

Factors Affecting Bilingual Learning

Yanxi Zhou^{1,a,*}

¹Graduate School of Education, University of Pennsylvania, Philadelphia, 19104, U.S.

a. zyanxi@upenn.edu

**corresponding author*

Abstract: This article thoroughly explores the advantages of bilingual education through a literature review of previous research results, paying particular attention to motivation, self-identity, ethnic identity, and learner background. The examination of motivation is comprehensive, revealing its dynamic nature and combining motivation and self-efficacy to demonstrate its profound impact on academic outcomes. Furthermore, the article highlights the critical role of self-identity and national identity, illustrating the association between cultural awareness and language acquisition. In this section, the article finds that cultivating early national identity positively impacts children's literary development. Also, the use of language plays a crucial role in self-identity, which infers that language shapes people. In addition, this study explores the impact of native language and residence time on bilingual proficiency through learner background. In this section, the study also considers the age factor and the input and quality of English. Finally, it emphasizes the complexity of bilingual education and the inseparable relationship of various influencing factors and then provides practical suggestions for educators and future research.

Keywords: Bilingual education, motivation, self identity, cultural awareness, learner background

1. Introduction

According to much literature and research, bilingual learning has numerous advantages. Bialystok and Ozfidan highlight its positive impact on academic performance. Especially for students whose native language is not English, it improves performance and content understanding in English and other subjects [1,2]. Furthermore, Ozfidan highlights that bilingual education promotes equality and diversity in culture and opportunity. It can also protect the language and cultural rights of minority groups and make them feel more comfortable [2].

Additionally, the benefits of bilingual education extend to all ages. Bialystok highlights its positive impact on children, increasing their proficiency in two languages, developing cognitive flexibility, and improving executive functioning skills [1]. It further helps cognitive development, improving concentration, memory, and problem-solving skills. For adolescents, Ozfidan believes that bilingual education can promote building stronger relationships between different ethnic groups, thereby mitigating conflicts and promoting better integration into the community [2].

The following sections of this article present a comprehensive exploration of the positive impacts of bilingual education, drawing from multiple literature reviews. The focus will center on three key

aspects: motivation, self-identity and national identity, and learner background, to explain the multifaceted benefits of bilingual education.

2. Impact factors

2.1. The Role of Motivation in Bilingual Learning

Research conducted by Zareian and Jodaei, and Sahan et al. demonstrates the importance of motivation in multilingual learning. Zareian and Jodaei believe that motivation, whether intrinsic or extrinsic, is a basic driving force that drives learners to actively participate in educational activities and strive to achieve certain academic goals [3]. While recognizing that motivation is essential to the learning process, motivation is also dynamic and multifaceted. Specifically, motivation can change over time or be influenced by many internal and external factors as well as the specific context of language acquisition. In another study, Sahan et al. define motivation as the potential influence on students' behavior and effort [4]. Thus, the consistent understanding of motivation across different studies emphasizes its universal significance and confirms its key role in the learning process. Additionally, both studies reveal the significant impact of motivation on the trajectory of learning, going beyond the acquisition of knowledge to encompass students' holistic learning experiences and personal growth. Zareian and Jodaei highlighted the significance of motivation in the language acquisition process, emphasizing its dual role in shaping learners' academic achievements and facilitating the process of language assimilation [3]. The aforementioned study conducted by Sahan provided additional evidence to support the notion that there is a strong relationship between students' self-efficacy, motivation, and their capacity to address academic language difficulties efficiently, hence enhancing the learning process.

Zareian and Jodaei conduct a comprehensive study that synthesizes multiple motivation theories to explore the complex motivational factors involved in second language acquisition [3]. Significantly, within the realm of these theories, integrative motivation and instrumental motivation place emphasis on the influence of learners' goals to integrate into the target language community and the practical advantages obtained from language acquisition on their motivation. Moreover, the analysis conducted by the researchers on goal theory emphasizes the beneficial effects of establishing explicit and attainable goals in fostering motivation for learning. This underscores the variations that exist among learners with regard to their approaches to setting goals and their emphasis on mastering. The act of setting explicit and precise objectives can efficiently guide an individual's attention and endeavors, therefore enhancing their persistence, engagement in tasks, and eventually, the results they achieve. The categorization of goal orientation theory into two main classifications, specifically performance orientation and mastery orientation, illustrates the various priorities exhibited by individuals. On the other hand, the neurobiological perspective on second language motivation aims to clarify the intricate connection between motivational elements and the neurological processes that underlie them. The language acquisition process is highlighted for its emphasis on the distinct brain responses and individual variations exhibited by learners. Concurrently, the process-oriented approach highlights the dynamic and progressive nature of motivation, emphasizing the importance of motivational dynamics that undergo changes and developments over a period of time. Ultimately, the examination of attribution theory digs into the complexities surrounding how individuals ascribe success and failure in the realm of language acquisition to a range of internal and external factors, including but not limited to ability, effort, task difficulty, and even chance. The notion being discussed is strongly connected to self-efficacy, which pertains to an individual's belief in their ability to effectively perform certain tasks and get desired results [3]. This highlights the significant significance of one's self-perception in the endeavor of language acquisition goals.

Moreover, their exploration of the self-determination theory underscores the significance of both internal and extrinsic motivation in the language acquisition process. In the broader context of motivation theory, particularly within the framework of self-determination theory, intrinsic and extrinsic motivation assume pivotal roles.

Intrinsic motivation, emanating from internal satisfaction and enjoyment, aligns with an individual's inherent sense of competence and well-being. It specifically involves engaging in an activity or task for the inherent satisfaction, pleasure, or enjoyment derived directly from the activity itself. This form of motivation stems from personal interest or an intrinsic desire to participate in an activity without external incentives or rewards. In the realm of language learning, intrinsic motivation manifests as a genuine passion for the language, curiosity about the culture, or pleasure derived from the learning process.

Conversely, extrinsic motivation entails behaviors propelled by external incentives, such as rewards or the avoidance of punishment. In the context of language acquisition, extrinsic motivation may be fueled by factors like the pursuit of high grades, the aspiration for a promotion, or the achievement of specific academic or career-related objectives.

In summary, the relationship between self-concept, motivation, and second language acquisition is multifaceted. The attributional patterns of individuals, influenced by internal beliefs and external factors, contribute to the development of self-efficacy, thereby shaping their motivation for language learning.

In their study, Sahan et al. seek to investigate the influence of self-efficacy and motivation on the bilingual learning process in English-medium instruction (EMI) settings [4]. The research highlights the crucial role of motivation, emphasizing its inseparable connection with self-efficacy in shaping learners' language acquisition. The study underscores that learners with strong self-efficacy exhibit resilience, effective learning practices, and smoother learning experiences. Motivated learners not only sustain high self-efficacy but also navigate challenges adeptly. Motivation emerges as a key factor influencing self-efficacy development and shaping bilingual learning. Conversely, students with low self-efficacy face dissatisfaction and uneasiness, emphasizing the need to understand and foster motivation. Motivation becomes a promoter for overcoming difficulties, enhancing self-efficacy, and steering bilingual learning towards favorable outcomes.

Furthermore, within the context of this study, motivation pertains to the underlying factors that impact the actions, effort, and involvement of students in English as a Medium of Instruction (EMI) environments. The study focuses on three aspects of motivation, which are L2 self-concept (referred to as MOT1) (MOT refers to motivation), subject self-concept (referred to as MOT3), and motivated conduct (referred to as MOT2) [4]. MOT 1 pertains to the beliefs and perceptions held by students to their language learning capacities, specifically in the context of employing L2. This pertains to individuals' level of confidence in their abilities to use the English language and their general self-assessment of their competency in English. The construct of MOT3 refers to how students perceive their abilities and confidence in understanding and actively engaging with academic subjects taught in EMI, which means their perception of how well they understand a specific academic area expressed in English. Finally, MOT2 refers to the behaviors and efforts demonstrated by students to achieve academic goals in an EMI environment, such as active participation in English-taught courses, desire to acquire knowledge, completion of course assignments, and overall commitment to learning materials and activities.

Research finds that MOT1 and MOT3 significantly predict how easily students acquire knowledge in an EMI environment [4]. Specifically, MOT1 indicates that students' assessment of their language ability and confidence in using English significantly impacts their performance in EMI courses. While the study does not reveal a statistically significant correlation between MOT2 and academic difficulties, qualitative data offer valuable insights into how educators assess motivation and self-

efficacy, influencing students' effort and engagement in EMI. Educators observe significant correlations between students' motivation, EMI self-efficacy, and levels of second language usage [4]. This implies that students reluctant to use English in educational settings may lack the motivation and self-perceived effectiveness of using English as a medium of instruction, potentially leading to more difficulties in the learning process. Educators believe students' motivation is crucial to their academic achievements in EMI courses. Researchers also acknowledge that students may encounter challenges when lacking interest in academic subjects, mainly if they express unwillingness to learn English [4]. In such cases, teachers often use students' native languages to enhance active classroom participation.

Alforidi, Pradeepa and Antony, and Li further confirm the importance of motivation in the context of multilingual learning in their research findings [5-7]. In particular, the research by Pradeepa and Antony focuses on the significant impact of motivation on the bilingual acquisition process [6]. The research examines multiple aspects of students' experiences, including personal background, language history, and family environment. Research finds that these factors strongly impact students' learning attitudes, motivation, and willingness to participate actively in language learning. The findings indicate a significant positive relationship between student experiences in bilingual education and dropout rates. This means that good learning experiences and high motivation can increase students' engagement in bilingual education and academic performance, thereby reducing the likelihood of dropping out.

Furthermore, when examining aspects related to schooling, research highlights the critical role of teacher training and teaching quality in shaping students' willingness to learn, which and motivation are inextricably linked [6]. In the field of bilingual education, teachers play a vital role. The effectiveness of their teaching, teaching methods, and the support they provide greatly impact students' motivation and academic performance. This study particularly emphasizes the critical impact of teaching methods on student dropout rates, which is closely related to students' motivation levels to participate in learning [6]. Therefore, again, it highlights the vital role of stimulating students' learning motivation in improving academic performance and reducing dropout rates in a bilingual learning environment.

2.2. The Role of Self-identity and National Identity in Bilingual Learning

Li emphasizes the close connection between a heightened consciousness of one's national identity and the augmentation of motivation in bilingual education [7]. This prompts individuals to actively participate in the acquisition of heritage languages, ultimately leading to an enhancement in their linguistic competence.

Li emphasizes the substantial impact of ethnic identification on multilingual acquisition [7]. This study observes and studies two Chinese families, Zin and Zhang. The findings demonstrate that children who develop an awareness of their native culture have a strong positive impact on their sense of national identity. Zin's family background proves this point well. His parents actively promote his participation in his Chinese relatives' daily activities, encourage him to experience traditional Chinese celebrations, and teach him knowledge of Chinese culinary traditions. Because of these, the implementation of family traditions and educational strategies play an essential role in cultivating Zin's pride and connection with Chinese culture. In turn, it enhances his enthusiasm and interest in learning Chinese knowledge and improves his excellent listening and speaking skills, forming a virtuous cycle.

Significant differences exist in the education situation of the Zhang and Zin families. Although the Zhang family provides much academic input in the native language, Zhang has limited daily interaction with Chinese cultural experiences, resulting in a lack of belonging and intimacy with his cultural and linguistic heritage. Therefore, Zhang's language acquisition is viewed primarily as an

academic responsibility and obligation rather than an opportunity to preserve cultural heritage. This comparison highlights the importance of cultivating a collective national identity to facilitate heritage language acquisition.

Moreover, research evidence shows that early cultivation of ethnic awareness significantly impacts children's literacy development. Children can develop a deeper understanding and acceptance of their cultural roots by actively participating in and exploring local cultural history. Therefore, this can enhance their motivation and interest in learning the language and thereby further improve their literacy skills. On the other hand, a lack of developing ethnic awareness may reduce children's propensity to acquire language skills and lead to differences in literacy. Therefore, for minority families, it is crucial to cultivate national consciousness through family education. This approach will effectively promote the overall development of language fluency and cultural competence in future generations.

Similarly, Hammer points out the importance of self-identity in multilingual learning in her research [8]. There may be differences in an individual's sense of self and familiarity with their "true self" when using a second language. Conceptually, one's sense of identity is closely related to the "true self," which is affected by various factors [8]. Among these, the impact of acculturation on individuals' sense of self deserves particular attention, especially for those who integrate into social networks dominated by a second language. This integration helps to enhance an individual's sense of reality when using a second language.

Furthermore, the linguistic environment in social networks plays a vital role in shaping an individual's self-identity. Individuals belonging to a social group primarily using a second language often feel more comfortable communicating in a second language. Conversely, people with a stronger preference for their first language may feel uneasy or inauthentic when using their second language. Overall, various factors, including an individual's level of acculturation when using a second language, their awareness of their true self, and the interaction of the language environment in the social network, jointly shape an individual's self-identity experience in a multilingual environment, highlighting the critical role of self-identity in second language learning.

In addition, research introduces the "language of attachment" concept, emphasizing the emotional bond formed by an individual and a specific language [8]. This concept is closely related to self-identity and the "true self" [8]. Language of attachment goes beyond mere language use; it encompasses a deep emotional connection between an individual and a second language.

In the context of this study, people who develop a strong emotional attachment to their second language in a new cultural environment are more likely to experience a heightened sense of identification and emotional connection when using that language. This emotional connection helps create a sense of authenticity and comfort when using a second language. Therefore, language of attachment becomes a key factor affecting personal attitudes and language use and profoundly shapes their self-perception and sense of identity in an unfamiliar cultural environment.

Specifically, the language of attachment involves not only language proficiency but also personal emotional investment in the language. When people develop an emotional connection with a second language, the language becomes part of their identity. Emotional bonds formed through a second language often reflect attachment patterns observed in relationships with significant others around them, which can help create a sense of belonging and comfort in a new environment. Therefore, language of attachment is integral to adapting to a new culture. It is intertwined with an individual's self-identity and affects how an individual perceives and displays his or her true self in a new cultural and linguistic environment. This process highlights the critical role of language in influencing individual experiences of emotion and identity.

Hammer also emphasizes the direct impact of language use on an individual's self-perception and mentions that speaking a second language elicits unique emotional responses [8]. Specifically,

language and different modes of communication largely shape individual expressions of identity. In other words, language facilitates social and cultural interactions among individuals, allowing them to express their cultural background, social status, beliefs, and emotional experiences. At the same time, language use can significantly impact individuals' perceptions of their own identity, especially as they move through different life stages and develop emotional relationships in different language environments. The experiences reported by participants suggest that speaking a second language can elicit unique emotional responses as the second language becomes linked to their more developed, post-migration identity. In the meantime, the primary language maintains its relevance within an individual's brain due to its association with early emotional bonds. As a result, how an individual employs language significantly impacts their life experiences at various points, ultimately molding their sense of self within linguistic exchanges. The intricate and diverse connection between language utilization and personal identity is shaped by individual life events and emotional attachments.

2.3. The Role of Learner's Background in Bilingual Learning

In Yadav's exploration of teaching English as a foreign language, particularly in classroom settings, the significance of L1 emerges as a pivotal aspect [9].

In the initial stages, employing the mother tongue judiciously proves beneficial for beginners, facilitating their grasp of fundamental language knowledge. Acting as a bridge, the native language assists students in comprehending basic concepts and structures of the target language. As learning progresses, there is a natural transition towards the dominance of the target language. The article implies that once students have established an understanding of basic language knowledge, teaching can gradually reduce reliance on their mother tongue, allowing students to be more exposed to the target language environment. This gradual process helps students gradually become comfortable with and become fluent in the target language.

Furthermore, Yadav asserts that there are instances where using the mother tongue is more efficient, particularly in providing extensive explanations [9]. For example, when introducing a new word like "car," direct translation may expedite comprehension compared to a detailed explanation [9]. This practice proves especially beneficial for beginners, enabling a swift understanding of vocabulary and facilitating connections to target language concepts. This method ensures a smoother adaptation to the target language environment, preventing potential confusion arising from excessive explanations.

In a broader cultural context, the mother tongue assumes a pivotal role in conveying cultural nuances, aiding learners in comprehending and embracing differences between cultures. Incorporating the native language in learning idioms, expressions, and song lyrics not only elucidates linguistic meanings but also facilitates a deeper understanding of cultural elements embedded in the target language. Engaging in discussions and explanations of cultural aspects enables students to acquire the target language holistically, fostering an enhanced appreciation and respect for diverse cultures.

Yough and Fang further elaborate on the multifaceted role of L1 in second language acquisition [10]. Firstly, they highlight its positive impact on vocabulary acquisition. Employing the native language prior to exposure to specific passages equips students with relevant vocabulary, establishing a foundation for a more profound understanding of English text. This approach acts as a form of preliminary preparation, instilling confidence in students when confronted with new English texts.

Secondly, L1 assumes a crucial role in reading comprehension, involving various levels of processing, such as surface features and deep understanding [10]. Particularly in processing deep information, students need to convert sentences into propositions and connect these propositions to their existing knowledge in long-term memory. Utilizing the native language to discuss the meaning

of abstract or challenging texts enhances students' comprehension and fosters an awareness of the text's overall meaning.

In addition, the article shows that cooperation between students through the use of their native language can be an effective means of developing self-regulation skills. Students learn to effectively adjust their learning strategies through cooperation, thereby better adapting to the learning environment, solving problems, and improving learning results. This highlights the interrelationship between self-regulation and cooperation that together promote positive student development in second language learning.

Lastly, the use of the L1 is highlighted in task assignment and activity interpretation. Clear and detailed explanations in the mother tongue aid students in better understanding task methods, transcending mere comprehension of the task's purpose [10]. This approach directs students' focus toward specific learning tasks, contributing to a more comprehensive grasp of English.

In conclusion, the article asserts that the mother tongue serves as a potent cognitive tool in second language learning, aiding students in navigating various challenges [10]. Therefore, a judicious, systematic, and strategic use of the mother tongue can enhance students' familiarity with the target language, propelling them toward better outcomes in English learning.

The primary focus of the study by Flege and Liu is the influence of the length of residence (LOR) in the United States on L2 learning among Chinese adult learners. The article underscores the significant impact of learners' backgrounds on bilingual learning and the acquisition of a second language by adults [11]. The role of LOR is highlighted in both student and non-student groups [11]. For students, an increase in their residence time in the United States correlates with notable improvements in language abilities, encompassing aspects such as speech perception and grammatical knowledge. In contrast, non-students may experience less evident enhancements in English proficiency, particularly in terms of grammar, suggesting disparities in learning environments. Students benefit from greater exposure to English input and instruction in academic settings, while non-students may lack such systematic language input and instruction. Prolonged exposure to an English-rich environment is posited as instrumental in enhancing students' language skills, potentially influenced by substantial English input from native English-speaking teachers and classmates.

In a related vein, Alforidi explores the impact of the quantity and quality of language input on bilingual acquisition, emphasizing the importance of these factors in the home environment for children [5]. The article contends that if a less commonly spoken language is used infrequently in the home, children may face challenges in achieving fluency in that language due to inadequate practice. Lambert terms this phenomenon "subtractive bilingualism" and highlights the risk of language loss when children use one language at school and another at home. This aligns with the language input model echoed by Flege and Liu, emphasizing the crucial role of quantity and quality of language input for both child and adult bilingual learners.

Examining the impact of adults' second language acquisition experience on language ability, research indicates that in input-rich contexts, adults can witness improvements in language performance over time, contrary to some earlier conclusions. This underscores the importance of the quality of the input environment relative to merely relying on the length of LOR [11]. Flege & Liu suggest that adults in an English-rich environment receive significant English input, positively impacting language abilities such as speech perception [11]. The article also mentions that for evaluating the critical period hypothesis about second language learning, careful consideration needs to be given to participant selection and other factors that may be related to age. While age factors are not explicitly addressed in Flege and Liu's study, Alforidi discusses the relationship between age and language proficiency [5]. Several studies, including Lennenberg's critical period hypothesis, posit that early childhood offers greater language learning ability, while Birdsong argues against age being

a hindrance to acquiring a new language, presenting examples of individuals becoming fluent in French after the age of 15 [5].

In conclusion, these findings underscore the intricate nature of language acquisition, with the learner's background, including LOR, student/non-student status, the quality of the input environment, and age factors all contributing significantly to shaping an individual's language proficiency [11]. The dynamic interplay of these elements highlights the nuanced and multifaceted aspects of language acquisition.

3. Conclusion

Having explored the manifold advantages of bilingual learning, this study asserts the overarching importance of this educational approach across all age groups, with a particular emphasis on its significance for children. Bilingual learning not only yields plenty of benefits, including heightened academic performance, enhanced cognitive development, and increased cultural awareness, but it also facilitates accelerated progress within the learning trajectory.

Upon reflection on the primary content of the article, the positive impact of bilingual learning can be succinctly categorized into three key dimensions: motivation, self-identity, and national identity, and the learner's background.

First, motivation emerges as a pivotal factor in the realm of bilingual learning. The research underscores the integral connection between students' positive motivation, academic accomplishments, and language assimilation. Therefore, fostering an environment that encourages students to delineate clear short- and long-term goals proves to be an effective strategy in motivating their learning journey.

Additionally, self-identity and ethnic identity are fundamental in shaping an individual's bilingual proficiency. It is advisable for students to actively introspect and explore their cultural identity during their academic pursuits, thereby fortifying their sense of self and national identity. Therefore, educators can employ culturally sustaining teaching methodologies that underscore students' linguistic, cultural, and ethnic identities, thereby fostering a more positive and enriching learning experience.

Lastly, the learner's background, particularly their native language and the learning environment, exerts a profound influence on the outcomes of bilingual learning. Comprehensive support for students should be fortified at the familial, scholastic, and societal levels. Propagating the adoption of culturally sustaining teaching methods within schools and reinforcing students' connection to their mother tongue and culture are poised to enhance the efficacy of bilingual learning.

In conclusion, to propel the advancement of bilingual learning, collaborative efforts among students, families, and educational institutions are recommended, focusing on individualized support and targeted educational initiatives. Future research can be focus on specific teaching methodologies, learning environments, and cultural considerations to formulate more precise and pragmatic educational strategies.

References

- [1] Bialystok, E. (2016). *Bilingual education for young children: Review of the effects and consequences*. *International Journal of Bilingual Education and Bilingualism*, 21(6), 666–679. <https://doi.org/10.1080/13670050.2016.1203859>
- [2] Özfidan, B. (2021). *Academic aspects of bilingual education: Importance of language learning*. *Proceedings of the 2021 AERA Annual Meeting*. <https://doi.org/10.3102/1678489>
- [3] Zareian, G., & Jodaei, H. (2015). *Motivation in Second Language Acquisition: A State of the Art Article*. *Online Submission*, 5(2), 295-308.
- [4] Sahan, K., Kamaşak, R., & Rose, H. (2023). *The interplay of motivated behaviour, self-concept, self-efficacy, and language use on ease of academic study in English Medium Education*. *System*, 114, 103016. <https://doi.org/10.1016/j.system.2023.103016>

- [5] AlForidi, K. I. (2016). *The main factors could affect bilingualism*. *Journal of Modern Education Review*, 6(3), 191–194. [https://doi.org/10.15341/jmer\(2155-7993\)/03.06.2016/006](https://doi.org/10.15341/jmer(2155-7993)/03.06.2016/006)
- [6] Pradeepa, K., & Antony, S. (2021). *Factors affecting to bilingual education: a special reference to trincomalee division*. *International Research Journal of Modernization in Engineering Technology and Science*, 3(03), 647-655.
- [7] Li, S. (2013). *Investigation of Parents' Involvement in Minority Language Maintenance: Case Study of Chinese Heritage Learners' Parents* (Doctoral dissertation, University of Toledo).
- [8] Hammer, K. (2016). *Bilingual bonds*. *International Journal of Language and Culture*, 3(2), 253–279. <https://doi.org/10.1075/ijolc.3.2.05ham>
- [9] Yadav, M. K. (2014). *Role of mother tongue in second language learning*. *International Journal of research*, 1(11), 572-582.
- [10] Yough, M. S., & Fang, M. (2010). *Keeping Native Languages in ESL Class: Accounting for the Role Beliefs Play Toward Mastery*. *Mid-Western Educational Researcher*, 23(2).
- [11] Flege, J. E., & Liu, S. (2001). *The effect of experience on adults' acquisition of a second language*. *Studies in Second Language Acquisition*, 23(4), 527–552. <https://doi.org/10.1017/s0272263101004041>