# When More Means Less <br> Mapping the Gaps between Expert and Public Understandings of Dual Language Learners 

A FrameWorks Map the Gaps Report

Marissa Fond, PhD, Senior Researcher and Assistant Director of Research
Michelle Smirnova, PhD, Fellow
Marisa Gerstein Pineau, PhD, Researcher
Julie Sweetland, PhD, Vice President of Strategy and Innovation

## Table of Contents

Table of Contents ..... 2
Introduction ..... 3
Analysis of Expert Perspectives on Dual Language Learners ..... 4

1. Who are dual language learners? ..... 5
2. How does language acquisition work for dual language learners? ..... 6
3. What are the benefits of learning more than one language in early childhood? ..... 7
4. What can society do to support dual language learners? ..... 8
Public Understanding of Dual Language Learners ..... 11
Part 1: Cultural Models of Language, Culture, and Identity ..... 12
Communications Implications of Cultural Models of Language, Culture, and Identity ..... 22
Part 2: Cultural Models of Learning and Education ..... 23
Communications Implications of Cultural Models of Learning and Education ..... 31
Part 3: Who are dual language learners? ..... 32
Communications Implications ..... 36
Mapping the Gaps: Key Communications Challenges ..... 37
Overlaps between Expert and Public Views ..... 37
Gaps between Expert and Public Understandings ..... 37
Conclusion: Key Reframing Tasks. ..... 39
Appendix: Research Methods ..... 41
Expert Interviews ..... 41
Cultural Models Interviews ..... 41
About the FrameWorks Institute ..... 44
Endnotes ..... 45

## Introduction

Young children who are learning more than one language simultaneously occupy a unique position in our society. These children - known as dual language learners, or DLLs—have the rare opportunity to develop native-level fluency in multiple languages; as such, they are poised to contribute essential linguistic and cultural skills and perspectives to our increasingly globalized society and economy.

Yet, given the state of language education and related language education policies, these children's potential is sorely underdeveloped. Existing educational policies and practices chronically fail to support the language development-and thereby, other aspects of academic and social development-of young dual language learners. Moreover, the programmatic infrastructure and workforce necessary to support multilingual acquisition have been withered by decades of English-only policies at the federal and state levels. Recent policy shifts-such as California's Proposition 58, which allows for bilingual education in the state's public schools-offer reasons for hope. But changes like these are needed nationwide, and even hard-earned wins at the state level are vulnerable if they lack broad levels of public support.

To move forward at the pace and scale needed to embrace the linguistic potential of millions of US children growing up with two languages, advocates need powerful strategies to change how people think about and understand language development. They need to shift expectations about how and what young children learn, and they need to expand public thinking about the value of learning languages other than English. To change cultural norms about dual language learners, advocates need to change the conversation about language and development.

Understanding this, a group of foundations (the Bill \& Melinda Gates Foundation, the Heising-Simons Foundation, and the McKnight Foundation) is sponsoring a project led by the FrameWorks Institute to conduct a Strategic Frame Analysis ${ }^{\circ}$-a multi-method investigation that combines theory and methods from different social science disciplines-to arrive at reliable, research-based recommendations for reframing dual language learning. This report represents the first stage of research; its purpose is to establish the conceptual goals for efforts to build public understanding and to identify the obstacles in public thinking that make those concepts difficult to communicate.

This report unfolds in three parts:

1. The Expert Perspective Analysis distills the major concepts that characterize expert thinking on dual language learners-the "big ideas" that the field wants to get across to the public.
2. The Public Perspective Analysis summarizes FrameWorks' findings on American cultural models ${ }^{1}$, or widely shared patterns of public thinking, regarding DLLs. These cultural models shape public opinion on language learning and provide insight into whether and why certain frames will build, or undermine, support for reforms intended to better support DLLs. This study reviews patterns of
thinking related to language, cognitive development, education and learning, family, culture, and identity, and unpacks the communications implications of these models.
3. The Summary of Framing Challenges explains the implications of the gaps and overlaps for communications practices.

A detailed description of the methods used in this research and participant demographic information can be found in the Appendix. In subsequent stages of this project, FrameWorks will build on this analysis to develop and test framing hypotheses tailored to specific perceptual challenges and designed to dislodge misperceptions about DLLs. This will yield a comprehensive and cohesive strategy for promoting more effective approaches to communications about DLLs and related issues. In the meantime, this study will equip advocates with insights into the underlying drivers of public opinion about DLLs and offer sound ways to navigate the public discourse on this issue.

## Analysis of Expert Perspectives on Dual Language Learners

Clear communications goals are essential to any effective plan for engaging and informing the public about social or scientific issues. In addition to traditional communications metrics like awareness, reach, and engagement, advocates must also articulate the desired conceptual outcomes of the field's communications efforts. A Strategic Frame Analysis therefore begins with distilling the expert consensus on big ideas the public needs to know in order to become more informed citizens, less susceptible to misinformation or spin, and better equipped to engage in productive dialogue about proposals advanced in the public sphere.

Arriving at these key concepts is not a trivial endeavor. Academic researchers are more accustomed to talking to peers than to the public, and experts are more likely to make fine-grained distinctions than they are to articulate where their assumptions overlap with others working on their topic. To tightly condense the field's underlying assumptions and points of agreement, FrameWorks organized points as answers to a sequence of questions that establish the fundamental contours of the topic: Why does this issue matter? How does it work? What prevents it from working? And what should be done to improve the situation?

To explore and distill how experts answer these questions, FrameWorks researchers conducted a series of one-on-one interviews with leading experts on dual language learners. Common themes were pulled from the interviews and categorized in order to arrive at a refined set of concepts that reflect expert perspectives on dual language learners. These themes are presented below according to the following narrative outline:

1. Who are dual language learners?
2. How does language acquisition work for dual language learners?
3. What are the benefits of learning more than one language in early childhood?
4. What can society do to support dual language learners?

## 1. Who are dual language learners?

- Dual language learners are children who are developing proficiency in more than one language during early childhood (i.e., from birth to ages 5-8). Experts generally agree on this simple definition of DLLs, and distinguish them from English Language Learners-ELs or ELLswho are older. A key characteristic of dual language learners is that they are learning more than one language before they have developed full proficiency and competency in any one language.
- Dual language learners can come from any home language background, but the term typically refers to children who are learning English as a second language. In theory, a dual language learner can be learning any home language (also called "L1") and any additional language(s) (also called "L2"). Experts point out that, in the United States, the L2 is typically English. This brings with it a specific set of challenges, including potential L1 loss and discrimination based on national origin and/or ethnicity. Moreover, because of the patterns of residential and socioeconomic segregation that fall along racial and ethnic lines, DLLs are also less likely to have access to quality schools and other important supports for early healthy development. There are also DLLs whose home language is English. For these children, learning a second language is typically a matter of family choice that is motivated by parental recognition of the potential advantages bilingualism can bring later in life.
- Dual language learners are demographically diverse and represent a growing segment of the US population. DLLs represent a range of ethnicities and national origins (though the majority have roots in Latin America or Asia), and speak a variety of languages. Many were born in the United States and have parents who are recent immigrants, though some arrived in the United States as young children. Experts estimate that, depending on the region, approximately 25-33 percent of young children in the United States speak a language other than English at home. This percentage is growing as immigrants continue to comprise a larger share of the US population.
- Dual language learners need to develop both languages for optimal social and emotional development. Community, culture, and language are intertwined, just as social, emotional, and linguistic skills are interrelated. Children can't fully develop one without the others. Maintaining one's first language, as well as developing a second, is therefore crucial to DLLs' healthy identity development. When children's first language is supported and enhanced through multiple rich experiences, they will be more likely to have a strong positive cultural identity and enduring relationships with family and others in their linguistic community. In turn, a healthy identity and relationships are essential for other domains of development, including academic progress.


## 2. How does language acquisition work for dual language learners?

Early childhood is an important developmental phase for language learning because the capacity to develop bilingualism is strongest in the earliest stages of life. Experts noted that many factors influence this process.

- All children have an innate capacity to learn two languages readily and without confusion. Evidence shows that young children can distinguish the sounds and structures of languages to which they are exposed, and they quickly learn to use the appropriate language for a given situation (e.g., speaking their home language with family members and English with classmates). Experts explained that a child's brain is wired to differentiate multiple languages in early childhood, and that all children-including those with learning disabilities or special needs-can learn multiple languages without confusion or cognitive overload.
- Children require a consistent, continuous source of quality interaction to become bilingual. While all children have the capacity to learn two languages simultaneously, optimal learning requires rich input and extensive support. Interaction-and motivation to communicate-are crucial for language development. Situations in which a child is motivated to communicate (e.g., to get something she or he wants or to interact socially with a peer) must be engineered or encouraged in both the child's home language and in English. Language development must be supported at school and other places where children spend their time (e.g., at day care, in the home, etc.) so they can benefit from a variety of inputs.
- Young language learners benefit from interactions with adults who speak in the language in which they are most fluent and comfortable. Experts expressed that it is important for adults to interact with young children in the language in which they are most fluent, competent, and comfortable. This is important because children need to be exposed to a variety of different vocabulary words and types of sentences (e.g., directives, greetings, descriptions, etc.), and an adult may be better able to provide this rich input in his or her home language rather than in English. Doing so will enhance children's language development.
- Social and contextual factors affect learning and language proficiency. While all children have an innate capacity to learn multiple languages, experts emphasized that children's learning trajectories and their eventual competence in the languages to which they are exposed can vary widely. Some factors that affect proficiency include socioeconomic status, the length of time a family has lived in the United States, the perceived value of the home language, and the presence or absence of resources to support language development.
- Developing two languages in early childhood supports language development overall, and building a strong foundation in the home language supports English acquisition and literacy development. Experts emphasized that children who receive input and instruction in their home
language while they are also learning English will typically learn more, learn better, and learn more efficiently. Learning the sounds, grammar, vocabulary, etc., of the home language not only strengthens children's development of their home language but also strengthens linguistic skills that can transfer to English and any other language they may be learning. Transfer requires that the skills in the home language be well developed and continuously supported.
- The home language can easily be lost without continuous development. In the United States, if a child's home language is not English, children are likely to receive less input in the home language as their social sphere widens. Interactions with English-speaking friends, neighbors, and classmates, and interactions with English-language media, increase the likelihood that students will grow their English-speaking ability while losing their home language. If the home language is not supported, it will eventually be lost. This can lead to the loss of important family and cultural connections that affect wellbeing, as well as the loss of other benefits of bilingual proficiency.


## 3. What are the benefits of learning more than one language in early childhood?

Experts pointed out important benefits of bilingualism for both individuals and our society. Experts agreed unanimously that bilingualism is always beneficial, and never a threat or detriment.

- Bilingualism leads to important cognitive benefits. All experts pointed to extensive research suggesting that learning more than one language early in life strengthens children's executive function skills (e.g., attention and effective multitasking, inhibitory control), metacognition (i.e., reflection on thought processes), learning capacity (for other languages, as well as other concepts and skills), and the ability to understand other perspectives. These effects are lifelong. Some research also suggests that bilingualism delays the onset of dementia.
- Bilingualism produces social and cultural benefits. Experts noted that being bilingual helps children interact seamlessly with a wider range of people, as language ability grants unique access to cultural fluency. Thus, children can be "citizens of the world" who are more understanding and tolerant of other perspectives. On a more intimate level, they can also maintain stronger family and community ties, which are crucial to healthy development.
- Bilingualism can lead to economic benefits. Experts emphasized that there are important and wide-ranging economic benefits to bilingualism. People who are bilingual are in higher demand on the job market, and not only for their language skills; bilingual people often have stronger interpersonal and self-regulation skills, which are needed in the workplace.

Experts stressed that benefits of bilingualism accrue not only to bilingual individuals but also to society more broadly. If citizens have improved cognitive functioning, if they are able to move in and out of social
situations with ease, and if they bring valuable skills to the workforce, our country will be stronger as a result. Experts pointed to the following society-wide benefits:

- Dual language learning supports help students achieve academically, leading to more creative and productive citizens. First, students who develop language abilities in strong, effective programs are not "a burden" on the education system later in life because they achieve at equal or higher levels than monolingual English speakers. In addition, dual language learners are the country's future workers, Social Security contributors, homebuyers, etc. They will occupy these positions in higher proportions as the nation's demographics change; their success will fuel the US economy.
- Bilingualism is an expected, and positive, feature of "a nation of immigrants." All experts mentioned the merits of a diverse society. Some made a stronger case for multilingualism as a unifying force that makes it possible for more people to communicate with one another.
- Bilingualism in US citizens enhances our national security. Important national security roles, such as positions within the Departments of Defense and State, require skills in a wide range of world languages. Experts noted that the best candidates for these positions are former dual language learners who have high-level proficiency in both English and another language.


## 4. What can society do to support dual language learners?

This section highlights important local and federal policies, as well as best practices in education, to help dual language learners thrive.

- Dual language learners need language development to be continuously supported, both during early childhood and throughout their education. As one expert asserted, "Dual language learners must be supported even if dual language learning programs are not possible." Experts emphasized the need for dual language education and support during the earliest years (i.e., preschool), which represent a critical period for language development. But they also stressed that effective dual language learning must continue throughout the language development phase (i.e., at least through elementary school). If dual language learning continues throughout this entire period, it is much more likely that students will fully develop both languages to which they have been exposed. Experts explained the importance of curricula that build on previous years' progress in a logical, coherent way. Too often, for example, children are in dual language classrooms in preschool and then abruptly switched to English-only kindergartens. It is crucial to provide dual language support before kindergarten, and then continue to provide developmentally appropriate support throughout elementary school.
- Dual language learning programs in which children get part of their instruction in their home language and part in a second language enhance proficiency and prevent language loss.

Generally, the goal of dual language learning programs is to develop both children's home language and their second language, with the long-term goal of enhancing academic achievement and readying them to be fully bilingual, bi-literate, and bi-cultural adults. Some experts did not use the term "dual language learning" and instead favored terms like "two-way bilingual immersion" or other more specific descriptions to describe variation in how dual language programs are implemented.

- Teachers and caregivers can learn strategies to support dual language learners, even if they don't speak both languages. Experts noted that monolingual adults can still actively support bilingual development. Adults who work with children throughout the $0-8$ age period can provide a rich variety of inputs to continue the acquisition and learning of both languages, regardless of the adults' language proficiencies. Some strategies revolve around increasing the quality of interaction in the language the adults do speak (e.g., contingent feedback, maintenance of joint attention), while others center on adults' capacity to select and provide developmentally appropriate input in both languages. In a classroom, for example, books, CDs, and other technologies can provide language input in the child's home language and in English. Experts pointed out two important points about written language: Text support is (1) crucial for developing each language a child is learning, and (2) can be used as a supplement when teachers or caregivers are not able to provide full support.
- Parents, families, and community members must be intentionally engaged to assist in supporting dual language learners. Parents, families, and other adults who interact with DLLs are valuable resources for supporting dual language learners. Indeed, they are essential partners in fostering a language-rich environment that provides input in multiple languages. Institutions such as early learning centers, schools, libraries, and community centers have a role to play in recruiting these adults as active supporters, as do other sectors that have regular and predictable touchpoints with DLLs, such as the health care system (e.g., pediatricians and nurses) and the public health system (e.g., home visitors).

These systemic actors also have the capacity to influence parenting knowledge and behaviors. For instance, they may encourage families to interact with children in the language that supports the highest-quality interactions and affirms the importance and value of maintaining children's home language. Experts noted that effective approaches to family-school engagement often involve concerted efforts to reach out to families and find ways to both affirm and access their linguistic competence. For example, families of DLLs could be asked to talk to classes about their linguistic heritage, select songs or stories in the home language, record audio versions of texts, or help create classroom posters and other materials that provide text exposure in multiple languages.

- Teacher preparation for both bilingual and monolingual educators should build capacity to work with dual language learners and their families. Experts emphasized that bilingual and
monolingual teachers should be educated about important principles of the field of dual language education (e.g., the consequences of language loss, how to support students' home languages, effective partnership with families). Such training is important for monolingual teachers; without specific training, they may assume they cannot effectively support dual language learners in their classroom. It is equally important for teachers with proficiency in two languages. Knowledge of a language is not the same as knowledge of language pedagogy. Therefore, explicit and effective teacher preparation is an important element of building an education system that can support DLLs.
- To meet demand, more bilingual teachers must be recruited, prepared, and retained. While monolingual teachers can provide effective support for DLLs, bilingual teachers are increasingly in demand. However, there is a severe shortage of credentialed bilingual teachers, especially those trained to teach DLLs.
- Assessments of developmental and educational needs must evaluate children's skills in each of the languages they speak. In early childhood, developmental screenings and continuous observation are necessary to determine whether any early interventions are needed to support overall achievement. These assessments must be carried out in children's home language as well as in English so their abilities are more appropriately captured and their needs are more accurately targeted.
- The federal government should increase funding for dual language learning programs through the Every Student Succeeds Act (ESSA). Experts said federal policies like ESSA give states a good deal of flexibility in how they spend resources-so the role for the federal government in this area is rather limited. However, they called for federal funding for dual language learning programs to make it possible for states to adequately serve this growing population. Though federal funding for dual language learners has increased, the greater increase in the population of DLLs means the amount of federal funding per student is lower than in the past.
- Funders should increase support for investigating best practices for dual language learners. Experts acknowledged that challenges remain in determining how best to meet the needs of all dual language learners, especially in challenging circumstances (e.g., very diverse language backgrounds in a single classroom). They called for both philanthropic and government funders to make this area of research a higher priority, noting that agencies like the Institute for Education Sciences are important for stimulating research through funding.

Given the scientific consensus around dual language learners, the time is ripe for communications efforts that can help the public understand the value of dual language learners, why their optimal development is a matter of public concern, and what we can do to ensure that more effective approaches are adopted with
all due speed. If such efforts are to be effective, however, advocates must take seriously the manifold, deep, and complex set of understandings that structure public thinking about language, language diversity, child development, education, identity, and more. The next section outlines findings on how the public thinks about these issues.

## Public Understanding of Dual Language Learners

Before designing communications on a complex issue like DLLs, it is helpful to anticipate how and why communications might go awry. When strong conceptual models exist but are at odds with research and evidence, advocates need strategies that can shift perspectives and allow people to incorporate new ways of thinking. A systematic assessment of where and how public thinking differs from expert consensus is therefore an important resource for setting communications priorities, designing a strategy to meet those priorities, and selecting framing tactics.

The research presented here is distinct from public opinion research based on polls or focus groups, which documents people's surface-level responses to questions. This research focuses on the complexity of how people think about the many intersecting issues involved. It deconstructs the assumptions and thought processes that inform what people say and how they form judgments and opinions. The unit of analysis is cultural models-the term that anthropologists use to describe shared assumptions and patterns of reasoning ${ }^{2}$-that inform the public's thinking about DLLs.

Working from more than 950 pages of interview transcripts, FrameWorks researchers identified the common understandings and implicit assumptions that shape how the public thinks about DLLs and related topics. To define the cultural models identified in this report, researchers coded the transcripts according to the ways in which participants responded to questions, made connections across topics, expressed what they considered conventional truths, etc. Following this initial analysis, researchers analyzed the clusters of codes to determine the common, shared assumptions that underlie the participants' comments. Those that were prominent across the data set were then debated among the researchers to make sure the patterns were, indeed, shared widely. The results of this analysis are described in this report, and the cultural models are "named" (e.g., the Naturalism cultural model) so the concept can be referenced throughout the report.

This focus on common understandings doesn't dismiss or dispute the fact that people also have different ways of understanding this issue. Rather, identifying the patterns that are shared across an otherwise diverse group of people allows for a more strategic deployment of communications resources later because it focuses reframing efforts on the assumptions that inhibit productive consideration of a topic. That said, this study also paid some attention to whether and how patterns in public thinking are shaped by language experience. While maintaining a core focus on identifying patterns that were shared across
participants, researchers also looked specifically for assumptions that were structured by language histories. For this step in the analysis, researchers used participants' self-reported experiences to classify them into one of three groups:

1. Monolinguals: Research participants who only speak English. They could not speak or read in a language other than English, though they may have taken a language class at some point (e.g., to fulfill a high school or college language requirement).
2. Bilingual-adjacents: Research participants who only speak English fluently, but who may have studied another language more extensively, worked in bilingual environments, or lived in bilingual communities.
3. Bilinguals: Research participants who were themselves DLLs as children and who, as adults, speak English and another language.

These three categories are designed to reflect the understanding that multilingualism exists on a continuum. Where these language histories revealed distinctions among the groups that might prove relevant to communications strategy or framing tactics, it is noted in the analysis.

Understanding how the public thinks about DLLs, and all the issues that relate to people's thinking, will help communications professionals anticipate how the public will interpret information about DLLs. Armed with knowledge about how the public thinks, advocates can better frame their messages to increase understanding and engagement and to avoid messages that either leave the public disengaged or lead to public thinking in unproductive or counterproductive directions.

## Part 1: Cultural Models of Language, Culture, and Identity

Several important, overarching cultural models structure the public's thinking about these fundamental topics.

The Language in the Mind is a Zero-Sum Game Cultural Model: The brain only has room for one language at one time.

One of the deep assumptions that structures the public's thinking is that language is zero-sum. This model involves the idea that a person's brain is like a container that only has so much room for knowledge and skills. Therefore, learning more than one language means that some other important information or ability is lost (or never gained in the first place). This model is illustrated in the following quote from a research participant: ${ }^{3}$

Participant: I guess I mean, I know in school you learn that your brain only has the capacity for so much information. And you can remember things that are really recent that you learned, versus
things that you learned a long time ago that kind of stick in your brain. So, maybe when you're learning multiple languages you have less capacity for each one. So, you can't commit to learning as much as possible?

The Zero-Sum model also leads people to assume that bilingualism involves tension, confusion, or competition between the two languages.

Participant: I guess what I would understand is if there's multiple languages spoken in a home, I believe as we learn a language then you're always thinking in your primary language and translating that over [into the other language].

Reasoning from this model, people conclude that one language must come out on top; one will be dominant and the other secondary.

Evidence of zero-sum thinking was strongest and most consistent among monolinguals. For bilinguals and bilingual-adjacents, the experience of knowing more than one language affected their thinking, allowing them to also hold in mind a positive-sum model of language in which the presence of both languages added, rather than subtracted, to overall language knowledge. Despite this, zero-sum thinking was still prominent for these speakers and structured their opinions. For example, many bilinguals (including the participant quoted below) brought up the topic of accent and suggested that if young learners didn't learn English well enough for it to become their dominant language, then they would inevitably develop a non-native accent as the home language interfered.

Participant: Most people speak English, and if whatever field you are going into, if it's going to be in the United States, then I think you would be a lot better speaking English [growing up] and not speaking with an accent.

The expression of this anxiety, and others, about the uncertainties involved in developing two languages simultaneously reveals an underlying model that languages are separate entities in competition with one another.

The Language in the United States is a Zero-Sum Game Cultural Model: As a nation, we only have room for one common language at one time (and this language must be English).

In addition to structuring thinking about language, this Zero-Sum cultural model also influenced the public's thinking about culture in the United States. Built on the same foundational Zero-Sum model described above, this related pattern of thinking models the country as a container with only so much room for so much culture and language.

This model was pervasive and strong among monolingual participants, whose opinions revealed an implicit assumption that a strong and unified country is strongly unified around one language. With prompting, this underlying assumption buttressed mostly positive reactions toward the suggestion of English as the "official" language of the United States. This belief was often paired with expressions of good intentions toward those who speak other languages. Monolinguals assumed that having a single language makes life easier and more efficient for everyone because it levels the playing field and makes expectations clear. Notice how the following participant asserts the importance of accepting many languages, but also expresses the belief that it is important for English to be the official language:

Participant: When I was a kid growing up, we always heard things like, "You should speak English," like, harsh, you know. [...] So, the community as a whole should be accepting.

Researcher: Yeah. So, let's broaden the topic a little bit then. Thinking about the country as a whole, how do you think we should handle language? Do you think there should be official languages?

Participant: Definitely an official language, which is English.

Researcher: Okay, and only English?

Participant: Uh-huh. I don't think there should be any other official language.

Researcher: Yeah, yeah. Why do you feel that way?

Participant: It would be a whole change in structure. To me, it would be more confusing. You definitely want to know that, when you're going somewhere, this is what you would have to speak. You would not want to have to guess.

Other perspectives based on the underlying Zero-Sum model were decidedly less inclusive and welcoming, with little room to question the dominance of a single language and evidencing little inclination to consider the matter from the perspective of people who speak other languages. The following monolingual participants expressed this pattern:

Participant: I'd say English [is the official language]. In America, you need to know English. You have to learn English. Yeah, we do have other people that move here from other countries, but the majority of us here speak English, so they're just going to have to get on board. [...] Yeah, English definitely needs to be the language that everybody knows when you're coming to America.

Participant: I think in schools in the United States, English is what should be taught and everything else is secondary.

By contrast, bilinguals and bilingual-adjacents were less likely to model US culture in a zero-sum way. They rejected the idea that English should be the official language of the United States. Reasoning from experience, they noted that other languages are spoken in the United States, and have been for centuries. Therefore, it should be obvious that these languages do not take anything away from those who speak English.

At the same time, the bilingual and bilingual-adjacent participants in our sample had cognitive access to the Zero-Sum model, and could reason from it as well. Some participants shared stories about times when the visibility of languages other than English hurts, rather than helps, those communities. For example, one bilingual participant told a story of a newscast in which a Spanish-dominant person was interviewed in English; the participant argued that the interviewee's "broken English" was harmful to the cause for which he was advocating:

Participant: They will say we are interviewing this person, "So Juan, tell us about this ..." And the channel is changed after that. Some guy is talking on there, and who knows what the hell he is saying. If he can't speak English, how am I supposed to help him?

Bilinguals and bilingual-adjacents observed the contrast between their own beliefs and the dominant attitude of monolinguals: While they believed diversity in the United States shouldn't be a zero-sum game, they saw that much of life in the United States is organized by the belief that it is. This concern led people to privilege English to avoid the possibility of being left behind or shut out of important cultural activities.

The Zero-Sum model of language also structures the following Melting Pot models.

## The Melting Pot Cultural Models of the United States

All of the participants, at some point, used the familiar "melting pot" metaphor to talk about American culture. When using this metaphor, the bilingual and monolingual participants' underlying thinking diverged most strongly.

## VERSION \# 1: The Melting Pot=Diversity Cultural Model: The United States has always included a mixture of cultures, and this diversity is a strength.

Generally, bilinguals and some bilingual-adjacents used the melting pot as shorthand for the idea that the United States is made up of people from all over the world, and that it celebrates the cultural diversity that immigrants contribute to society. In this way of thinking, language is understood as a key aspect of culture and an important aspect of diversity more broadly. In this model, diversity is far from a threat to the nation. Rather, it is described as a long-standing and normative state of the country-a positive part of what America is and always has been.

Participant: I think it's important that people realize that there's so many people living here in the United States from other countries that bring a lot to the US. The language, number one. The culture, as I said, the food, festivals, religion, clothing. They bring all these things to the community, and so everybody can be exposed to a lot of things that they wouldn't have. And then, they get to know the language. You know, "hi," "bye," simple things so they just become better neighbors. And keeping the language with the children, and then that just stays with them and then they pass it on to their children and their grandchildren. And that way the language doesn't die. And the culture still stays in place.

Participant: Well, there's lots of languages going on right now. And it's always been like that since the beginning. Just, it's a big melting pot of various people that live here. And so, when you go to New York you could be speaking English and then you turn around the corner there's Spanish, then there's Chinese. And so, and Hebrew if you up a little bit farther east. And it's just a variety of people living everywhere.

In this pattern of thinking, people's traditions, values, and culture can only be truly understood and appreciated through language. For example, specific foods of Mexican origin can only be described in Spanish (or, if relevant, one of the many indigenous languages spoken there). Therefore, in a broad sense, cultural identity is language. The following participants, for example, equate language and culture:

Participant: Language matters. It matters in everything we do, in the way we socialize with other beings. Really, any beings, right? It could be animals, or human... umm... babies. It's the way we socialize, the way we relay meaning, the way we relay stories, our history, our future, our ideas. Our affection. Everything. If there's language... I mean, I automatically think of language as words, but really, language is everything.

Participant: My nephew, when my mom visits, my mom goes to California every year in the summer to get out of the heat and then she comes back in October and she stays with my brother and she always speaks Spanish to my nephew. So he knows, he knows those little things that grandma says, but he can't hold a conversation. Uh, you could order something, you could just like being in another country. "Where's restroom?" But he can't hold a conversation with anyone.

## Researcher: Right.

Participant: He's not culturally there, you know.

Part of what has "melted together" in this version of the model is the distinction between language and culture; but the resulting fused ingredient is distinct and valuable. In this line of thinking, bilingualism enhances unity in the United States by allowing more people to connect with one another through both speech and shared experiences. Bilingualism invites more people into a richer, more inclusive national conversation. Therefore, bilinguals and bilingual-adjacents interpret the United States' enthusiasm for
diverse cuisines, music, and art-and its simultaneous rejection of languages other than English and lack of support for non-English-speakers or DLLs-as antithetical to the ideals expressed through the metaphor of the American melting pot. The following bilingual participant expressed this view:

Participant: People claim that one of the things that makes this country so great is that we are this melting pot. Well, you know, if you really believe that then, let's actually support those cultures and not shame them. You know?

## VERSION \#2: The Melting Pot=Assimilation Cultural Model: The United States has always included a mixture of cultures, but they must be blended and assimilated in the American melting pot.

When monolinguals brought up the melting pot, they suggested that this metaphor was about assimilation; while the melting pot includes diverse "ingredients," certain elements-especially languageneed to be melted down into a consistent mass, whereas other elements of the culture (e.g., cuisine, music) can remain distinct and be experienced selectively by all members of society. Despite their positive inclination toward the idea of diversity, participants modeled the concept of diversity in conflict with the idea of national unity. That is, participants appreciated that diversity enriches the United States in some ways (e.g., wider variety of foods, interesting holidays, etc.), but they valued an assimilated, united country more highly. Language formed a key aspect of their thinking about unity; because people think about language as a connection between people, they see speaking multiple languages as leading to alienation and hurt feelings, suspicion, and even danger.

Participant: Well, in I guess its fullest form, the truth is the melting pot has unmelted. There are so many distinctive people groups here in the US that there's great, great diversity when it comes to what is language, I would say.

Researcher: That was an interesting turn of phrase, "the melting pot that's unmelted." What do you mean by that? I haven't heard that.

Participant: Well, back in the 1800s or whenever, when we were supposed to become the great melting pot, where all these separate entities and people groups were to come and become this "unified," and so, to me, the value of distinctiveness has, in really many ways, I think, superseded the aspect of unity.

Researcher: Okay, so it's kind of like, as the generations go, there's more and more English and...

Participant: Less and less of the Spanish. The culture will be there, I mean, because a lot of that's continued, you know.

What drives the Melting Pot=Assimilation cultural model (i.e., the idea that languages need to be assimilated, but we can enjoy different foods and festivals) is that monolinguals consider language a
means of exclusion. They describe feeling threatened when others speak a language they do not understand. In a number of cases, they assume the others must be talking about them. They also take issue with signage in languages other than English in the United States. Inclusion of other languages is seen as intentionally excluding English speakers, because English speakers cannot access the meaning of the other languages. In this way, language is very different from food, clothing, art, music, etc.

This pattern of thinking also formed the foundation of monolinguals' thoughts about other countries. They appreciated that other countries' residents are much more likely to be bilingual. However, other countries' bilingualism fit more neatly into participants' thinking about unity. For example, in France, people speak French, English, German, etc., and participants looked upon this situation favorably. However, they emphasized that the national language was French (it unifies the country), and then English and German were "added" to open up international economic and cultural opportunities. By contrast, in the United States, English is both the "uniting" language and the language of economic opportunity, which makes it difficult to see the value of bilingualism in this country.

In this line of thinking, bilingualism damages unity in the United States because it impedes the common, dominant language of our country, and bilingualism excludes monolingual people from participating in conversations with others.

## The Language Is Identity Cultural Model: Language is an important part of who a person is.

Both bilinguals and bilingual-adjacents understood that language can be important for maintaining family relationships, especially across generations, and was needed to function in a specific culture. Bilinguals, who have become adept at switching between languages and possess self-awareness about the situations and settings associated with one language or another, also held a more specific model that connected language to personal identity. They typically thought about language as a key part of selfrepresentation and reputation. They talked about language as reflecting "who they are." The following bilingual participant explained:

Researcher: You already talked about the cultural connection. Were there other advantages that you had being a dual language learner and now speaking Spanish and English, both fluently?

Participant: Just in life you mean?

Researcher: Yeah, so whether it's, you know, family or work or...

Participant: I don't know if you speak Spanish or not, but I always say "Yo, me defiendo los dos idiomas. I don't know if you know what I mean."

Researcher: Um, you always defend yourself in the two languages?

Participant: That's right. I defend myself in both languages. So, I can say, "Excuse me, sir," and I say, "Señor, yo le voy a hacer una cosa," and work in both of those areas.

Researcher: And what does that do for you?

Participant: That just gives me the ability to get my point across to him and know that if I speak to this person with broken language, it's not going to be taken as well. If I speak to an elder with, hey, put an "o" behind everything, like people do in Spanish, "phono, clipo, tableo," if I do that, right away, no respect at all.

Researcher: So broken English and broken Spanish are...

Participant: It's just not good.

The participant's comments reflect an awareness that language fluency, cultural competence, and the ability to garner "respect" as an equal participant in a social setting are intricately connected.

This understanding of language and identity was only observed among bilinguals in the research sample. Monolinguals, as well as many bilingual-adjacents, exhibited a "cognitive hole" around this issue (i.e., they did not have a way to think about the connection), where bilinguals held this concept and used it as a reasoning tool. That is, participants who grew up as monolinguals in an English-dominant community did not rely on a model that English was a part of personal identity. In a sense, their view of language was more like the perception of "a fish in water." They cannot easily see how the language they speak every day works to form their identity.

The Language Is a Tool Cultural Model: Language proficiency can accrue specific advantages.

To change the focus slightly, think about how people understand the value of bilingualism. It is important to acknowledge that all participants in this research believed bilingualism has multiple benefits. Specifically, participants mentioned scientific findings indicating that bilingualism is good for the brain and they indicated an awareness that because the future is multilingual, bilingualism improves an individual's economic prospects. People also acknowledged that the ability to speak another language enhances opportunities to build relationships and connections, though this was seen as less important than the aforementioned benefits. More detail on how the public understands these benefits follows:

## 1. Bilingualism enhances cognitive development.

The public generally believes that language learning enhances cognitive development, and many participants went so far as to say that bilinguals are "smarter" than monolinguals. In this way, people see
language learning as a strategy to boost cognitive functioning, but they generally can't express how this improvement works. Monolingual participants expressed this enhancement as follows:

Participant: Well, I mean, research indicates that, in general, kids [who are bilingual] have higher IQs, they're smarter. I feel like it just expands their whole mind. And in general, probably just makes them more open to learning altogether.

Participant: I just think foreign language is important. I think it develops the brain. I think the earlier the better. I think it's just very important.
(Note that the participant above refers to a "foreign language." In these interviews, people generally referred to any language other than English as a "foreign" language, except in cases in which they were taking on the perspective of a DLL not yet proficient in English.)
2. Bilingualism provides economic benefits.

The public recognizes that globalization and demographic changes in the United States mean that fluency in multiple languages makes an individual more marketable. The logic behind this belief is that if a job requires bilingual skills, a bilingual person would, of course, be a more competitive candidate. This view was widely shared across the participants in this research, regardless of their language background or experience. Participants said:

Participant: Financially, I think in the world that we're living in, where translators are so needed, and interpreters, and it's in all areas, whether you go to hospitals, whether you go to a court, or whether you're just out on the street, I think those people are going to be paid better in the future.
--
Participant: As you grow up older you have a better chance of getting better jobs or getting a job over someone else because you speak more than one language.

Participant: I would say you can just communicate to more people. So, that opens up more opportunities for you in terms of just talking to people, and also, I think in terms of the workforce now. More and more companies want people that are bilingual because they're working on an international front.

Participant: I think if kids maybe knew what the language is, that's really going to open doors up to them in the future, they'd be more apt, I think, to do it. I feel like doors are limited for me because I don't have a second language, [like] job opportunities.
3. Bilingualism provides opportunities to connect.

The public recognizes social benefits to bilingualism and sees them as largely instrumental, meaning that bilingualism is the means to accomplish a goal or gain an advantage. People pointed out that bilingualism
makes travel easier and makes it possible to ask for directions, etc., in another country. The following two monolingual participants expressed this pattern in terms of travel outside of the United States:

Participant: Well, when you travel you're able to speak in the-depending on what language of course, or languages - you're able to speak to people in their own language. And that is a real benefit, I think, for tourists. And I know that because we were just in France and it's just so nice to be able to have people appreciate. [...] And also, you know, just watching television, sometimes you'll have, say, the French president-you can kind of tell the difference between what he's saying and the translation. And that's kind of interesting. I mean, it's not necessarily a huge benefit, but it's just an interesting thing.

Participant: That's why I'm saying that language opens a lot of doors for people. It creates this curiosity about learning about other cultures and about what other countries ... I recall in Spanish, learning which countries spoke Spanish and saying, "Oh, I want to go visit one day."

The common thread between these three "virtues" of bilingualism is highly instrumentalist. Language was understood much like a tool that one might (or might not) add to his or her own toolbox, and the benefits of bilingualism were seen as personal advantages that one could choose to pursue or not.

The Language Is a Tool model may hold both promise and peril for efforts to better support early dual language learners. The strong positive associations with speaking "another" language may serve as resources for building support. Yet, this model also has some problematic implications, especially when considering how it interacts with other models. Because the public is prone to Aging Up language learners (i.e., thinking of DLLs as older children rather than younger ones), the economic and social benefits may be seen as less relevant for young children. In addition, the focus on skill acquisition for individual gain obscures the social, cultural, and demographic processes that are driving the increase in young dual language learners. This is described in greater detail below.

Moreover, the Language Is a Tool model and the Zero-Sum model meld into a "toxic combo." Reasoning from the Language Is a Tool model, the public can easily see why it makes sense for monolingual English children to have access to learning a language other than English: They have the most important language already in hand, so another language will only serve as a source of enrichment. When applied to dual language learners, the Zero-Sum model leads people to insist that English take pride of place. The instrumental and "extra" benefits of the language other than English are positioned as tools that might be fine to have, but not at the expense of other, more critical skills.

## Communications Implications of Cultural Models of Language, Culture, and Identity

Cultural models have important communications implications. Understanding that the public holds these models in mind and uses them to interpret new information helps advocates anticipate how people will respond to messages about DLLs. Some important implications of the cultural models described above are:

1. Thinking about language and culture as zero-sum blocks understanding of DLLs' experiences. Essentially, the dominant modelling of language and culture as zero-sum means the public has limited ways of thinking about what it means to develop more than one language simultaneously. The monolingual public, in particular, assumes that one language, and one culture, must be dominant over the other. The bilingual public notes the dominance of zero-sum thinking and does not wish to be on the losing end of the game. This mindset does not leave room for thinking about DLLs' simultaneous language development as a strength that should be encouraged and supported.
2. The public's understanding of languages as "dominant" and "secondary" strengthen the belief that English must be developed above all else. Because the monolingual, bilingual, and bilingual-adjacent public believes, according to the Zero-Sum model, that one language must be dominant over others, they assume it is important to ensure that English is the dominant language of all US citizens-especially young children growing up in this country.
3. Monolinguals' positive thoughts about "diversity" must be explicitly built upon and expanded to include the importance of linguistic diversity. The prominence and the superficiality of monolingual participants' nods to diversity can obscure the fact that, for them, diversity does not always include language. Advocates need to explain how language is an important part of what it means to support diversity in this country.
4. Monolinguals' assumption that bilingualism damages national unity is an important communications challenge. This represents a big gap between the expert and public (monolingual) perspectives. Because monolinguals tend to see bilingualism as excluding English speakers, and thus a source of division rather than unity, it is important to address this framing challenge.
5. An instrumentalist modelling of the benefits of bilingualism blocks consideration of the bigpicture issues facing DLLs. Seeing language benefits as purely instrumental puts language in the conceptual category of optional "enhancements" that people might choose to acquire (or not). This individualistic view ignores the complexity of the strengths and challenges that DLLs experience.
6. An instrumentalist modelling of bilingualism leaves no space for thinking about collective action or policies that would benefit DLLs. When the public thinks about benefits individualistically and instrumentally, they locate responsibility on the individual and in the individual family. They do not see any reasons for supporting collective action.

## Part 2: Cultural Models of Learning and Education

To understand how the public thinks about DLLs, it is important to understand how people think young children learn.

The Children Are Sponges Cultural Model: The brain passively "soaks up" language, especially early in life.

As FrameWorks' research has documented in other domains, ${ }^{4}$ the public has a strong and pervasive model of children developing as sponges who passively soak up information. People also think of children as empty containers that are filled with information as they grow up. These metaphorical beliefs are highly dominant and strongly shared across monolinguals, bilinguals, and bilingual-adjacents, as these quotes show:

Participant: Your brain is more like a sponge when you're younger. I think it's much easier when you're younger. I would say when you're in your teens and you haven't learned language yet, I would say it would be more difficult to grasp it.

Participant: For us, it's that we've got such a large vocabulary now that to bring in another vocabulary with the time we have as adults and all the responsibilities, I do think it's much tougher. Kids, like I said, are like sponges. You feed them what you want them to know, yeah.
--
Participant: Well, they're young. Their mind is just open for anything. That's what they're doing, absorbing all the information that they can and that they're seeing and they're learning and they're hearing. They have no choice but to learn.
--
Participant: As far as when you're a kid, you know, you're more of a sponge. You can absorb more. As an adult, it's a little bit harder.
--
Participant: So they have a sponge, a learning sponge.

Participant: They just absorb like little sponges. I've seen it happen in other homes. I would imagine that's, really, the very easiest, but also going through preschool and the earlier ages, but probably going through, let's say college and adulthood, beyond college, that it's a little more difficult.

In the following exchange, the participant shows how the sponge metaphor connects to the Zero-Sum cultural model: the participant suggests that sponges must be wrung out to continue absorbing information.

Researcher: You think it does get a little bit more challenging the older you get?

Participant: Yes, I do.

Researcher: Why do you think that is?

Participant: Because we learn things differently. The sponge is dry at that point. It's already saturated maybe.

Researcher: That's a good way to put it.

Participant: Yeah, it's true.

Researcher: It's true.

Participant: You have to squeeze out a little bit and then put more in.

The Naturalism Cultural Model: Language learning happens instinctually, with little effort required.

This model is also in line with past FrameWorks research. ${ }^{5}$ When reasoning from it, the public assumes that learning language happens instinctually, with no effort required or support needed. Monolinguals, in particular, tended to describe language learning as a biological event for children and as a calculated and cultivated skill for adults. Many used the words like "instinct" and "nature" to support this claim, as evident in the quotes below:

Participant: I think a 4-year-old would learn quicker than a 20 -year-old. And I think maybe because their brain is just so easily able to pick up the words and it just happens automatic. They're just able to do it. I don't know how. They just can.
--
Participant: I think it's much more of a natural process. As a baby, they're hearing different languages, and then, as a toddler, they're understanding more that they can just pick up and run with it.
--
Participant: I think they're very young, they learn it almost instinctually, they pick it up.

Bilinguals and bilingual-adjacents shared this cultural model as well, assuming that children "pick up" language naturally. But, in contrast to monolinguals, they tended to emphasize that interaction was also important to language development.

## The Brains are Muscles Cultural Model: The brain needs exercise as it grows and develops.

While the public may believe that children are sponges and learning happens naturally, they do not believe this can happen without some effort on the part of the brain. The public compares the brain to a muscle that needs exercise and can get stronger with use. (This model underlies the Instrumentalist cultural model of the cognitive benefits of bilingualism.)

Participant: It kind of goes back to that metaphor of "your brain is a muscle." It's just kind of exercising that muscle. You know?
--
Participant: Once you stop school and get into the workplace, your brain changes the way it works. And so, to go back to school, even people who are out of school maybe one or two years, it's hard. Your brain needs to get those muscles working again, and if you're out of that school setting for 30 years, you can't be expected to suddenly just adapt real easily and go back into it.

## The Language is Frozen Cultural Model: Experience and ability with a language cannot be

 lost.Monolinguals in particular understand language as something that is "frozen" in young brains. Participants only applied this "once you've got it, you've got it" understanding of language development to young children. For example, monolinguals who grew up learning English and have "lost" languages they studied as adults believed that languages learned in early childhood were frozen. The same was true of bilingual-adjacents; though they might have struggled to maintain fluency in more than one language, they still assumed that children who were fluent in more than one language would always remain so. Only bilinguals who lost a language they spoke as a child knew, from experience, that language ability is fragile. The following quotes from a monolingual and a bilingual-adjacent participant illustrate this thinking:

Participant: [A home language can be] a "door opener," so [children] can come in and start learning in a classroom-but don't perpetuate that [home language]. They've got to be able to gradually switch over. They'll never forget their language at home because it's there. They have to graduate into the steps of learning English.
--
Participant: If you don't practice that language that you don't use every day, it's going to be out of sight, out of mind [...] where you'll kind of forget it. But I think if you do learn it while you're young, I think it will stay more with you, because you know, it's something that you already have in your mind. It's already there. It's almost like a second nature kind of thing.

## The Classroom as English-Only Space Cultural Model: Children's educational progress depends on an English-only classroom experience.

Overall, the public (monolinguals, bilinguals, and bilingual-adjacents) most often modelled the classroom as the appropriate place for children to learn English-if, and only if, they spoke another language at home. Largely, the public believes that the classroom should be an English-only space to balance out what children are hearing at home and to make sure that English-language skills are cemented early (e.g., a native English accent). The following quote is from a monolingual participant:

Participant: My son, he came home, and he's in middle school. Somehow he said, "My teacher is speaking Spanish." I was like, "What do you mean?" He said, "The kids in my class, some of the kids in my class, speak Spanish, so she speaks to them in Spanish." I said, "Wait a minute. What about the rest of y'all. What are y'all doing while they're ...?" He said, "We just sit there."

Researcher: Is this a Spanish class or is this just the regular ...?

Participant: This is English... This is the language arts class. I was like, "How are y'all supposed to learn if she's focusing ...?" She's from the Dominican Republic, so she speaks Spanish. I was like, "Are all of y'all learning the same thing?" I said, "Is she teaching y'all." He was like, "Yes." I feel it should be in English. [...] The only way I see, you teach me English and, if they speak Spanish at home, you could just let the home take care of that part. [...] I think if the teacher is putting this focus on the kids and kind of neglecting the ones that are already speaking English, that's not good.

In addition, the public believes that classrooms should be English-only for practical purposes. Teachers, they believe, cannot be expected to know multiple languages. Even if they did, the Zero-Sum cultural model cues thinking that classroom time is precious and should be devoted to learning in English. Under this logic, if teachers need to teach in more than one language, then they won't have the time to teach students everything they need to learn.

Monolinguals perceived this English-only rule as effective and necessary. Bilinguals and bilingualadjacents were more divided in their perspectives. Most modelled the classroom as an English-only space, though they drew on their own experiences to acknowledge the challenges that English-only instruction creates. Others pointed out how language develops based on context; in other words, children learn different vocabularies and styles of speech at home and school. Therefore, if children don't have enough opportunities to practice each language in both contexts, they won't be fully competent in either. Bilinguals and bilingual-adjacents often drew on their own life experiences (rather than, for example, their academic knowledge of how language works) when they expressed their understanding of language as a competency that develops differently based on how, where, and when it is most prominently used.

The Home Language at Home Cultural Model: A home language should be fostered within the family.

Monolinguals, bilinguals, and bilingual-adjacents believe the family bears primary responsibility for children's development of their home language. The following bilingual participant describes this thinking here:

Researcher: You've already talked about how schools should be teaching English. Should they be making sure that kids retain their home Spanish or Chinese?

## Participant: No.

Researcher: So, who would be doing that?

Participant: Oh, the parents do that at home. You'll just get that with your... Like I said, my nephew didn't have to learn English, that's what he grew up on.

Researcher: So he was speaking it at home?

Participant: That's his language, and my brother and my sister-in-law, they speak English also, and in their business they do English. However, the next generation speaks Spanish and their parents, we can speak Spanish, and when we are around all of us then we all speak Spanish. There's people that speak English... Don't get me wrong, the kids, you know? But if we are talking to my mom or we are talking to someone, we will speak in Spanish.

Monolinguals in particular tend to describe language learning from an individualistic perspective, where each nuclear family is responsible for their child's language learning. Parents who speak a language other than English in the home are often blamed by monolinguals for their failure to teach children English. The assumption is that early language learning occurs at home.

Researcher: What about little kids? I'm picturing this, how this might work for adults who just moved here? What about the little kids in that family? What kind of policies would you want for them?

Participant: It would be up to their parents to teach them that.

Participant: The children, it's their parents. As parents think about caring and making a way for themselves and caring about their children, they need to take the responsibility for learning the language in the culture they live and not expect that the culture is going to or society is going to print [government materials] for them and everything and all. Or even it's the same thing: families where
parents say well, education is the school's [responsibility], and they don't take any responsibility in working with their children too. Well, that's not good parenting and all.

In the Home Language at Home cultural model, use of the home language in the classroom is viewed as important; however, participants believed the home language should only be used as a crutch for learning English. An ideal classroom is one in which a bilingual teacher or aid teaches in English, but swoops in with home language skills to explain a concept or comfort an upset child. Essentially, the home language does not belong in school except in limited circumstances. The following bilingual participant describes his thinking this way:

Participant: No, [a classroom shouldn't include languages other than English because] that's the responsibility of the household and the family. It's not the school's responsibility. Unless the student is trying to learn English, then... that's not... they shouldn't. If they want to maintain the Vietnamese, then they should keep it up in the household. [...] I'm sure the parents are probably gonna have TV shows. There are channels on, and they'll keep it up that way. Sometimes the parents have books in the home. Magazines, things like that. So, it stays, it just stays with them as long as they stay in the household. [...] You take one hat off, go in and take that hat off and put this hat on. You back and forth. Take the thing and turn the switch on and off.

Researcher: And would you say that kind of describes your experience? Like learning multiple languages as a young kid?

Participant: Right. So, my school was primarily all English. No one spoke Spanish. At home I was Spanish and English because of my neighbors.

## The Language Is "Extra" Cultural Model: Languages other than English are a luxury, not a necessity.

Every cultural model discussed thus far reflects the assumption that language is a nice "extra" in our education system. All participants expressed that time devoted to languages other than English (which they believe is necessary) is extracurricular or a luxury. Of course, each group thinks about language as an "extra" in slightly different ways. Bilinguals draw on the Home Language at Home cultural model-the belief that learning English is so important that teaching in the home language is "nice to have" and necessary for flailing children, but not otherwise important.

Participant: Just like we put our kids in sports and things like that, [we should do that with] a language, learning another language. It can only benefit them in the future.

Researcher: But do you think it's overall a good or bad idea for a very young child to be learning more than one language?

Participant: I'd say it's a good idea.

Researcher: Okay, yeah, good overall.

Participant: Yeah. I would just say not too overloaded with learning another language. First, learn the basic language of the country that you're in-the native language-and then add in basics from another language.

Participant: English as the main language always should be, you know, driven into them. You know what I mean? But the other language, I would say, should be, you know, more of, like I said, an extracurricular type thing almost, especially if it's not one of the main ones.
--
Researcher: So, I'm wondering, how would you describe what bilingual is? Like who is bilingual? Who is not bilingual? How would you define it?

Participant: Well, it's usually your culture's language and English. It's English with another language. And I think if you are, I think if you speak English, you want a language to communicate, if you speak another language you want English to move along.

Researcher: Huh, so there's a difference?

Participant: Yeah, there is a difference.

Researcher: That's interesting, how would you describe that, because I hear what you're saying: that there's a difference.

Participant: Usually when you learn another language, Spanish, Italian, it's usually for fun. It's usually for something like, I want to tell him, or we are going to Italy, or we are having Mexican, or I want to say, "Happy birthday," or whatever it is. And when it's the other way around it's like I want to be able to say very clearly, "I'm here for the interview."

## The Black Box of Dual Language Learning Cultural Model: The public does not know what

 dual language learning is or how it works.Most participants thought of full English immersion as an unrealistic option for DLLs. Again, they accessed the Home Language at Home model to think about how the DLLs' home language should be brought into class to comfort children and help them along. However, when forced to think through how a DLL classroom would work, seamless thinking quickly stopped.

> Participant: Because I think, probably there are teachers, for instance, who could legitimately say to a dual language learner you know, "Sorry kid, but you will have to speak English here because I don't know Spanish, I don't know Somali." That's just practical, but that's not done out of ignorance or cruelty.

Participants simply did not have a way to think through how a DLL classroom could work in practice, though they recognized that simply teaching in English is not the best strategy.

## Funding for DLL programs: How do members of the public think DLL programs should be funded?

Zero-sum thinking also clearly structures the public's thinking on funding. Two other models-Language Is "Extra" and Home Language at Home-influence how people think about the allocation of resources for DLL programs. Generally, monolinguals, bilinguals, and bilingual-adjacents are willing to allocate funding for teaching English, but monolinguals resist funding for home language support.

Participant: I think if they [prioritized DLL learning], then other programs would go away. I guess because they'd be putting all the funding into this one thing, and then they would lose art, or shop, or cooking, whatever classes they're teaching now, PE. They might lose teachers because of that, because they have to cut back on the funding for this one particular thing when they can just teach the children all English. And just let the student learn their language at home and just keep it as it's always been.

Researcher: So, when you think about all the kinds of things we have to spend money on for schools, kind of where would this fall for you? High priority in terms of spending money, medium, low?

## Participant: Pretty low.

Researcher: Okay. And why would you say that?

Participant: Because like I said, the core is the main focus. If we get away from that, we're going to have people who are not fluent in our own language. Which we definitely don't want that.

## Researcher: Right.

Participant: I think a lot of people would not want to learn as much. They would just stick to their original language. They wouldn't have an incentive to learn the English language. So, they'd kind of keep reverting back to the old one. This is hard.

Participant: Medium [priority for funding].

Researcher: Why? What's more important? Or what's less important?

Participant: Because...

Researcher: What is more important than dual language learners, do you think, in schools right now?

Participant: Just trying to teach, you know, the students... Get them ahead, you know, in their lives, than focusing too much on teaching them Spanish, another language.

The following bilingual participant assigns funding for DLLs a low priority because he believes the state of education funding in his home state of Arizona is dire:

Participant: I don't think it's a priority right now.

Researcher: Yeah, I hear that.

Participant: I don't know if you know about it, but they were going to pass a , let me say it this way: you need to come up with legalizing marijuana to give my kids pencils? Do you actually need to do that? You can't come up with that on your own? You can't make a special committee that says, "We are going to put funding into kids schooling here?" So, right now, they already took away a part of the imagination of the kids by just giving them books and taking away the extra things, you know. Trying to find out whether my kid plays an instrument, whether he likes poetry, whether he's going into English, you took away all of those things and you actually had to say, "Marijuana for schooling." That is just the craziest thing.

## Communications Implications of Cultural Models of Learning and Education

These cultural models have important implications for communications practices.

1. The Children Are Sponges and Naturalism models block understanding about why young children need to learn (any) language in school. These models support the assumption that learning is passive and natural. When people think with them, they have difficulty understanding the complexity DLLs face navigating multiple languages and cultures. Nor do they appreciate the importance of societal supports for dual language learning.
2. The Brains Are Muscles model can trigger individualistic thinking of learning as "exercise." This model has the potential to help the public understand and value systemic supports for dual language learning. To reach this potential, advocates must focus on the positive, productive aspects of the muscle metaphor: they need to emphasize that language needs to be practiced and strengthened. They also need to frame these conversations around what society-not individuals-can do to strengthen brains. Otherwise, they risk cueing individualistic thinking.
3. Models that designate classrooms for English and homes for home languages prevent productive thinking about DLLs' needs. The fact that the public draws a clear distinction between settings is important; it locates responsibility for English learning in the school setting (or any setting outside of the home), and responsibility for home language maintenance in the home. These models ignore the ways in which developing two languages simultaneously-and in various locationsbenefits society.
4. Understanding language as frozen prevents people from seeing the threat of language loss and blocks thinking about solutions. People believe that if a child learns their home language at home with family during early childhood, then that child will maintain full adult-like competency for life. This way of thinking clashes with expert views and oversimplifies language development.
5. Defining (non-English) languages as "extra" undercuts proactive support for DLL programs. The public believes that, in a zero-sum world, resources for language support aren't important. Communications professionals need to demonstrate that language support is linked to achievement and explain why.
6. Black box thinking leads to fatalism about dual language learning. Because the public can't imagine how a DLL classroom could function, they don't believe that systemic supports for multiple language learning is possible (and thus, they default to English-only positions).

## Part 3: Who are dual language learners?

The public doesn't understand who DLLs are, or that DLLs share a common identity. This is an important reframing challenge. However, the public does understand that the future is multilingual. Therefore, they are potentially receptive to messages about supporting DLLs and dual language learning. That said, not a single participant had heard the term "dual language learner." But, researchers did find patterns in how people understood the term.

## The Aging Up Cultural Model: Language learners are typically older children or adults.

Interviews revealed a clear and constant tendency for participants to "age up" the learners under discussion. In other words, when talking about language learning, participants needed to be reminded often that the target age range is between $0-8$, not older children. This was particularly common among monolingual participants:

> Participant: I think at this point, more tutoring needs to be available to all of the students, because I don't think that either side are going to be fully understanding of... They're going to comprehend all of the information that they were given, because they only have so much time in the class. It's such a hard thing. You only have an hour or however many. You may have the whole day, but you have all of these subjects to teach in this whole day, so I-

Interviewer: Well, remember, it's like, preschool.

Participant: Oh, it's preschool. That's right, so-

Interviewer: They're maybe not even six years old.

Participant: Oh, that's right, so there's first grade.

The Catching Up Cultural Model: DLLs are consistently a step behind their English-only peers.

Based on the Zero-Sum cultural model, monolinguals, bilinguals, and bilingual-adjacents believe that DLLs are perpetually catching up to their English-only peers because they can only manage a finite amount of language at one time. This thinking overlaps with experts' knowledge of language acquisition. However, experts and members of the public come to different solutions. The public's best solution is to focus more on teaching English and to help children catch up by quickly and parenthetically explaining difficult content in their home language; experts, on the other hand, know that supporting the development of both languages is important and there are many strategies that can be used to achieve this goal.

Researcher: Do you think it would be ideal if there was a lot of Mandarin in the classroom, [or] just a little bit? How do you see that playing out?

Participant: I would say, like, footnotes-just not the main language. If someone gets caught up on something, you know, you can refer back to Mandarin or whatever.

The Exclusion Cultural Model: DLLs risk stigma and isolation because they are not yet fully proficient in English.

It's important to note that monolinguals, bilinguals, and bilingual-adjacents tend to think about DLLs as immigrants or the children of immigrants. Essentially, they focused on children who spoke a language other than English at home; no one assumed that the term DLL refers to children who speak English at home and are learning another language simultaneously.

This caused participants to equate DLLs with a risk of stigma, discrimination, racism, exclusion, and alienation. Generally, for monolinguals, this thinking grew from their view of bilingualism as exclusionary; they believed that DLLs must feel excluded because they do not speak English (just as they themselves feel excluded when they hear people speaking a language other than English). For bilinguals and bilingual-adjacents, this thinking grew from an awareness that English is seen as the dominant language and that English opens doors to employment and financial security.

The fact that people are worried about stigma is telling. People model English as the dominant language of the United States; someone whose dominant language is not English is seen, by default, as a vulnerable outsider. Participants expressed concern for DLLs and supported "smoothing their way" by giving them confidence and using their home language as an aid. They did not support shunning them or forbidding them from speaking their home language outside the home.

Participant: Oh, [we should] develop programs for the people to learn English. Since it is our language, I think that it's our responsibility. It's the person's responsibility also. They have to want to learn to speak English, but I think we should have programs available to people to partake in. Now, if they want to live in their little community and English isn't necessary, then that's fine. But I think it's everyone's personal responsibility to learn the languages of the people that they're going to interact with on a regular basis. As a country, I think that we should have programs available.

Participant: When they would start out, I feel it would be very important for the teacher to be able to communicate very simply and warm to these children who-no, they were born in the United States? Is that what you said?

## Researcher: Yes.

Participant: Okay. They're born here, but they need to know that they are well-accepted in this country. There's nothing wrong with their language. It's of that age it's time to learn English. It might take them a little bit more to learn English because they've already got one language. Still, when they're young, they should pick up quite easily.

The Caught between Cultures Cultural Model: DLLs are constantly pulled between two cultures.

Monolinguals describe DLLs as isolated or torn between two worlds and cultures. For example, people assumed that DLLs were constantly translating between English speakers and their non-English-speaking parents. They described them as not fully immersed in either culture. This touches again on the zero-sum thinking that assumes it is impossible to be fully immersed in two cultures if you spend time in both. This is similar to the monolingual perspective that people possess one dominant language and then translate it into another. The public believes that DLLs can't think in both languages simultaneously.

Participant: It's hard for them. You know, sometimes I've seen where the kids always have to translate everything for... They have to grow up too quick because, you know, they speak more English than the parents do.

Participant: I think in some cases they have a lot of responsibility in the house because their parents may not be bilingual. And so, they have the responsibility sometimes to translate for their parents.
--
Participant: I think there's a huge challenge in that they find themselves lost in the middle of two worlds, where maybe they are going to mispronounce a word in English, and they're probably going to mispronounce a word in whatever language that's secondary they're learning, or simultaneous learning. I think at that point, they're going to find themselves at the starting point, at the learning part of this, that they're not really good at either one yet, and it might take longer to get better at both the languages before they feel comfortable enough to say, "Okay, I've got it. I can only speak in this one language or with this one group."

Bilinguals and bilingual-adjacents also use the Caught between Cultures model, but they view the situation in a much more positive way.

Participant: Advantages, being able to relate with more people. You know, you can share with other people who don't know that language and share your culture at home and even with your parents who maybe don't speak any English. They are going to go through challenges living here not knowing, so you help them. They help translate so their parents understand. You know, "This is what my teacher needs from you." You help the translation. But again, knowledge is power.

## The Nostalgia Cultural Model: In "the past," immigrants assimilated into American life.

Driving monolinguals' thinking about the melting pot and assimilation is a modelling of immigrants of past eras as good assimilators who prioritized learning English. In contrast, today's immigrants continue to speak their native languages.

Participant: My wife's parents, her grandparents emigrated from Russia into Canada. They were so grateful to the opportunity they worked to learn English aggressively to become a part of this new country they were privileged to be a part of. Well again, here with, like with Hispanics, we're printing everything and doubling up and everything is doubled.

Participant: Personally, it saddens me a little bit that people aren't a bit more obligated to speak English. My ancestors didn't speak English, and I think it holds them back personally because it's our language. And Holland made English their national language, changed it from Dutch a few years ago. And I think it's very ironic that we're going the other way a little bit where we might make things bilingual. I think it's not doing anyone favors.

The following monolingual begins to express his feelings about immigration, but then backtracks when he recognizes that his statement may come across as racist. The statement "it's good there's multicultural... I have friends from all over the world..." softens his message before he says something that could be construed as racist.

Participant: But a lot of people obviously... You know, the whole thing's going down. They just kind of come over illegally. And, uh, they just don't even assimilate. They just live with their family that came from Mexico. They don't want to deal with the American culture.

Researcher: So, would you say, what you just described in terms of language, would you say, what it is now in terms of the changes: is it good, is it bad, or is it neither?

Participant: Uh, no, it's good that there's multicultural. I like to learn other people's backgrounds. I have friends from all over the world, pretty much from every culture. I find it interesting, you know, how they're thinking every day, you know, just talking to them, how they live their lives. You know, it's different than mine. Because if everybody was the same, it would be kind of boring. What was the question again?

Bilinguals and bilingual-adjacents did not express this same nostalgia; in their thinking, people have always been coming to the United States and it is to the country's benefit to create space for all languages and cultures.

## Communications Implications

1. People's tendency to "age up" makes it difficult to talk about DLLs. If people naturally assume that DLLs are older children or adults, then advocates need to explicitly and regularly counter this assumption to make people think about DLLs as children age 8 and under.
2. The Catching Up model focuses on DLLs' perceived deficits and obscures their strengths. People are aware that DLLs may be a bit "behind" their monolingual peers at times. While this model is potentially useful, it is also potentially problematic. Participants did not understand why DLLs' academic progress might differ from their monolingual peers and showed no understanding that DLLs are also developing particular strengths that, with the proper support, can lead to important gains. Advocates need to fill in the gaps in people's knowledge without allowing them to default to thinking about deficits.
3. The Exclusion and Caught between Cultures models can increase support for DLLs. People deeply value DLLs' integration and want DLLs to be supported and included in their schools and communities. However, their thinking on how best to support DLLs is not in line with expert views. Communications professionals need to draw on this productive model and fill in missing information so the public will not default to thinking about inadequate solutions.
4. Nostalgia foregrounds the belief that today's immigrants aren't living up to ideals set by their predecessors. Monolinguals' assumptions about how immigrants used to assimilate into US culture, and their assumptions about immigrants today, are deeply unproductive.

## Mapping the Gaps: Key Communications Challenges

This section notes overlaps between expert and public perspectives and "maps the gaps" between them to reveal important communications challenges and opportunities.

## Overlaps between Expert and Public Views

There are important points of overlap between expert and public understandings of DLLs. These overlaps represent common ground that the field can build on to communicate key ideas about DLLs and to increase support for needed programs and policies.

Both experts and the public understand that:

- The number of DLLs in the United States will continue to grow.
- Bilingualism can lead to important cognitive benefits.
- Bilingualism can keep people connected to family and community.
- Bilingualism can lead to economic benefits.
- There are times when DLLs' academic trajectory may differ from students who are not learning two languages simultaneously.

These are areas where expert ideas are productively aligned with public thinking; communications professionals can build on this common ground to shift thinking in new directions. These are good starting points for communicating with the public about DLLs.

## Gaps between Expert and Public Understandings

There is also a set of significant gaps between expert and public understandings of DLLs. Reframing strategies can help address these gaps, and in so doing, shift and expand the public discussion about DLLs. Future communications research will develop and test specific frames (including, for example, values, metaphors, names, explanatory tools, and others) to close these gaps.

1. Language development: Synergistic and productive vs. Zero-Sum. Experts know that learning multiple languages can enhance language development overall, and that children's linguistic competency in their first language can be drawn upon productively as they learn a second. The public believes language is a zero-sum game: one language must dominate the other by pushing it out.
2. Learning: Active and interactive vs. Passive and natural. Experts describe learning as a highly interactive process that requires opportunities to practice with high-quality support. The public
understands learning to be largely passive, especially during early childhood. They think this process happens "naturally" no matter what programs are—or are not—provided to support it.
3. Benefits of bilingualism: Good for individuals and societies vs. Instrumental and individualist. Experts cite a wealth of research about the benefits of bilingualism, its importance for our country, and the value of more bilingual citizens. The public, however, views bilingualism as an "extra" skill that is worth supporting only for those who can afford (academically) to add it, as it will potentially enhance their quality of life.
4. Language diversity: Source of unity vs. Source of exclusion (monolinguals). Experts see bilingualism and language diversity as sources of unity in a country because being able to communicate with more people means more opportunities for connection between and among people. Bilingual and bilingual-adjacent members of the public largely share this view. Monolinguals, however, hold the opposite view; they understand language diversity as a source of division and conflict, in that more languages spoken means that some people will be left out.
5. DLL identity: Crucial and unique vs. Cognitive hole. Experts see DLLs' identity-and the importance of fostering a positive identity as a DLL—as a factor that shapes academic achievement and fulfilment of potential. For the public, this factor is a cognitive hole; it is not on their radar.
6. Language development: Constant practice and growth vs. Frozen. Experts understand that language loss is a constant threat; without supporting a child's home language, it could be lost or underdeveloped. The public, however, deeply believes that if a child can speak and understand a language, that competency is frozen, secure, and will never be lost.
7. Language support: Crucial for student achievement, identity, and a stronger society vs. "Extra." Experts know that language support is important for many reasons, but the public sees language as an "extra" that doesn't warrant public investment and support.
8. Dual language classrooms: Possible with time/effort/support vs. Impossible. Experts see the importance of having dual language programs available for all students and know that, with the right resources, it is possible to support a variety of classroom mixes. The public, however, believes classrooms should be English-only and thinks dual language classrooms aren't realistic.
9. DLLs: Early childhood vs. Adults. Experts hold a definition of DLLs as early childhood learners, while the public's tendency is to "age up" DLLs, imagining them as high school students or older.

## Conclusion: Key Reframing Tasks

Reframing dual language learners and issues related to them involves closing these gaps-not by pursuing communications practices that aren't grounded in evidence, but by using communications opportunities to build new perspectives and to help people adopt new ways of thinking. A systematic assessment of where and how public thinking differs from expert consensus is a crucial resource for setting communications priorities, designing a strategy to meet those priorities, and selecting framing tactics. In this section, FrameWorks offers its analysis of the most important differences for advocates to anticipate and their implications for an overarching reframing strategy. This strategy must:

1. Disrupt zero-sum thinking. This model structures thinking about a host of issues related to DLLs. An effective reframing strategy must break through or displace it.
2. Make it clear that the benefits of bilingualism accrue to society, not merely to individuals. Simply touting the benefits of bilingualism won't change the public conversation in a productive way. The public already assumes that bilingualism leads to many desirable outcomes for individuals. A reframing strategy must channel attention to the shared public benefits of bilingualism in the United States and frame it as an issue that requires a public response.
3. Elevate the unique position of DLLs. The public-and the monolingual public in particulardoesn't see DLLs as a segment of the population. At the same time, though, they assume DLLs are "other people's children" with a deficit in English. An effective reframing strategy will make DLLs visible in a meaningful, positive way.
4. Explain how society can support dual language learning in a variety of ways. The public's fatalistic attitude toward managing multiple languages in a single classroom needs to be eased. A powerful reframing strategy will highlight the multiple, existing, feasible approaches to supporting DLLs.
5. Build a sense of urgency without bringing along undesirable frame effects of crisis messaging. Possible reframes that flow from this analysis (but need to be tested) include foregrounding the sensitive periods for language development and connecting DLLs' identity development to academic achievement.
6. Find effective ways to explain the connection between language and identity. Experts consider a healthy self-identity to be among the most important reasons to foster DLLs' first language competency. The monolingual public lacks a way to think about this concept, so explanatory techniques are needed to bring it to the public's attention.

Directions for future research emerge from the preceding systematic analysis of areas where expert views contrast with existing public understanding. In the next phase of work, researchers will use tested techniques and tools for reducing misunderstanding, promoting consideration of DLL experts' insights, and expanding the public's sense of what to consider as they weigh public options.

## Appendix: Research Methods

## Expert Interviews

To explore experts' knowledge about the core concepts that characterize DLLs, FrameWorks conducted 12 one-on-one, one-hour phone interviews with experts. Half of the experts had a strong research orientation and half had a policy/advocacy background; all interviewees were able to speak to both research and policy. The content of these interviews was subsequently supplemented with details from a recently released report outlining the state of the art. ${ }^{6}$ Interviews were conducted from October to November 2016 and, with participants' permission, were recorded and transcribed for analysis. FrameWorks compiled the list of interviewees, who reflected a diversity of perspectives and areas of expertise, in collaboration with project partners from the Gates, Heising-Simons, and McKnight Foundations.

Expert interviews consisted of a series of probing questions designed to capture expert understandings about who DLLs are, how language acquisition works for DLLs (and others), the benefits of learning more than one language in early childhood, and what needs to happen to support DLLs. In each conversation, the researcher launched a series of prompts and hypothetical scenarios designed to challenge experts to explain their research, experience, and perspectives, break down complicated relationships, and simplify complex concepts. Interviews were semi-structured in the sense that, in addition to pre-set questions, interviewers repeatedly asked for elaboration and clarification and encouraged experts to expand upon concepts they identified as particularly important.

Analysis employed a basic grounded theory approach. ${ }^{7}$ Researchers pulled common themes from each interview and categorized them. They also incorporated negative cases into the overall findings within each category. This procedure resulted in a refined set of themes that researchers also supplemented with a review of materials from relevant literature. FrameWorks revised a draft of the expert story in response to a feedback session conducted with experts in January 2017 and in response to project partners' comments.

## Cultural Models Interviews

To understand the public's thinking, FrameWorks conducted 30 in-depth interviews with members of the public from December 2016 to January 2017. The interviews were conducted in Los Angeles, CA; Phoenix, AZ; Greenville, SC; and Minneapolis/St. Paul, MN. These locations were selected to ensure the sample included people from areas with history as immigrant destinations (i.e., Los Angeles and Phoenix), as well as people from regions that are newer destinations for immigrants (i.e., Greenville and the Twin Cities.)

Cultural models interviews-one-on-one, semi-structured interviews lasting approximately two hoursallow researchers to capture the widely shared, patterned sets of assumptions (i.e., "cultural models"), which participants use to make sense of a concept or topic area. These interviews are designed to elicit ways of thinking and talking about issues-in this case, issues related to DLLs. Interviews covered general thinking about language, and language learning more specifically. They also touched on thinking about culture, education, cognitive development, national and personal identity, and other themes. The goal of these interviews was to examine the cultural models that participants use to make sense of these issues and how they relate to one another, so researchers gave participants the freedom to follow topics in the directions they deemed relevant. Researchers approached each interview with a set of topics to cover, but left the order in which these topics were addressed largely to participants. All interviews were recorded and transcribed with participants' written consent.

Including a wide range of people allowed researchers to identify cultural models that represent shared patterns of thinking across the United States. Participants were recruited by a professional marketing firm and were selected to represent variation along the domains of ethnicity, gender, age, residential location, educational background (as a proxy for socioeconomic status), political views (as self-reported during the screening process), religious involvement, and family situation (married, single, with children, without children, age of children). The professional marketing firm extensively screened participants to ensure the sample was balanced and diverse according to the project specifications, but they did not reveal the topic of the interview. It was important that the participants came to the interview without having done any preparation so researchers could establish their baseline thinking on DLLs and related issues.

The sample included 17 women and 13 men. Of the 30 participants, 17 self-identified as "white" or "Caucasian," five as "Black" or "African American," six as "Hispanic," and two as "Asian." Eight participants described their political views as "conservative," eight as "liberal," and 14 as "middle of the road." The mean age of the sample was 44 years old, with an age range between 21 and 70 . Education was used as a proxy for socioeconomic status; two participants had finished high school, 15 had completed some college, nine had graduated from college, and four had graduate degrees. Half were married, and 18 were the parent of at least one child.

Participants also represented a range of experiences with language. Fourteen participants spoke English only (i.e., they could not read or carry on a conversation in a language other than English); they are referred to as "monolinguals" in this report. Six studied a language other than English as an adult or had experience with more than one language, but only speak English fluently; they are referred to as "bilingual-adjacent." Ten spoke more than one language in early childhood (i.e., they were DLLs); they are referred to as "bilingual." See the summary table below:

| Demographic category |  | Sample |
| :--- | :--- | :--- |
| Gender | Women | 17 |
|  | Men | 13 |
| Race/Ethnicity | White | 17 |
|  | Black | 5 |
|  | Hispanic or Latino/a | 6 |
|  | Asian | 2 |
| Political Views | Conservative | 8 |
|  | Liberal | 8 |
|  | Middle of the Road | 14 |
| Age | Mean | 44 |
|  | Range | $21-70$ |
| Education | High school degree | 2 |
|  | Some college | 15 |
|  | College degree | 9 |
|  | Graduate degree | 4 |
| Marital status | Married | 15 |
|  | Not married | 15 |
| Parental status | Is a parent | 18 |
|  | Is not a parent | 12 |
| Language experience | Monolingual | 14 |
|  | Bilingual-adjacent | 6 |
|  | Bilingual | 10 |

To analyze the interviews, researchers used analytical techniques from cognitive and linguistic anthropology to examine how participants understand issues relevant to DLLs. ${ }^{8}$ First, researchers identified common ways of talking across the sample to reveal assumptions, relationships, logical steps, and connections that were commonly made but taken for granted, throughout an individual's talk and across the set of interviews. In short, the analysis is about patterns discerned from both what was said (how things were related, explained, and understood) and what was not said (assumptions and implied relationships). In many cases, analysis revealed conflicting models that people brought to bear on the same issue. In such cases, one of the conflicting ways of understanding was typically found to be dominant over the other, in the sense that it more consistently and deeply shaped participants' thinking.

Analysis centered on ways of understanding that were shared across participants. Cultural models research is designed to identify common ways of thinking that can be identified across a sample. It is not designed to identify differences in the understandings of different demographic, ideological, or regional groups; this would be an inappropriate use of this method and its sampling frame.

## About the FrameWorks Institute

The FrameWorks Institute is a nonprofit think tank that advances the nonprofit sector's communications capacity by framing the public discourse about social problems. Its work is based on Strategic Frame Analysis®, a multi-method, multidisciplinary approach to empirical research. FrameWorks designs, conducts, publishes, explains, and applies communications research to prepare nonprofit organizations to expand their constituency base, build public will, and further public understanding of specific social issues-the environment, government, race, children's issues and health care, among others. Its work is unique in its breadth, ranging from qualitative, quantitative and experimental research to applied communications toolkits, eWorkshops, advertising campaigns, FrameChecks* and in-depth study engagements. In 2015, it was named one of nine organizations worldwide to receive the MacArthur Foundation's Award for Creative \& Effective Institutions. Learn more at www.frameworksinstitute.org.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of the FrameWorks Institute.

Please follow standard APA rules for citation, with the FrameWorks Institute as publisher.

Fond, M., Smirnova, M., Gerstein Pineau, M., \& Sweetland, J. (2017). When more means less: Mapping the gaps between expert and public understandings of dual language learners. Washington, DC: FrameWorks Institute.

## Endnotes

${ }^{1}$ Quinn, N., \& Holland, D. (1987). Culture and Cognition. In D. Holland \& N. Quinn (Eds.), Cultural Models in Language and Thought (pp. 3-40). Cambridge: Cambridge University Press.
${ }^{2}$ These patterns are sometimes referred to as "cultural models" or simply as "models" throughout the report.
${ }^{3}$ All participant interview excerpts have been edited to remove any personally identifying information and to improve readability. To conduct the analysis, researchers worked from verbatim transcripts of the interviews.
${ }^{4}$ See, for example: FrameWorks Institute, "Framing Early Child Development Message Brief." (2009). Washington, DC: FrameWorks Institute; Bales, S. N. (Ed.). (2013). Talking child well-being and public health in Jacksonville: A FrameWorks MessageMemo. Washington, DC: FrameWorks Institute; O’Neil, M., and Haydon, A. (2016). Reframing Early Childhood Development and Learning in Alamance County: A FrameWorks Core Story Brief. Washington, DC: FrameWorks Institute.
${ }^{5}$ For FrameWorks' work on early child development, see: http://frameworksinstitute.org/u.s.a.html
${ }^{6}$ National Academies of Sciences, Engineering, and Medicine. (2017). Promoting the Educational Success of Children and Youth Learning English: Promising Futures. Washington, DC: The National Academies Press. DOI: 10.17226/24677
${ }^{7}$ Glaser, B.G., \& Strauss, A.L. (1967). The discovery of grounded theory: Strategies for qualitative research. Chicago: Aldine Publishing; Strauss, A.L., \& Corbin, J. (1990). Basics of qualitative research: Grounded theory procedures and techniques. Newbury Park, CA: Sage Publications.
${ }^{8}$ Quinn, N. (Ed.). (2005). Finding culture in talk: A collection of methods. New York, NY: Palgrave Macmillan.

