

Bilingualism practice in the early years

Introduction:

Bilingualism refers to the ability to communicate in two languages with varying degrees of fluency and proficiency, shaped by individual linguistic experiences and contextual factors (Baker, 2021). This concept is typically classified as simultaneous bilingualism, where both languages are acquired from birth, or sequential bilingualism, where a second language is learned after the first is established (Byers-Heinlein and Lew-Williams, 2018).

This paper examines bilingualism's cognitive and linguistic benefits, role in brain development, and impact on language acquisition. Additionally, it addresses common misconceptions, explores the connection between bilingualism and creativity, and evaluates the influence of educational policies on bilingual learning.

To illustrate how bilingualism is introduced in early childhood settings, this paper refers to the attached video activity, in which a practitioner engages children in a bilingual birthday celebration (English and Portuguese) to facilitate learning through interactive methods. Drawing on theoretical perspectives and empirical research, this discussion highlights the long-term advantages of bilingual education in early childhood.

Benefits of Bilingualism in Early Childhood

This section analyses the cognitive and linguistic benefits of bilingualism, focusing on its impact on brain development and early childhood education.

Bilingualism strengthens cognitive function, particularly working memory, which plays a vital role in the effective retention and retrieval of information. Engaging with more than one language enhances children's ability to focus attention, solve problems, and perform well academically (St. Augustine College, 2024). These benefits arise because the bilingual brain must constantly manage and switch between linguistic systems. This process activates key brain regions, including the **dorsolateral prefrontal cortex** and the **anterior cingulate cortex**, which govern executive functions such as attention control, inhibition, and task shifting. As bilingual children adapt their language use to different social contexts, they develop **cognitive flexibility** and the ability to adjust to new demands and prioritise information effectively (Goksan et al. 2020).

Over time, this sustained mental activity enhances neural connectivity and increases **grey matter density** in areas such as the **inferior parietal lobule** and **inferior frontal gyrus**, which are linked to language control and vocabulary access (Hofman, 2020).

Beyond cognitive advantages, bilingualism contributes significantly to language development by strengthening both oral and written language skills. Exposure to multiple languages enhances the brain's capacity to detect and interpret complex linguistic patterns, supporting improved comprehension and overall communicative competence (Tabellion, 2024). Studies indicate that bilingual children demonstrate greater grey matter density in the **inferior parietal lobule**, a region associated with vocabulary acquisition, language switching, and syntactic processing. This structural enhancement reflects the bilingual brain's increased responsiveness to linguistic structures and its ability to manage multiple language systems simultaneously (Hofman, 2020).

Additionally, greater activation has been observed in the **superior temporal gyrus**, a region involved in auditory discrimination and phonological awareness. This enables bilingual children to identify subtle variations in speech sounds across languages, which directly supports listening accuracy and the development of foundational literacy skills such as reading and spelling (Kuipers and Thierry, 2015).

A practical example of this can be observed in the bilingual birthday celebration activity, where children are exposed to a peer's home language (Portuguese) through play-based learning. This illustrates how everyday classroom experiences can support bilingual development. Activities such as singing and practising vocabulary promote inclusion while engaging brain regions associated with speech, memory, and auditory processing (Smidt, 2016). This approach aligns with the Curriculum for Wales (2022), which emphasises the importance of valuing learners' home and community languages and promoting language acquisition through meaningful, play-based experiences that support communication, identity, and cognitive development.

Myths about the Bilingual Brain

As previously discussed, bilingualism provides substantial cognitive benefits and is intrinsically linked to brain function. One notable aspect of bilingual cognitive function in early childhood is **code-mixing** (Walla, 2017), a natural linguistic process in which children alternate between languages within a single sentence or conversation.

Despite its widespread occurrence, code-mixing is often misinterpreted as a sign of linguistic confusion or developmental delays. Frequent alternation between languages is believed to interfere with language differentiation and hinder the development of clear grammatical structures, which may delay proficiency in both languages (Byers-Heinlein and Lew-Williams, 2018). While some view this as evidence of linguistic confusion, Bialystok (2017) argues that code-mixing is a strategic aspect of bilingual development, demonstrating cognitive flexibility and metalinguistic awareness.

This can be observed in the bilingual birthday celebration activity, where code-mixing supports effective communication. As the practitioner introduces key vocabulary in both languages, children reinforce comprehension and participation, demonstrating code-mixing as a natural and strategic linguistic process (CU Boulder School of Education, 2019).

Moreover, bilingual children regulate their language use according to context and audience, employing code-mixing as a communicative strategy when specific vocabulary is unavailable (Byers-Heinlein et al. 2021). This adaptive process strengthens syntactic awareness and cognitive flexibility, enabling more efficient language processing and the development of higher-order linguistic skills (Khan, 2022).

Bilingual Approaches in Practice

The acquisition of an additional language is a **gradual process**, shaped by **individual linguistic experiences and environmental factors** (Centre for Research in Early Childhood, 2021). A practical application of bilingual learning in early childhood education is the implementation of dual-language immersive activities, an approach that facilitates the simultaneous acquisition of two languages, fostering bilingual proficiency, biliteracy, and cross-cultural competence (CQEL, 2024).

As illustrated in the video activity, a bilingual birthday celebration, in which all children actively engage with a peer's home language through structured and meaningful interactions, corresponds with the Early Production Stage of language acquisition (Montsaye Academy, 2019). During this phase, learners begin to identify and articulate basic words and phrases, frequently relying on repetition and modelled speech. Through participation in interactive activities, such as singing a bilingual birthday song and practising key phrases, children receive comprehensible input (Robertson and Ford, no date), which supports the natural acquisition of language within an engaging and supportive learning environment.

This aligns with Vygotsky's Sociocultural Theory (Brodie, 2024), which posits that language development is facilitated through social interaction and collaborative learning. By participating in a bilingual learning environment, with peers and practitioners providing scaffolding, children receive guided support within their Zone of Proximal Development (ZPD), enabling them to develop new linguistic structures in a purposeful and interactive setting (The Education People, 2021).

Welsh Policies Supporting Bilingual Education

The increasing linguistic diversity within early years settings necessitates pedagogical approaches that are inclusive and responsive to children's language backgrounds (Gorrara et al. 2020). Contemporary Welsh education policies, including the Curriculum for Wales (2022) and the English for Speakers of Other Languages (ESOL) Policy for Wales (Welsh Government, 2019), advocate for learner-centred practices that promote language development, cultural identity, and equity by recognising the value of children's linguistic backgrounds. These frameworks emphasise the importance of creating environments where bilingualism is viewed as a resource, with children bringing unique cultural and linguistic assets that enrich the learning experience. The Curriculum for Wales (2022) particularly highlights the need to foster learners' confidence in both their home languages and the languages they are acquiring, which contributes to their cognitive and social development.

The Global Futures strategy (Welsh Government, 2022) supports this vision by urging schools to offer opportunities for children to engage with and develop proficiency in a range of languages, including those spoken at home. It encourages schools to integrate diverse languages into the learning environment, promoting linguistic inclusivity and ensuring that children's cultural and linguistic identities are valued.

A clear example of this can be seen in the bilingual learning experience, which demonstrates these policy principles in practice. The activity reflects policy intentions by embedding linguistic diversity into everyday learning, fostering communication,

cultural awareness, and a sense of belonging. Furthermore, it ensures equity by acknowledging and supporting the diverse identities of all learners, aligning with the broader goals of Welsh policies to equip children with the skills needed to thrive in a diverse world (Welsh Government, 2022).

Fostering Divergent Thinking in the Early Years

Creativity is a complex cognitive process underpinned by two primary mechanisms: **divergent thinking**, which facilitates the generation of multiple ideas, and **convergent thinking**, which enables the refinement and selection of optimal solutions (Zheng, Denervaud and Durrleman, 2023). Bilingualism has been positively correlated with **enhanced divergent thinking**, a cognitive ability that fosters innovation and flexible problem-solving (Arefi and Jalali, 2016).

Bilingualism enhances cognitive adaptability, allowing bilingual children to navigate challenges from diverse perspectives. Guilford's model identifies **fluency, flexibility, originality, and elaboration** as the four core components of divergent thinking (Arefi and Jalali, 2016). These characteristics are evident in bilingual children's ability to **generate multiple solutions**, seamlessly **switch between languages**, and integrate diverse cultural influences into creative problem-solving (Martin Storme et al. 2017).

The bilingual birthday celebration activity exemplifies this cognitive process by enhancing fluency. Through listening, repetition, and recall of new vocabulary introduced by the practitioner through singing, children improve word retrieval and verbal expression. Furthermore, the rhythmic and interactive structure of the activity supports language acquisition, providing an intuitive and engaging learning experience (Agostini, Apperly and Krott, 2024).

Despite these benefits, Robinson (2016) argues that, while children naturally exhibit strong divergent thinking abilities, traditional education systems gradually suppress this capacity due to rigid curricular structures. To counteract these limitations, Welsh education policies, such as the Curriculum for Wales (2022), actively integrate play-based and inquiry-led learning. These approaches sustain and enhance bilingual

children's creative capacities by fostering exploratory learning and promoting cognitive flexibility within linguistically rich environments.

Final Considerations:

To conclude, bilingualism in early childhood is associated with a wide range of cognitive, linguistic, and creative benefits, as supported by both theoretical perspectives and empirical research (Tabellion, 2024). The simultaneous management of multiple linguistic systems has been shown to enhance executive function, working memory, and neural connectivity, fostering greater cognitive flexibility, problem-solving skills, and language competence (Hofman, 2020; Goksan et al. 2020).

Rather than indicating confusion, phenomena such as code-mixing reflect metalinguistic awareness and strategic communication (Walla, 2017). Play-based, immersive activities, such as the bilingual birthday celebration, demonstrate how inclusive classroom practices can support language development, social integration, and cultural identity (Department for Education, 2021).

These approaches are strongly aligned with contemporary Welsh educational frameworks, including the *Curriculum for Wales* (2022), the *ESOL Policy for Wales* (2019), and the *Global Futures* strategy (2022), all of which promote the integration of home and community languages in early years provision. Moving forward, fostering linguistic diversity within inclusive educational practice requires sustained investment and equitable access to language support, both of which are pivotal to the long-term success of bilingual initiatives (Smidt, 2016).

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