3)

One professional participant discussed using low-tech AAC in combination with high-tech AAC with their student.
Well, the good thing [is] that the family was able to think of like, more, or [having] three of back up low-tech devices, low-tech AAC systems for that kid so if ever his iPad is not working, they have other options that they can use to communicate with him. But then, I feel like there is also- with my, with that particular student, he has, there are instances where he prefers the low-tech over the high-tech [AAC]. (P5)
**Discussion**

After analyzing the results, seven overarching themes emerged: (a) language exposure, (b) service delivery, (c) AAC device characteristics, (d) AAC user characteristics, (e) opportunity barriers, (f) language beliefs, and (g) multimodal AAC (ranked in order of most discussed to least discussed). The seven overarching themes relate to the purpose of this study, which is to explore Filipino parents’ and teaching professionals’ perspectives on their experiences with multilingualism and AAC implementation for their child or student with CCN who are regularly exposed to at least two languages: English and their native language (e.g., Tagalog). Specifically, this research sought to describe parents’ and teaching professionals’ language choices and practices with their children/students who use AAC, as well as the factors that influence their language choices and practices with their children/students who use AAC.

These first two themes describe parents' and professionals' language choices and practices. Regarding the first theme, Language Exposure, participants reported language/s used at home and outside of the home and exposure through various resources such as instructional materials and media (e.g., TV, YouTube). In the second theme, Service Delivery, participants reported various approaches to service provision, such as collaborating with parents and other professionals, providing services through telepractice during the pandemic, methods of conducting comprehensive assessments, using specific intervention techniques such as modeling, and providing services in the home through a home program.

The third through sixth themes describe the factors influencing parents’ and professionals’ language choices and practices. In the third theme, AAC Device
Characteristics, the participants reported on the limitations of the AAC device, features such as the ability to personalize and customize the AAC device, current AAC technology catering to the English language, and currently available AAC in Tagalog. Regarding the fourth theme, AAC User Characteristics, the participants reported on their child/student’s CCN, their capabilities and behavior challenges, and aspects of the AAC user’s identity and personal preferences. In the fifth theme, Opportunity Barriers, participants reported on various knowledge, practice, and skill barriers that they or other communication partners around them experience. In the sixth theme, Language Beliefs, participants reported specific beliefs about the English language, such as English being easier and more beneficial than other Philippine languages, and English being the universal language.

Regarding the seventh theme, Multimodal AAC, participants reported using various communication modes, such as speech, high-tech or low-tech AAC, gestures, or signs. This theme provides a further description of their language choices and practices.

**Language Choices and Practices of Parents and Teaching Professionals When Interacting with the AAC User**

In the current study, parent participants reported using at least two languages (e.g., a local language and English), including code-switching (e.g., Taglish), around their child who communicates through AAC. These language practices reflect language policies in place, such as the status of English as both an official language (Phil. Const. art. XIV, § 7) and a language of instruction in the Philippines (Department of Education, 2009). In addition, code-switching, the phenomenon of using one language’s words in another language’s syntax, is also considered a common language practice in the Philippines (Chureson, 2013).
It should be noted that the practice of maintaining all languages that a child is exposed to regularly is aligned with current best practices in language development (Vallance, 2015).

On the other hand, some participants in the current study reported that parents use English only when interacting with their child who communicates through AAC, regardless if their child is exposed to a local language at home or within their community. This suggests a lack of understanding of the benefits of multilingualism and the proliferation of the myth that children with CCN should only learn one language. A previous study on bilingual families of children with ASD noted a similar trend of abandoning the native language in favor of English when interacting with their child (Yu, 2009). The reported language practice of abandoning a language that a child is regularly exposed to is considered detrimental to the child's overall language and social development, as this creates a language barrier for the child within their own home or community (Soto & Yu, 2014).

In this study, professional participants reported that their language choices and practices reflect the preferences of their students and their family members. Some participants reported providing services mainly in Tagalog or Taglish but most reported providing services primarily in English. Some participants also reported working on Tagalog with students who need it, such as those who attend schools that offer a Filipino (Tagalog) language subject. The reported language practices reflect an openness to parental input, which allows for successful communication intervention (Pickl, 2011). Beukelman and Mirenda Participation Model also highlights the importance of client and parental input in AAC intervention (Beukelman & Light, 2020). However, it should be noted that while parent preferences do not always align with evidence-based research, it is still imperative for professionals to listen
to and understand the parents’ concerns on language choices and practices and respectfully guide them towards best practices (Tönsing & Soto, 2020).

**Influencing Factors that Led to Favoring the English Language when Interacting with AAC Communicators**

Language beliefs played a major role in influencing participants to favor the English language over the local language. Participants generally agreed that the English language is easier to teach and learn and is more beneficial for children/students, suggesting a preference for using English with the AAC user. Additionally, two participants reported using only English with the AAC user because learning two languages is “confusing” and “not cost-effective.”

The notion of English being more beneficial likely emerged as a byproduct of having English as a mandated language of instruction in the Philippines (Department of Education, 2009). Success in life and career is generally linked to success in school, and success in school is linked to proficiency in the English language due to its status as a language of instruction in educational institutions. Similarly, previous research in the United States on parents of bilingual children diagnosed with ASD reported that parents view English as necessary for success (Yu, 2009). While the present study was conducted in the Philippines, it should be noted that English is used as the language of instruction in both countries.

The perception of one language being easier than another is complex. Participants reported that spelling words in Tagalog (or other local languages) is more difficult than spelling words in English. However, the sound-symbol correspondence in Tagalog is regular and more consistent, making Tagalog words easier to decode, as there are fewer sounds and more direct correspondence between sounds and letters (Ocampo, 2004) when compared to
English. The argument that spelling is more difficult in Tagalog likely stemmed from Tagalog words being typically multisyllabic. Tagalog is an agglutinative language in that Tagalog words consist of a high number of affixes or morphemes (Baklanova, 2006), which result in multisyllabic words. A comparison of some core words in Tagalog and English may appear to support the argument that Tagalog is more difficult due to its multisyllabic nature.

However, both arguments (English is easier and English is more beneficial) are merely opinions, and these opinions are harmful to children who have CCN. These arguments imply a need to choose one language over another, similar to the argument that learning two languages is “confusing” or that it is “not cost-effective.” However, it is not a matter of choosing one language over another but a matter of encouraging the development of all languages that a child is exposed to at home and within their community (Soto & Yu, 2014). Otherwise, there is a risk of isolating the AAC user from the language communities that they are exposed to (McNamarra, 2018). Furthermore, the argument that learning two languages is “confusing” is a myth and has been debunked by several research findings providing evidence that even children with disabilities are capable of learning two languages (Guiberson, 2013). These language beliefs suggest that there is a general lack of awareness of the benefits of multilingualism, and as a result, the idea that there is a need to focus on only one language is perpetuated.

**Barriers to Using Tagalog or Other Local Languages with AAC Communicators**

Some participants reported efforts in starting or continuing to use Tagalog with their AAC communicators. However, existing Tagalog manual communication boards (Chua, 2017) and speech-generating devices with a Tagalog speech engine (e.g., CoughDrop) lack
the features we typically see in high-tech English, dynamic AAC systems. As a result, participants resort to modifying already existing English AAC systems to fit the needs of their students. Unfortunately, participants in this study also reported challenges in modifying or creating AAC systems that are functional for their students and respectful of the languages they are exposed to. This is similar to the findings of a research study in South Africa, where service providers reported translating pre-programmed vocabulary, adding core words in the local language, and adding word lists in the local language into prediction dictionaries, further elaborating that this process is time-consuming (Tönsing et al., 2018). Designing and programming AAC systems require in-depth language knowledge (Baker & Chang, 2006). While most service providers in the Philippines are proficient in Tagalog and English, not all providers may have the time or expertise to create or modify AAC systems. In fact, in a survey study of SLPs in the Philippines, 76% of respondents reported limited pre-professional training in AAC vocabulary selection and organization (Chua & Gorgon, 2019). The lack of readily available high-tech, dynamic AAC systems in Tagalog and a lack of expertise in creating/modifying AAC systems serve as barriers to teaching or maintaining Tagalog for AAC communicators.

Creating a low-tech AAC communication board in English typically involves referencing an already existing list of core words and integrating family input for vocabulary. However, currently, there is only one research-based list of Tagalog core words, Chua’s Tagalog communication board (2017), and it has not been pilot tested yet. Translating core word lists will also yield an ineffective board, as English core words do not function the same in Tagalog. For example, in English, we could use the word “turn” to mean “my turn” or “your
“turn,” “turn a page,” or “to make a left/right turn.” A direct translation of the word “turn” in Tagalog is “liko.” In Tagalog, “liko” does not account for “taking a turn” while playing a game. While the word “go” in English can be used in many different contexts, it can have two different translations in Tagalog, “punta” as in “to go somewhere” or “alis” as in “to go away.” In addition, merely translating core words does not consider the frequent code-switching in a typical Filipino (Tagalog) conversation.

Participants in this study also reported a scarcity of resources in Tagalog and other local languages, such as instructional materials, research, and media (e.g., educational shows, books, etc.). The lack of instructional resources in Tagalog likely stems from the scarcity of research focusing on Tagalog itself. A scoping review on SLP research in the Philippines revealed a dearth of normative and cross-linguistic data on Filipinos and culturally and linguistically appropriate speech and language assessment tools (Bondoc et al., 2017). Currently, the only research-based monitoring tool in the Philippines that has some information on language milestones is the Early Childhood Care and Development (ECCD) Checklist, which is a checklist used to determine if a Filipino child is developing adequately or is at risk for developmental delays (Early Childhood Care and Development Council, n.d.). Alternatively, the core curriculum for Filipino (Tagalog) and English established by the Philippine Department of Education may be referenced (Department of Education, n.d.). There are no other research-based language development norms available in the Philippines. The scarcity of research and resources in Tagalog and other local languages serves as a barrier for professionals and parents alike who intend to teach or maintain a local language with AAC communicators.
At present, there are no policies, protocols, programs, or systems in place for introducing two languages from birth for both neurotypical children and children with CCN. The only existing program that encourages multilingualism is the Mother Tongue-Based Multilingual Education (MTB-MLE), which the Department of Education implemented in 2009. This mandate requires elementary public school teachers to use the students’ first language as the language of instruction in all subject areas from pre-kindergarten to 3rd grade, except for language subjects Filipino (Tagalog) and English, which are taught as separate subjects focusing on language and literacy (Department of Education, 2009). However, it should be noted that this mandate does not strictly apply to private schools as they are allowed to develop their own curriculum as long as they are in accordance with existing laws and inform the Department of Education (Padilla, 2013). Unfortunately, despite the decrease in the number of private school enrollees, there is still a significant number of children who are enrolled in regular and special education private schools (Hernando-Malipot, 2021) who are likely not benefitting from this mandate. Additionally, this policy fails to account for bilingual language development in early childhood, as it only applies to school-age children.

AAC Practices of Parents and Teaching Professionals

Consistent with recommended practices in AAC intervention, the participants in this study agreed that multimodal communication is beneficial for their children/students. Multimodal communication allows the AAC user to maximize their communication potential (Beukelman & Light, 2020). However, at least one participant expressed regret about not using alternative modes of communication early on with their child. It should be noted that the field of AAC in the Philippines is in its infancy (Chua & Gorgon, 2019), and, likely, the
use of various modes of communication for children with CCN was not as widely practiced a
decade ago as it is now. In addition to that, several factors may have contributed to the
rejection of alternative modes of communication. In a qualitative study on AAC rejection and
abandonment, researchers noted four factors contributing to the rejection and abandonment
of AAC systems: (a) lack of emotional readiness and resilience of parents to implement
AAC, (b) parents’ view of implementing AAC as extraneous work, (c) the child not using the
AAC system for communication, and (d) parent dissatisfaction with the AAC system itself
(Moorcroft et al., 2019).

Participants also reported on the AAC communicator’s capabilities, such as the ability to
read and recognize pictures, and how this allows them to use AAC as a valuable mode of
communication. This suggests that participants are aware of the strengths of the AAC user
and how to use these strengths to the AAC user’s advantage, in line with the principles of
Beukelman and Mirenda’s Participation Model (Beukelman & Light, 2020). Additionally,
participants also reported personalizing AAC devices for the AAC user, which suggests some
awareness of the need to make communicating through the AAC device more meaningful for
the user. In a survey study on AAC success and abandonment, one factor associated with
success in AAC intervention was the degree to which the AAC device was valued as a means
of communication (Johnson et al., 2006).

Participants reported providing/receiving services via telepractice, a form of service
delivery through the internet that was pushed to the forefront when the COVID-19 pandemic
emerged (Philippine Association of Speech Pathologists, 2020). Both the parent and
professional groups reported increased collaboration through telepractice, which suggests a
positive effect of this form of service delivery. A previous research article on AAC interventions for children within the family environment highlighted the importance of involving family members in all aspects of the AAC intervention process to ensure the successful implementation of evidence-based practice in all contexts (Granlund et al., 2008).

**Barriers to AAC Intervention**

At least one participant in the current study reported that they have worked with teachers who believed that using AAC will prevent the child from developing verbal speech, suggesting the presence of an AAC knowledge barrier in teachers. AAC preventing speech development is a myth debunked by research that further emphasized that AAC may even support speech development (Millar et al., 2006; Schlosser & Wendt, 2008). The teachers’ lack of AAC knowledge suggests a need to further strengthen awareness of the benefits of AAC, especially for those within the education system who may encounter AAC communicators.

Several participants reported difficulties with generalizing the use of AAC at home and in school, suggesting either a lack of communication partners’ buy-in in AAC intervention, lack of collaboration between service providers and communication partners, communication partners’ lack of skill in using the AAC device, or a combination of these factors. This is similar to the results of a survey study in Hong Kong, where parents reported poor generalization of AAC device usage at home, citing influencing factors such as low acceptance of AAC by communication partners, as well as limited knowledge of device operation and maintenance (Siu et al., 2010).
Majority of SLPs in the Philippines work in private practice (Philippine Association of Speech Pathologists, 2020, as cited in PASP Support Team, 2021). As a result, a significant number of children with CCN go to private therapy centers to receive services. This situation suggests that SLPs are generally removed from the education setting. Consequently, most SLPs are unable to effectively and efficiently collaborate regularly with teachers, resulting in challenges with generalizing AAC use in the school setting.

While both parent and professional participants reported an increase in collaboration during the provision of services through telepractice, this may be indicative of a flaw in in-person service delivery in the Philippines. A parent participant reported that while their child had attended services at a therapy center prior to the COVID-19 pandemic, they only learned how to model on their child’s AAC device once service delivery shifted to telepractice. This suggests that there was little to no collaboration during in-person service delivery, consistent with previous research suggesting that the AAC communicator and their family are not always involved or consulted during AAC assessment and intervention (McNaughton et al., 2008).

Not all Filipino parents can accompany their children to in-person speech services, and these parents may employ caregivers to take up that role. This disconnect between the parents and service providers likely results in fewer opportunities for collaboration, impacting AAC intervention negatively. This is in contrast with telepractice, where a family member or caregiver may be required to join the AAC user during service provision. In a survey study involving SLPs who provide telepractice services to AAC communicators, several participants reported the value of telepractice in partnering with and empowering
parents, emphasizing successful collaboration through this type of service delivery (Biggs et al., 2022).

Several participants mentioned that AAC devices are not sturdy enough or are easily damaged. In addition, at least one participant mentioned abandoning the use of an AAC device due to the AAC user repeatedly damaging and rendering the device unusable. To provide further context, most AAC devices in the Philippines are iPads or Android tablets with installed AAC apps, as there are no brand representatives for dedicated AAC devices in the Philippines. Additionally, most AAC devices are self-funded by the AAC user’s family. The practice of self-funding AAC devices in the Philippines contrasts with the current practice of AAC funding in the US, where there are several funding options, such as health benefit programs, Medicare/Medicaid, or school district funding. Consequently, it is understandable that both parents and professionals alike may hesitate to invest in expensive equipment that may be damaged due to maladaptive behaviors.

Notably, several participants reported behavior challenges such as maladaptive behaviors that contribute to difficulties in AAC intervention, further specifying that AAC communicators may damage their AAC devices, rendering them unusable. In contrast with participant reports in this study, a focused review on the effects of AAC on disruptive and aggressive behaviors of students with severe disabilities highlighted several studies that showed the positive impact of AAC on reducing disruptive and destructive behaviors (Lund, 2016). This suggests that there may be a need to reevaluate current practices on behavior management in relation to AAC intervention to overcome this barrier.
The fragility of AAC devices, in combination with reported maladaptive behaviors, appears to prevent AAC communicators from accessing high-tech devices. A meta-analysis reported that high-tech AAC systems appear to be more effective than other picture-based AAC for individuals with ASD (Ganz et al., 2014). In contrast, a more recent systematic review of high-tech AAC interventions noted equal performance to low- and high-tech interventions (Morin et al., 2018). Notably, participants in this study reported using low-tech alternatives when the high-tech AAC device is compromised. AAC intervention is highly individualized, and there is no “one-size-fits-all” solution. The reported practice of using low-tech AAC as an alternative to high-tech AAC is promising, as this suggests individualized AAC intervention and an awareness of the need for multimodal communication.

**Summary of Findings**

From the focus group discussion, seven overarching themes related to the study's aims emerged. Parents and teaching professionals spoke about (a) language exposure, (b) service delivery, (c) AAC device characteristics, (d) AAC user characteristics, (e) opportunity barriers, (f) language beliefs, and (g) multimodal AAC. Clearly, parents and teaching professionals alike considered many factors when making language choices for their child/student who uses AAC. Language beliefs played a significant role in parents’ and teaching professionals’ decisions, with the predominant perception that English is more favorable than the local language. Notably, these perceptions appear to imply the need to choose one language over another, suggesting a lack of support for multilingualism. Additionally, the preference for English seemed to be prompted by the abundance of
resources in this language. Barriers to using Tagalog or other local languages were also discussed, citing the unavailability of resources, research, and AAC systems. Poor generalization of AAC use in other contexts seemed to be reinforced by communication partners’ lack of AAC knowledge and skills, suggesting a need for more positive collaboration between stakeholders and training for communication partners. The struggle with the AAC device’s lack of sturdiness in conjunction with maladaptive behaviors also emerged as a barrier to successful AAC intervention. Based on the results of this study, it was clear that parents and teaching professionals alike did not make decisions about their language choices and practices easily.

This study is the first to have attempted to explore Filipino parents’ and teaching professionals’ perspectives on their experiences with multilingualism and AAC implementation for their child or student with CCN who are regularly exposed to at least two languages: English and their native language (e.g., Tagalog) within the Philippine context. Understanding parents’ and teaching professionals’ perspectives on AAC and multilingualism can assist AAC service providers in understanding parents’ and teaching professionals’ concerns, including the reasons why they choose certain language/s and AAC practices.

This study’s chosen data collection method, focus group discussions, allowed for interaction between the participants. As a result, the current study’s data reflected both the individuals’ perceptions and group interactions. The nature of the focus groups allowed for discussion that was both rich in information and explorative. Both parents and teaching professionals easily understood the focus group questions, and clarifications were easily
provided during the discussion. All participants appeared to freely discuss their views despite disagreements, which shows their investment in the topics at hand.

The process of going through multiple cycles of coding, in combination with a reliability check, strengthened the trustworthiness of the methodology. The coding was enhanced with every cycle, resulting in an authentic analysis of data. Member checking was also conducted as an additional measure to strengthen the analysis. A summary of the findings was emailed to each participant. Four participants responded positively, while the remaining two participants did not respond further.

**Limitations**

Several limitations to this study should be acknowledged. The small sample size of six participants significantly limits the generalizability of the results obtained. However, despite the small sample size, recurring themes were identified, providing insight into Filipino parents’ and teaching professionals’ perspectives on AAC and multilingualism.

The participants in the current study belonged to a particular subset of the population of parents and teaching professionals of AAC communicators, as (a) only parents and teaching professionals of AAC communicators who were aged 0-18 were recruited, (b) only parents and teaching professionals in the Philippines were recruited, (c) only parents and teaching professionals who spoke and understood Tagalog and/or English were recruited, (d) only parents and teaching professionals with access to the internet were included, and (e) all parents and teaching professionals in this study were considered well-educated. This sample is likely biased towards parents and teaching professionals from middle and higher-income
groups, and those from low-income groups are not represented. This sample also does not account for parents and professionals that work with adult AAC communicators.

While precautions such as joint coding and reliability checking were taken to limit bias, the qualitative nature of this study implies that researcher bias may be a weakness. It is possible that the researcher may have influenced some results when facilitating the focus group and interpreting the data.

Finally, the present study relied on focus group discussions to obtain data on parents' and teaching professionals' language and AAC practices, but actual observations were not conducted. Reported language and AAC practices may not accurately reflect their actual practices.

**Implications for Practice**

The findings of this study show a variety of influencing factors that Filipino parents and teaching professionals consider in choosing their language and AAC practices, and this study hopes to increase AAC service providers’ sensitivity to stakeholders’ perspectives around AAC and multilingualism. AAC service providers should integrate stakeholders’ perspectives, beliefs, opinions, and feelings into their practice in order to truly engage in client and family-centered practice (Soto & Yu, 2014).

It is concerning that myths about AAC and multilingualism are still prevalent among parents and teaching professionals, despite research showing that AAC does not hinder speech development (Millar et al., 2006; Schlosser & Wendt, 2008), and children with communication disorders are capable of multilingualism (Guiberson, 2013). This study hopes to encourage AAC service providers to address these harmful myths within their own
practice, especially in a multilingual country like the Philippines, where individuals are expected to speak and understand at least two languages.

The challenge in the generalization of AAC use in non-therapeutic settings is alarming. Positive collaboration between all stakeholders is critical for successful AAC assessment and intervention (Beukelman & Light, 2020). This study hopes to encourage AAC service providers to reflect on their practice and strive to work with all stakeholders to achieve positive outcomes in AAC intervention.

This study has shown that there are systemic barriers to multilingualism, and it hopes to encourage AAC service providers to develop resources in local languages, such as instructional materials. Finally, this study also hopes to encourage AAC manufacturers to work with AAC service providers in developing AAC systems in non-English languages. The market for English AAC systems is already saturated, while some non-English languages, such as Tagalog, are left untouched. For the field of AAC to develop internationally, there is a need to develop more resources and systems in languages other than English.

**Recommendations for Further Research**

The current study recruited parents and teaching professionals from the Philippines. A similar study on parents and teaching professionals of Filipino AAC communicators in the United States may be conducted in order to compare their perspectives with those from the Philippines. Language loss is a common phenomenon in immigrant families (Fillmore, 2000) despite evidence of the benefits of multilingualism (Byrd, 2012). Understanding Filipino
immigrant families’ perceptions on multilingualism and AAC can help AAC practitioners in the United States provide culturally appropriate services for that population.

The current study's findings may guide future research on creating AAC training programs or protocols for Filipino families and caregivers of AAC communicators. At present, there are no established AAC training programs for this population. An AAC training program catering to Filipino families and caregivers may contribute to positive outcomes in AAC intervention.

The current study utilized a focus group methodology as the data collection method. Actual observations of the participants’ interactions with the AAC communicator may supplement and strengthen the data collected in the current study.

Finally, the current study is recommended to be replicated on a larger scale to improve the trustworthiness and generalizability of the data. Different recruitment methods should be explored to reach more people from varying socio-economic and linguistic backgrounds.
Conclusions

This study is the first to have attempted to explore Filipino parents' and teaching professionals’ perspectives on their experiences with multilingualism and AAC implementation for their child or student with CCN who are regularly exposed to at least two languages: English and their native language (e.g., Tagalog) within the Philippine context. Based on data collected from 6 participants, there is a need to address a variety of barriers to successful multilingual AAC intervention, including (a) attitudes about multilingualism, (b) attitudes about AAC intervention, (c) lack of quality collaboration between stakeholders, and (d) systemic barriers such as lack of resources, research, and AAC systems in the local language. Addressing the communication partners’ attitudes about multilingualism and AAC during early intervention may aid in ensuring that children with CCN receive the best and most appropriate services from the beginning. Encouraging positive collaboration between stakeholders may empower parents and other professionals to take up their role as valuable communication partners, ensuring the consistency of the implementation of AAC intervention strategies across all contexts. In order to address the systemic barriers, AAC practitioners are encouraged to create therapeutic materials in the local language and partake in research efforts to help the field of AAC in the Philippines develop further. Finally, AAC service providers and AAC manufacturers are encouraged to explore the possibility of designing linguistically and culturally appropriate AAC systems in non-English languages, such as Tagalog. Beyond the Philippines, this study provides information that may help other countries where AAC is also emerging. This study hopes to inspire other novice researchers to explore the phenomenon of multilingual AAC intervention within their own context.
References


Phil. Const. art. XIV, § 7.


Department of Education. (n.d.). *K to 12 basic education curriculum.* https://www.deped.gov.ph/k-to-12/about/k-to-12-basic-education-curriculum/


Appendix

Focus Group Discussion Protocol

PROJECT: AAC and Multilingualism in Children with Complex Communication Needs: Perspectives of Filipino Parents and Teachers

FOCUS GROUP DISCUSSION PROTOCOL

<table>
<thead>
<tr>
<th>Participant group</th>
<th>Filipino Parents and Teaching Professionals of AAC Communicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>We are a team of researchers from San José State University, and we are studying multilingualism and AAC. We are interested in learning about your experiences with multilingualism (speaking and understanding Tagalog and English) and AAC implementation for your child/student. We want to see how we can use this information to establish background knowledge on multilingual AAC implementation. We will maintain anonymity with regard to your responses and the details of your affiliations.</td>
</tr>
</tbody>
</table>

Part 1 - Background

<table>
<thead>
<tr>
<th>Introductions</th>
<th>Can you tell us your name, how old your child/student is, and how long your child/student has been using AAC?</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAC intervention</td>
<td>Is your child/student currently getting AAC services? Follow-up: How long has your child been getting AAC services?</td>
</tr>
</tbody>
</table>

Part 2 – Experiences

<table>
<thead>
<tr>
<th>Interaction</th>
<th>How do you usually interact with your child/student who uses AAC, and what languages do you use?</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAC implementation</td>
<td>Tell me about your experiences with your child/student using the AAC device at home/school.</td>
</tr>
<tr>
<td>Multilingualism</td>
<td>For parents: What are your thoughts about raising your child as an English and Tagalog speaker? For professionals: What are your thoughts about your student communicating in both English and Tagalog?</td>
</tr>
<tr>
<td>Challenges</td>
<td>For parents: What are the challenges you have encountered in raising your child, an AAC user, as a multilingual speaker? For professionals: What are the challenges you have encountered in getting your student, an AAC user, to speak and understand both English and Tagalog?</td>
</tr>
<tr>
<td>Supports</td>
<td>For parents: What helped you in raising your child, an AAC user, as a multilingual speaker? For professionals: What helped you in getting your student, an AAC user, to understand and speak both English and Tagalog?</td>
</tr>
</tbody>
</table>

Part 3 - Closure

<table>
<thead>
<tr>
<th>Possibilities</th>
<th>What else do you think can help AAC communicators learn to express themselves in both English and Tagalog?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final remarks</td>
<td>Is there anything that you would like to say that we were not able to address with our questions?</td>
</tr>
</tbody>
</table>