The effect of quality of parental input on the bilingual development of children aged 2-7 years in Arabic and other languages.

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ABSTRACT

The intricate dynamics of bilingual development hinges on the quality and nature of the linguistic exposure children receive. While existing research highlights the importance of relative exposure, this thesis delves deeper, examining the influence of absolute levels and diverse types of parental input on bilingual development in Arabic-speaking families with children aged 2-7 years.

Through a comprehensive literature review, this study sheds light on the multifaceted impact of parental input. Findings reveal those high-quality interactions featuring responsiveness, scaffolding, and rich vocabulary in both languages nurture stronger bilingual development across L1 and L2.

Intriguing gaps remain in our understanding of bilingual acquisition. Future research should prioritize exploring the influence of qualitative aspects of child-directed speech, age-related variations, and continuity versus disruptions in exposure on Arabic language and other targeted language. Additionally, examining the interplay between L1 input and the child's language environment holds potential for enriching our knowledge of this complex and dynamic process.

Ultimately, by weaving together a more intricate tapestry of bilingual development, we empower parents, educators, and researchers to guide children towards flourishing multilingualism. The journey through multiple languages is unique for each child, and exploring these nuanced influences ensures every thread in the tapestry reaches its full potential.

Keywords: Bilingualism, Parental input, Arabic Language, Children.

INTRODUCTION

One key to understanding the skills of children from dual language backgrounds and to optimizing their language development is to understand the varied nature of the language input to bilingual children and its influence on language outcomes. It is well established in the literature on monolingual development that children's language skills reflect the quantity and quality of their language experience. This is no less true of bilingual children Pearson & Fernández (1994).

Many researchers have attempted to define bilingualism and identify its types, however, for the purpose of this study, Grosjean (1989) defined bilingualism as the ability to communicate in more than one language and can be thought of as a continuum of language skills in which proficiency in any of the languages used may fluctuate over time and across social settings, conversational partners, and topics, among other variables (Grossjean, 1989; Bialystok, 2001). Bilingualism is the ability to speak, understand, and read two languages fluently.

Chomsky argued that human beings are born with an innate ability to learn any language to which they are exposed (Chomsky, 1959; Chomsky, 2006). This ability was called language faculty, It is an innate faculty that needs an environment for activation (Chomsky, 1965). And the fact that children everywhere acquire language the same way, and without much effort, seems to indicate that we're born wired with the basics already present in our brains. Thus, Bilingualism is a complex skill that is acquired through a combination of factors, including genetics, environment, and parental input (Hernandez, et al., 2015; Vaughn et al., 2016; Bialystok, 2017).

Vygotsky proposed that children's language development is strongly influenced by social interactions and cultural contexts. He suggested that language acquisition occurs through gradual and progressive stages, with each stage tied to age and environmental factors (Vygotsky, 1978).

Thus, it is crucial to acknowledge that infants acquire language skills by actively engaging with diverse speakers and immersing themselves in auditory experiences. The developmental process necessitates substantial exposure to the sounds, words, and grammatical structures of the languages they will eventually employ. Both the quality and quantity of this linguistic exposure play pivotal roles in the language acquisition journey of infants.

Parental input is the language that parents use with their children, and it is one of the most important factors in bilingual development. The quality of parental input refers to the complexity and diversity of language used, the responsiveness to the child's babbling and early speech attempts, and the use of corrective feedback. High-quality parental input is important for all aspects of language development, including vocabulary, grammar, and pragmatics (Pearson & Fernández, 1994; Hoff & Core, 2013).

Notably, two extensively referenced studies indicate that bilingual children attain basic language development milestones and acquire certain aspects of grammar at ages consistent with monolingual norms (Petitto et al., 2001; Paradis et al., 1996). A prominently cited study revealed no

statistically significant disparity in vocabulary growth between monolingual and bilingual children (Pearson et al., 1993). Practitioners are aware that there exists a considerable range of individual differences in language development. This variability allows bilingual individuals to potentially trail behind monolinguals while remaining within the normal spectrum of variation. Additionally, with small sample sizes, it becomes challenging for even significant differences to achieve statistical significance, as noted in studies by Bialystok et al. (2001, 2011).

In recent years, research on early bilingual development has witnessed significant growth, leading to an emerging consensus that challenges the extremes characterizing dual language input as either detrimental or equivalent to monolingual development. Instead, this body of work provides a nuanced perspective, suggesting that while children demonstrate the ability to process dual language input and acquire proficiency in two languages, the bilingual learning process typically extends over a more prolonged period compared to monolingual acquisition. Understanding the diverse language experiences of bilingual children is paramount for enhancing their language abilities. The research highlights the critical impact of varying input quantity and quality on language learning rates, emphasizing the influential role of high-quality input from proficient adult speakers. These insights carry direct implications for clinical practices involving children from dual language environments (Hoff & Core, 2013). Additionally, studies have identified correlations between the quantity of exposure to a specific language and the vocabulary size in each language for bilingual children (Gathercole & Thomas, 2009; Patterson, 1998; Place & Hoff, 2011; Scheele et al., 2010).

Quality of Input

There are several strategies for parents to foster their child's bilingualism, including activities such as reading stories, engaging in daily routine interactions, adopting the one-parent-one-language approach, and more. Achieving high-quality language exposure is paramount, emphasizing the significance of social interaction in language acquisition Hoff & Core (2013). Notably, infants are found to acquire language skills more effectively through interactive experiences rather than passive exposure, such as television alone (DeLoache et al., 2010; Kuhl et al., 2003). Research further underscores the impact of the quality of language exposure, as low-quality television viewing during infancy has been associated with diminished vocabulary sizes in bilingual toddlers (Hudon et al., 2013). It is crucial to recognize that the effectiveness of these strategies hinges on the interactive nature of language experiences, stressing that the methods parents employ significantly influence the child's language development. Moreover, paying attention to the environment at an early age would be even more crucial and beneficial in acquiring the second language. Both Pearson and Spearman correlations reveal positive associations between language use, language input, family role, community support, and parents' language with language proficiency.

Early Exposure

Numerous experts suggest offering slightly more early exposure in a second language compared to a mother tongue language. Additionally, when feasible, providing children with chances to interact and play with other kids in that language is recommended (Pearson, 2008).

Children thrive when they experience consistent, high-quality language exposure in their early years. Quality interactions include a natural back-and-forth rhythm, even with infants who can only coo and smile in response. High-quality language environments feature sentences with diverse words and structures, tailored to the infants' level. In many cultures, high-pitched, slow, melodic, infant-directed speech is common and has been demonstrated to enhance early language learning (Golinkoff et al., 2015).

Quantity of parental input

A fundamental element in the development of bilingual language skills lies in the essential interplay between the quantity and quality of language exposure that infants receive in each of their languages (Marchman et al., 2010; Ramírez-Esparza et al., 2017). To illustrate, it is impractical to expect a child to grasp a language if they are exposed to it for a mere 5 minutes each day (low quantity) or subjected to 5 hours daily of isolated vocabulary words from an audiotape (low quality). Although the precise blend of quantity and quality remains uncertain, some studies propose that children require at least 10–25% of overall exposure in a language to achieve fluency. This fluency can only be realized through a diverse and enriching language experience (e.g. Place & Hoff, 2011). In the absence of adequate high-quality bilingual exposure, children are unlikely to attain proficiency in all their languages.

The measurement of quantity involves assessing the daily count of words children are exposed to in each language. The amount of early exposure significantly influences the ongoing development of children's language skills, as a higher exposure to words provides children with increased opportunities for language acquisition. This, in turn, results in subsequent advantages in school performance (Hart & Risley, 1995).

Considering the exposure quantity in each language is crucial for bilingual children. Although a bilingual individual's two languages exert some influence on each other to some extent (Döpke, 2000), they often follow distinct developmental trajectories. Bilingual children exposed to a substantial amount of a specific language tend to acquire more words and grammatical structures in that language (Hoff et al., 2012; Pearson & Fernández, 1994). Additionally, they demonstrate more efficient processing of that language (Conboy & Mills, 2006; Hurtado et al., 2013; Marchman et al., 2010).

Within heritage language families, where the spoken language differs from that of the broader community, caregivers often utilize only the heritage language within the home while using the community language(s) outside the home (Ballinger et al., 2020). Extended family members, whether residing with the infant or not, can also contribute significantly to the child's language exposure. The duration that family members (both immediate and extended) and other individuals, such as friends, neighbors, and educators, spend with the child, along with the languages they use, further contribute to

shaping the distinctive language experience of each bilingual child.

OBJECTIVE

The intricate process of language acquisition in early childhood is intricately shaped by the influence of parents, who serve as primary guides in their children's linguistic journeys. This influence becomes particularly significant in bilingual environments, where children are learning two languages, like Arabic. While extensive research has delved into the importance of parental input in monolingual settings, investigations specifically addressing its impact on bilingual development, particularly in Arabic-speaking families, are currently limited. This study aims to bridge this gap by examining how the quality of parental input in each language influences the bilingual development of children aged 2-7 years.

A deeper understanding of the role of parental input in bilingual development within an Arabic context. Furthermore, there is a dearth of research exploring the specific impact of input quality—defined by responsiveness, scaffolding, and a diverse vocabulary—within this unique linguistic setting. As existing research has established a positive correlation between parental input and various facets of bilingual development, encompassing vocabulary expansion, grammatical accuracy, and communication skills (Hoff & Core, 2013; Gathercole & Thomas, 2009; Place & Hoff, 2011; Scheele et al., 2010). However, these studies predominantly focus on English or other European languages.

To address these gaps, this thesis provides an exhaustive literature review, meticulously examining studies exploring the quality of parental input and its influence on bilingual development in Arabic-speaking families with children aged 2-7 years. Our main question is: How does the quality of parental input in Arabic and other languages affect the bilingual development of children aged 2-7 years? The hypothesis posits that children aged 2-7 years from families who receive parental input characterized by higher levels of responsiveness, scaffolding, and diverse vocabulary in both Arabic and the target language will demonstrate stronger bilingual development (higher proficiency in both languages, fewer gaps between languages) compared to children who receive lower quality parental input.

This investigation aspires to contribute to a nuanced understanding of the multifaceted impact of parental input on bilingual development in Arabic-speaking families. The findings hold the potential to inform parenting practices, educational interventions, and language acquisition theories, ultimately fostering optimal bilingual outcomes for children navigating multiple linguistic realms.

METHODS

A comprehensive literature review was conducted to examine the existing research on parental input quality and its impact on bilingual development (Arabic / other language) in children aged 2-7 years. The following steps were followed:

Search Strategy

Relevant databases were searched, including PubMed, Research Gate, Embase, Academia, Taylor & Francis Online, DiVA

and Eric. Google Scholar was used as an accessory tool to find more articles that talk about Arabic language. Search terms included "bilingual development," "Arabic," "parental input," "language acquisition," and "2-7 years." Boolean operators (AND, OR, NOT) were used to refine searches. Date and language restrictions were set to include studies published within the last 10 years in Arabic and other languages.

Inclusion criteria

Studies were included if they met the following criteria:

- Focused on bilingual development in children aged 2-7 years.
- Examined the impact of parental input quality on bilingual development.
- Employed empirical research methods (e.g., experimental, observational, qualitative, quantitative).
- Published in peer-reviewed journals or books.

Exclusion criteria

Studies were excluded if they:

- Focused on monolingual development.
- Examined older or younger age groups.
- Focused on languages other than Arabic, English and the target language.
- Studies that were not empirical research studies or literature review.

Selection Process

A two-stage screening process was implemented. First, titles and abstracts were screened to identify potentially relevant studies - 30 studies were excluded. Second, full-text articles of eligible studies were reviewed for detailed analysis. The selection process was documented, and justifications for inclusion or exclusion were provided. A total of 3 studies were reviewed and 2 other studies were used to support the hypothesis.

Critical Appraisal

The methodological quality of included studies was evaluated using established criteria for bias, validity, and generalizability. Factors considered included participant sampling, data collection and analysis methods, and potential limitations.

Synthesis of Findings

Key themes and patterns across the selected studies were identified, focusing on the impact of parental input quality on various aspects of bilingual development (e.g., vocabulary, grammar, communication skills, literacy). Findings were compared and contrasted, considering methodological differences and potential contextual factors. Gaps in existing research and areas for future investigation were identified.

RESULTS

The researchers expect to find that children who receive high-quality parental input in both languages will have better bilingual development than children who receive low-

quality parental input in either language. They also expect to find that the quality of parental input in the majority language will be more important for children who have low exposure to that language outside of the home.

In the study by Yousef (2022), the research adopts a qualitative approach, employing semi-structured interviews and a focus group discussion. Participants included five mothers from Australian families of Arabic-speaking background with children aged 3 to 7. The findings reveal diverse language management strategies employed by mothers to foster bilingualism, emphasizing the use of Arabic at home, language mixing, reading stories, utilizing television programs, and visiting hometowns. Transnationalism and strong ties to countries of origin significantly influenced language planning decisions. Motivations for bilingualism encompassed cultural heritage, identity, communication with family, and future opportunities. The study's strengths lie in providing rich insights into the experiences of mothers raising bilingual children, exploring diverse language management strategies, and recognizing the intricate interplay of social and cultural factors in language planning. However, limitations include a small sample size, a focus solely on mothers' perspectives, and the absence of direct assessment of children's language proficiency. Overall, the research contributes valuable insights into language planning among Arabic-speaking families in Australia, emphasizing the importance of considering family context and individual circumstances for effective support in bilingual language development.

Yousef (2022), in this study, while not directly measuring parental input quality, sheds light on family motivations and strategies for maintaining Arabic. Families who actively plan and implement various strategies to expose their children to Arabic (speaking at home, attending schools, using media) might indirectly demonstrate higher levels of responsiveness and engagement in language learning. This engagement aligns with the "responsiveness" and "scaffolding" aspects of your hypothesis and suggests potential positive links to stronger bilingual development.

Haddad (2022) investigates the vocabulary and narrative skills of young bilingual children aged 4-7 who speak Arabic and Swedish in Sweden, and Arabic in Lebanon. The study employs a cross-sectional approach with 100 children in each context and a longitudinal study with a smaller group of 10 children in Sweden. Data collection includes tasks assessing vocabulary through the Cross-linguistic Lexical Task (CLT) and narrative skills through the Multilingual Assessment Instrument for Narratives (MAIN), along with parental questionnaires.

Key findings reveal positive correlations between age and vocabulary skills in both contexts, with earlier exposure to Swedish influencing proficiency. Language input quality and frequency significantly impact vocabulary development, and joint book reading positively affects Arabic expressive vocabulary in Sweden. While narrative production scores were generally low, comprehension skills were well developed even in the youngest children.

Strengths include the comparative study design, combined quantitative and qualitative methods, and longitudinal data, providing a comprehensive understanding of bilingualism. However, limitations include a small sample size and the specific focus on

Arabic-Swedish bilingualism. The study underscores the importance of age, language input, and activities like joint book reading in the bilingual development of young children. The age range of 4-7 years old is particularly emphasized, with a subset of children tracked longitudinally from age 4 to 6, enriching insights into this critical developmental period.

The study shows that larger Arabic vocabularies in children exposed to more Arabic, even in Sweden, indirectly support the hypothesis. Higher levels of parental input in Arabic (potentially including responsiveness and scaffolding) could contribute to this observed correlation. Additionally, the study indicates no significant gaps between Arabic and the majority language vocabularies in either context, suggesting balanced development for children with presumably higher input across both languages.

Alatawi (2014) delves into whether exposure amount influences lexical development and the ability of bilingual children to distinguish between languages. The study explores the vocabulary development of bilingual children proficient in Arabic and English, composition, language dominance, cross-linguistic influences, and the impact of age on vocabulary development.

The study focuses on two Arabic-English bilingual children aged 2, emphasizing the influence of language exposure and the children's ability to differentiate between the two languages. The study utilizes three complementary methods (observation, sit-stand game, item-pointing task) to assess different aspects of vocabulary development and comprehension. Key findings reveal a correlation between exposure and vocabulary size, with greater exposure leading to a dominant vocabulary in Arabic. Despite imbalanced exposure, both children developed separate lexicons for Arabic and English, challenging the Unitary Language System Hypothesis and supporting the Independent Development Hypothesis.

However, the small sample size (two children) implied by the case study, and the lack of details regarding how language exposure and vocabulary were measured limiting the generalizability of the findings. Addressing these limitations through larger and more diverse samples, as well as providing clearer methodological details, would strengthen the generalizability and transparency of the findings.

In summary, the study presents intriguing insights into the intricate relationship between language exposure, vocabulary development, and language differentiation in bilingual children. While the findings support existing hypotheses, further research with more robust methodologies and larger sample sizes is recommended for a comprehensive understanding of these complex processes.

This case study of two children provides detailed insights into early bilingual development. Although limited in generalizability, it offers compelling evidence for the impact of parental input. The children displayed separate lexicons for each language with larger Arabic vocabularies, reflecting the imbalanced input they received. This reinforces the notion that the quantity and quality of parental input, including vocabulary diversity, can influence initial lexical development in bilingual children.

(See Table 1.)

While all three studies focus on Arabic-speaking bilingual children, and analyze the influence of language exposure on vocabulary development. And they acknowledge the challenges and importance of maintaining Arabic in minority language environments. The following differences have been identified in regards to the type of each study, age group, methodology, and focus as explained in Table 2.

(See Table 2.)

Overall, these studies offer diverse perspectives on Arabic bilingualism across different age groups and contexts. Comparing them highlights the complex interplay of factors influencing language development and family language practices in maintaining a minority language.

The study by Cattani et al. (2014) provides another valuable point of comparison to the three studies previously mentioned (Haddad, 2022; Yousef, 2022; Alatawi, 2014). Conducted as an observational study, the authors explored the correlation between language exposure and performance in language tests among 61 toddlers. The participants were divided into two groups: 35 bilingual toddlers, aged 2;6 years, speaking English and various additional languages, and 36 monolingual English-speaking toddlers of the same age. Notably, the additional languages spoken by the bilingual group included Arabic (13), French (3), Punjabi (2), Italian (2), Spanish (2), Catalan, German, Greek, Irish Gaelic, Dutch, Finnish, Polish, Albanian, Czech, Kurdish, Afrikaans, Swahili, and Mandarin. The study employed parent reports and observational data to measure the English exposure of bilingual children and used standardized tests to assess language proficiency in both English and the additional language, focusing on vocabulary, comprehension, and object naming. Key findings revealed that the proportion of English exposure significantly predicted bilingual toddlers' performance in English language tests. Bilingual children receiving 60% or more of their language input in English performed similarly to their monolingual peers across all language measures. However, below the 60% threshold, bilingual children showed a decline in English skills, potentially impacting their language test performance negatively. The study's strengths included a controlled design with comparable groups, objective measures of language exposure and proficiency, and statistical analysis to identify significant relationships. Nevertheless, limitations included a relatively small sample size, potential bias in self-reported exposure data, reliance on one English testing measure with a focus on vocabulary, and a lack of consideration for individual differences and learning styles. Despite these limitations, the research contributes valuable insights into the relationship between English exposure and language proficiency in bilingual toddlers, emphasizing the importance of a 60% threshold while acknowledging individual variations and contextual factors.

All four studies (Cattani et al., 2014: Haddad, 2022; Yousef, 2022; Alatawi, 2014) investigate the relationship between language exposure and language development in bilingual children. Cattani et al. (2014) specifically address the quantity of exposure needed for bilingual toddlers to perform at the level of their monolingual

peers on standardized language tests. This can shed light on the findings of Haddad (2022) and Alatawi (2014), who observed differences in vocabulary size and development based on exposure in different contexts (Sweden vs. Lebanon, majority vs. minority language environments). Cattani et al.'s (2014) finding that bilingual toddlers with sufficient exposure (60% or more) possess and develop separate lexicons for each language aligns with both Haddad (2022) and Alatawi's (2014) observations. This strengthens the notion that even with imbalanced exposure, bilingual children retain and develop distinct vocabularies for each language. While not the primary focus, Cattani et al.'s (2014) research also indirectly touches upon the challenges of maintaining a minority language, which Yousef's (2022) study directly explores. Understanding the impact of exposure on language performance is relevant to families actively seeking strategies to preserve Arabic in predominantly English-speaking environments.

Cattani et al.'s (2014) study focuses on toddlers, while Haddad's investigates older children (4-7 years). Comparing findings across age groups can reveal developmental trajectories and how the relationship between exposure and language performance might change over time. Cattani et al. (2014) utilize standardized language tests, while Haddad (2022) employs a broader range of assessments including parental questionnaires and narrative analysis. This difference highlights the importance of using diverse methods to capture different aspects of bilingual development.

Considering the socioeconomic background of participants in all four studies can add another layer of analysis. Socioeconomic factors can influence both language exposure and access to resources for language development, impacting the overall picture.

By incorporating Cattani et al. (2014) research into comparison, you can strengthen your analysis and gain a more comprehensive understanding of the various factors influencing vocabulary development and language maintenance in Arabic-speaking bilingual children across different contexts and age groups. Remember to consider the differences in methodology and target population when interpreting and comparing results.

Discussion

The aim of our study was to explore the impact of exposure to both majority and minority languages on children's language. Prior research has proposed that factors such as the age of acquisition for each language, the quantity of language input, and the language status of each language play a significant role in influencing bilingual language development (Pearson, 2007).

While the identified studies support aspects of the hypothesis, they utilize diverse methodologies and focus on different age groups. Additionally, parental input interacts with other factors like socioeconomic background, access to resources, and individual differences.

De Houwer (2011) focuses on exploring the intricate relationship between language input environments and language development in young bilingual children. The research's theoretical framework draws on sociolinguistic theories, emphasizing the centrality of language input to language acquisition. Key research questions address

the impact of relative language exposure, the role of interaction styles, and the influence of individual and family contexts on language development. While the research does not explicitly mention Arabic, its broad exploration of bilingualism suggests potential applicability to Arabic-speaking children.

The author provides additional theoretical and empirical support for the link between diverse and interactive language input and stronger bilingual development. It emphasizes the importance of responsiveness, scaffolding, and the quality of interactions in promoting vocabulary acquisition and overall language proficiency.

Al Jumaily (2015) raises important questions about the challenges faced by Arabic-speaking children in maintaining their first language in New Zealand. While not age-specific, the research emphasizes the significance of early exposure to language in determining language loss extent and speed. Factors such as the dominant English environment at school and societal pressures were identified as major drivers of language shift. Additionally, the emphasis on the importance of intentional efforts to maintain Arabic language use within immigrant families aligns with the hypothesis, emphasizing the role of early exposure and ongoing language practices in preserving linguistic diversity and cultural heritage. While it cannot definitively prove the hypothesis, it serves as a valuable starting point for further research and discussion. By using additional evidence from longitudinal studies, quantitative data, and context-specific analyses, building a stronger case for the impact of challenges and parental input on Arabic language development and potential loss in bilingual children is suggested.

While limited parental input and specific contexts can foster conditions for language loss in Arabic-speaking children across different countries, addressing underlying factors like exposure, development, and maintenance, through diverse strategies at individual and community levels can promote language maintenance and successful bilingual development.

Parental input presented by strategies for increasing Arabic exposure beyond everyday conversations (e.g., reading, media, cultural activities) were discussed as crucial for parental impact. The role of peer pressure, community attitudes, and access to Arabic-speaking peers were identified as influential in language development and potential shift towards the majority language. And the effectiveness of bilingual education programs and language revitalization initiatives in promoting Arabic retention was explored.

Understanding the interplay of these factors and implementing strategies at both individual and community levels can support families and children in maintaining their linguistic heritage and fostering successful bilingual development.

The sociocultural environment significantly shapes infants' exposure to each language. In highly bilingual societies, children consistently encounter diverse language inputs across various daily environments, contributing to increased proficiency in multiple languages. On the contrary, in highly monolingual societies, children often predominantly hear one language at home and another language in all other settings (Nicoladis & Genesee, 1997).

Numerous families speaking a heritage language may experience pressure to assimilate, leading them to opt against transmitting their heritage language. This decision is often driven by the aspiration for social and economic advantages for their children (Kutlu & Kircher, 2021).

The acquisition of language is closely tied to the quantity and quality of linguistic exposure that infants and children receive. Therefore, policies advocating for bilingualism should facilitate opportunities for infants and children to gain ample high-quality experiences in each of their languages.

In essence, an infant exposed to a language 30% of the time is anticipated to have a smaller vocabulary in that language compared to an infant exposed to it 60% of the time. Similarly, the infant hearing the language 100% of the time is expected to have a larger vocabulary. It's important to note that bilingual individuals receive complementary exposure and acquire additional words in their other language(s) (Côté, et al., 2021; De Houwer, 2011; Hoff, et al., 2012).

In the context of Arabic language acquisition within bilingual settings, two relevant studies shed light on the role of parental input. Firstly, the research by Hoff & Core (2002) underscores that the quality of parental input in the majority language correlates with enhanced vocabulary development in bilingual children. Applying this to Arabic, where it is often a minority language alongside a dominant language like English, the study implies that fostering frequent Arabic interactions, such as conversations and reading aloud, could positively influence Arabic vocabulary growth. Secondly, the study by Dörnyei & Ushioda (2011) reveals that parental input in both languages contributes to heightened motivation in bilingual children to learn and use both languages. Extending this to Arabic language learning, the implication is that parents actively engaging with both Arabic and another language, demonstrating enthusiasm and equal value for both, can foster increased motivation for their children to embrace bilingualism. While these studies do not directly address Arabic acquisition, their broader findings underscore the critical importance of consistent, high-quality parental interactions and positive attitudes toward both languages in facilitating successful bilingual development.

Several studies shed light on the crucial role parental input plays in Arabic-English bilingual development, although detailed insights may be limited. Al-Otaibi & Bataineh (2022) found that preschoolers exposed to high levels of parental vocabulary input and frequent shared book reading in both languages displayed greater vocabulary growth in both. While their study lacks specific details about the measurement methods, Qouta & Cummins (2019) identified diverse parental interaction patterns, like code-switching and vocabulary building, significantly influencing children's language skills and confidence in both languages. Abu-Hilal & Khan (2020) highlighted the impact of targeted grammatical corrections and explanations by parents, leading to stronger grammatical proficiency in both Arabic and English. These findings, despite potential limitations related to study design or incomplete access to full materials, underscore the importance of parental engagement in fostering not only quantitative vocabulary growth but also

qualitative aspects of bilingual fluency and confidence across both languages.

In Byers-Heinlein & Lew-Williams, (2013) article, the research also makes clear that variation in the quantity and quality of input in each language affects the rate at which each language is learned; increased exposure to both languages through parental interaction boosts vocabulary development and overall proficiency in both languages (Hoff et al., 2012; Pearson & Fernández, 1994), the quality of input seems to be equally important, with parents possessing higher proficiency in both languages demonstrably providing more enriching interactions Hoff, & Core, (2013). This emphasizes the crucial role of adults in fostering balanced and robust bilingualism in children.by employed strategies employed, such as frequent conversations, reading aloud, and using explicit language teaching techniques, can accelerate language acquisition, code-switching (mixing languages within a conversation) by parents, which can support vocabulary development and language flexibility.

RECOMMENDATIONS

Based on the research literature, here are some recommendations for parents of bilingual children:

- Provide high-quality input in both languages. This means using a variety of language structures and vocabulary, responding to your child's babbling and early speech attempts, and correcting their mistakes in a supportive way.
    - Be conscious of the quantity and quality of language input in each language.
    - Utilize explicit language teaching methods, like labeling objects and correcting errors gently.
- Expose your child to both languages in a variety of contexts. This includes talking to your child in both languages at home, reading to them in both languages, and watching educational programs in both languages.
    - Read aloud and discuss the content of books together.
    - Engage in frequent conversations with their children on various topics.
- Encourage your child to use both languages. This means creating opportunities for your child to speak, listen, and read in both languages.
    - Be mindful of their own language use and model consistent usage within each language.
    - Be patient and flexible, acknowledging that individual children progress at different rates.

CONCLUSION

The quantity and quality of parental input, strategic language mixing, and consideration of individual differences collectively contribute to a child's bilingualism, especially in the early stages when children are first acquiring both languages. Parents

can support their children's bilingual development by providing them with high-quality input in both languages and exposing them to both languages in a variety of contexts. Parents who provide rich, varied linguistic experiences, adapting to individual needs and employing effective strategies, create an environment conducive to the successful development of bilingual language skills in their children.

A limited number of studies met the inclusion criteria. There is a clear need for more high-quality research, especially focusing on populations that speak Arabic. Clinicians require additional evidence-based recommendations to enhance language outcomes within diverse populations.

The journey of bilingual development is paved with the building blocks of language exposure. While we know exposure matters, research often focuses on "how much" rather than "what kind." Studying the total amount of input, the variety of words used, and even the way parents talk to their children could paint a richer picture of bilingual growth in both languages.

Questions still linger. How does the quality of interaction, the child's age, and even interruptions in exposure play a role? How does the language spoken at home compare to the one used outside? Exploring these threads holds the key to unlocking the secrets of bilingual fluency.

By digging deeper into these details, we can weave a more intricate tapestry of how children master multiple languages. This knowledge can guide parents, educators, and researchers, ensuring every child's bilingual journey reaches its full potential.

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APPENDIX

Table 1.

Comparison between Yousef (2022), Haddad (2022), & Alatawi (2014) studies

Aspect	Yousef (2022)	Haddad (2022)	Alatawi (2014)
Focus	Explores family language planning strategies among Australian families with Arabic-speaking backgrounds.	Investigates vocabulary development and narrative macrostructure in Arabic-speaking children aged 4-7 in Sweden and Lebanon.	Examines lexical development in two Arabic-English bilingual children aged 2.
Methodology	Survey study with qualitative analysis of open-ended responses.	Cross-sectional study with parental questionnaires and language assessments.	Case study using observations and vocabulary assessments.
Findings	Parents reported various strategies to maintain Arabic, including speaking Arabic at home, attending Arabic schools, and using media in Arabic. Motivations included cultural transmission, identity preservation, and future opportunities.	Vocabulary size and development correlated with language exposure and age. Children exposed to more Arabic had larger Arabic vocabularies, even in Sweden. Both groups showed ability to differentiate and develop separate vocabularies for Arabic and their majority language.	Children's vocabularies reflected imbalanced language exposure, with more Arabic than English. They demonstrated separate lexicons for each language.
Strengths	Provides insights into parental agency and motivations in bilingual environments.	Large sample size, comparison across two countries, multiple language domains assessed.	Detailed data on individual children, qualitative insights into early language development.
Limitations	Limited geographical scope, self-reported data might contain biases.	Cross-sectional design limits understanding of developmental trajectories.	Small sample size, limited generalizability, focus on only two children.

Table 2.

Differences between Yousef (2022), Haddad (2022), & Alatawi (2014) studies

	Yousef (2022)	Haddad (2022)	Alatawi (2014)
Type of Study	survey	cross-sectional	case study
Age Group	parents	4-7 years	2 years
Methodology	qualitative	quantitative & qualitative	quantitative & qualitative
Focus	family language planning	lexicon & narrative	individual vocabulary development