Effects of Bilingual Education on Children

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Abstract

Bilingual education is used in countries around the world to help children develop language skills in a language besides their native one and it has profound effects on the brain and a child’s development. A bilingual education is generally composed of a non-English speaking student learning core subjects in their native language while other courses are taught in English to encourage development of the two languages both foreign and native, yet this is not limited to just English as other languages can be substituted for English. There is not a profound emphasis on bilingual education in America with legislation passed in the past to limit such an education style in the late 1900s as studies done at the time showed negative results of dual language education; however, these ideas were proven false in the early 2000s as the previously found results were based upon socially disadvantaged children. Despite the mixed political debates surrounding bilingual education, many studies have found that bilingualism actually has many benefits and positively affects a child’s growth and development.

 Developed in the 1960s, bilingual education has rapidly grown into a very fiercely debated topic among educators today on whether more schools should shift to a more bilingual curriculum or remain with the current standard English classroom (Goldenberg and Wagner, 2015). Bilingual education is generally where a non-English speaking student is taught core subjects in their native language while other courses are taught strictly in English to encourage development of both their native language and their secondary language of English; however, the practice is not limited solely to teaching English as it can be substituted with any language outside of a child’s native one. The practice of bilingual education is not widely practiced in the United States, but it is used abroad in other nations, such as China, Sweden, and the Netherlands (Krashen, n.d.). Although the debate of whether bilingual education should be implemented in the U.S. continues, there is significant evidence that it does affect the development of a child physically and cognitively, especially when looked at from the contextual and cognitive perspectives.

 Back in the 1990s there was a lot of research done to see how a child developed in a bilingual school setting and to determine the usefulness of bilingual education and whether it would benefit a child. The conclusion reached by the end of the 1990s was that bilingual education was a hindrance to children as it was found that bilingual children underperformed on assessments compared to monolingual children and California passed Proposition 227 in 1998 which limited the time English-language learners spent in bilingual class settings (Kamenetz, 2016). However, it has been found that the research done in the 1990s was flawed with it focusing on children who were socially disadvantaged, and that same research was proven false with new findings that found many benefits from bilingual schooling (Kamenetz, 2016). California actually ended up reversing its decision on bilingual education with Proposition 58 in 2016, which expanded bilingual education for its many English-learning citizens.

 Opposition to bilingual education also results from many people believing that the only reason why the government wants to expand the dual language education system is to expand upon their immigration policy agenda. It is a belief held by many that the desire to help kids learn and grow should come first in any act or legislation dealing with education before any idea of trying to mix legislation of education with other political agendas as in the end it slights the future of students. In addition, if bilingual education were to become more widespread it would require more teachers to become proficient in a second language and since most teachers do not study outside of their chosen subject field, it would lessen the number of teachers meeting the requirement of multiple language proficiency thus a shortage of teachers for bilingual schools (Readers 2010).

Setting aside the mixed politics surrounding the matter of enacting bilingual education, there is evidence that shows bilingual education is a benefit to the growth and development of children. What is impressive of speaking and understanding two or more languages is not being able to switch from one language to another a moments notice, but instead the ability to pay attention (Kamenetz, 2016). There is evidence showing that bilingual students are able to quickly switch to and adapt to a new task quickly and efficiently, more so than a monolingual student; however, it is unknown whether this expansion of attention is the same with children who start learning two languages from birth versus those who start later in life. Even though it is unknown whether attention expands at the same rate between different ages of starting a new language, a recent study done at Harvard shows that no matter when the second language was brought in that the same physical changes in the brain occurred (Kamenetz, 2016).

Evidence also shows that bilingualism leads to heightened metalinguistic skills in children, which is essentially the ability to analyze different aspects of language, such as syntax, sounds, and words, and the ability to talk about these differences in properties to other people (Grosjean, 2011). The brain of someone proficient in two languages is more actively aware of sematic anomalies as the brain has become aware of different words or sounds and their meanings according to different languages in the cognitive process of retrieval. These skills of analyzing aspects of language are only expanded upon as a child grows to the point where it becomes a whole-brain engagement, meaning it involves all different areas of the brain and increases brain activity.

 Bilingualism is also shown to physically alter the brain and even what parts of the brain handle certain functions and this alteration in structure is found to perfectly safe without any risk in a child’s growth and development over time (Huerta, 2015). There are two main areas of the brain that are responsible for speech which are the left front of the brain, used in speech production, and the rear section of the brain, used in processing meaning, and it is found that there is a difference in which is used by a monolingual child and a bilingual child. A monolingual child’s brain and a bilingual child’s brain process speech in the same way that the left front and rear of the brain are originally used with the bilingual child using these regions the same with both languages; however, if the acquisition of the second language is not immediate and is instead delayed for a few years into later childhood it is shown that this late procurement results in the use of the left frontal area significantly more for their second language (Huerta, 2015). This difference results from when language skills are developing in a child the brain intertwines syntax and sounds in the same region, which means that once this occurs any new language skill developed later than early childhood will have to occur elsewhere in the brain (Huerta, 2015).

 Due to the physical shift in the layout of the brain because of bilingualism, there are actually medical benefits that result from these shifts that help provide protection from diseases later on in life. Since the brain’s layout slightly shifts during the time acquiring a second language there is a protective effect against age-related dementia due to these small shifts in brain function and structure (Kamenetz, 2016). Also, bilingualism helps protect against cognitive decline in the later stages of life as although the brain is in a slightly damaged state, known better as the medical condition brain atrophy, it is still able to operate at a faster rate due to the different connections with different areas of the brain compared to the brain of a person who is monolingual.

 Bilingualism in children leads to them having a better sense of conflict management, meaning they are able to resolve conflicts with information, not meaning that they can solve arguments between people any better than anybody else. A test was conducted in which the name of a color was written on a card and the person had to say what was the name of the color printed on the card was, but the color of the font would be changed to one that was not written on the card, and it was seen that those who were bilingual could easily switch between looking at the color of the font and the actual name of the color on the card (Huerta, 2015). This shows that the brain of a bilingual individual is very nimble and can quickly switch from different tasks compared to that of a monolingual individual. As a result of this nimbleness of the brain and ability to solve ambiguities in information, bilingual individuals have a decrease in the risk of getting dementia and Alzheimer’s over time (Huerta, 2015).

 Another benefit that results from the small physical shifts of the brain stemming from bilingualism is the ability to adapt and be flexible in response to a changing environment (Huerta, 2015). The bilingual experience improves sensory and cognitive processing which allows a person to better analyze different information presented in an environment especially in deciphering small changes and examining little details. As bilingual individuals have to learn how to separate their two different languages and focus on what signals they are receiving from their environment to determine the specific response they need to give, which trains the brain in looking a small details and changes in the environment. A study was done with infants that were seven months old where a tinkling sound was presented and a puppet appeared at one side of a screen, but halfway through the experiment the puppet began appearing at the opposite side of the screen and only the bilingual infants were able to detect the change and find the new location of the puppet (Huerta, 2015). This study helps to prove that bilingual individuals possess a type of flexibility to adapt to a slight change in the environment quicker than monolingual individuals.

 In bilingual class settings focused upon English it has been found that students who are learning English as their secondary language outperform students with English as their native language. A study done by Jennifer Steele found that dual-language learners ended up outperforming their classmates in English reading skills by a whole year’s worth of learning by the end of middle school and some of these students were even foreign language dominant, meaning they had no prior background with English before the classroom; however, this outperformance was not found in other core subjects outside of English, like math or science (Kamenetz, 2016). The reason for these profound findings are likely relates to the metalinguistic abilities found with bilingual students as they are very adept at decoding words and sentences. These findings show that there is not necessarily a delay in learning due to bilingual education when it comes to communication in English, but it is hard to draw conclusions outside of English and language-oriented classes. In addition, this shows that a bilingual education does not hinder an individual as it instead promotes proficiency of both languages that are trying to be learned (Cummins, 1980).

 Bilingual classrooms also present an opportunity for students to grow socially and make connections with their fellow students who might have recently immigrated to the United States or are just non-native English speakers (Kamenetz, 2016). Classrooms that are bilingual encourage the mixing of races and inspires cohesion and unity amongst students with very different ethic and socioeconomic backgrounds (Kamenetz, 2016). Also, it helps kids to be proud of their native language even though it might not be the standard English language that many view as the global language as they learn that their language is heard and has meaning compared to a solely English classroom. A bilingual classroom really focuses on integration of cultures as students have the chance to learn about a culture completely different than the one they have always known when talking to students who are not originally from the United States and non-native American students can really feel at home in a classroom that accepts their native language, teaches them a new one, and encourages them to embrace their cultural differences (Chin, 2015).

 Speaking a second language can help give a person a more expansive look at the world and the events that occur within different countries as differences in languages and culture give a different look on events (Chin, 2015). This global perspective is derived from how languages each work differently, like how some languages place the subject of the sentence at the beginning of the sentence while other languages place the subject at the end of the sentence, so a person speaking German’s manner of speech will differ from that of a person who is speaking Spanish. A study was done between people who spoke German and English where researchers got the individuals to watch a series of videos of people walking, running, biking, and driving and at the conclusion of the videos the subjects had to determine which videos had a goal and which were ambiguous in meaning (Huerta, 2015). The study found that those who spoke German classified videos oppositely of those who spoke English, which shows that people have different outlooks on situations depending on their culture and what values were emphasized in their country. Bilingual individuals are able to look at a situation and switch their perspective depending on the language they are focusing on at the time the event occurs or when someone asks them about their view on a certain event that recently occurred. Also, bilingual speakers are able to offer people two different perspectives on current, and past, events and can essentially offer two different solutions to a given problem due to their two contrasting language mentalities.

 Despite all these positive benefits for students and development of the brain, bilingual education suffers in the case of a lack of resources available to enact such a diverse and time-consuming education system in many countries around the world today (Chin, 2015). Since there are so many languages in the world curriculum would need to be developed for many of the prominent languages in the world, like English, Spanish, and Chinese, but it would also have to be developed for other smaller lesser known languages as cultures might feel slighted to not have their language represented in a diverse education system. In addition to the time-consuming process of creating new lessons and curriculum for teachers to use, the amount of money it would take to implement these bilingual courses and schools would costs hundreds of thousands of dollars that current education funding from the government lacks (Chin, 2015). Bilingual education has many benefits for children, but in order for it to be used and implemented would costs lots of money that the government does not have readily available, not to mention it would require some legislation to be passed to ensure that bilingual education is equal for native and non-native languages.

 Bilingual education is a topic that is widely debated in the United States as many researchers push for more bilingual education within schools as there are so many benefits to a dual language education; however, many resist this persistence to change as people worry that there would be a shortage of teachers due to not meeting the extra language requirement and the possibility that the extra language might be emphasized more than their child’s native language of English. Despite all of the political controversy surrounding bilingual education it is proven that there are significant health benefits to a dual language system, like a decreased risk of Alzheimer’s and dementia, and even cultural benefits as a person can look at current events with a global perspective and understand how different cultures view the same issue. Cognitive functions of the brain are even improved upon as understanding two languages shifts the roles of certain parts of the brain and connects others to comprehend two languages and focus on small details and signals in the environment to determine the correct response. Potentially in the future there could be an expansion of bilingual education within the United States as more research is conducted to confirm current positive and beneficial findings, and as the U.S. continues to grow in diversity.

I have neither given nor received help on this work, nor am I aware of any infraction of the Honor Code.

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