# Bilingual Education: Features \& Advantages 

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#### Abstract

Bilingual Education is teaching an academic subject in two languages, i.e. a mother language (first language L1) and a second language (L2), with various amounts in an instructed program models. The early viewpoint about the brain tends to assert that learning an $\mathbf{L} 2$ negatively affects the L1 by dismissing it outside the brain, and it emphasizes that the idea of bilingualism creates a problem in the teaching process. The late researches on bilingualism disapprove the conclusions of the early researches come with and make it clear that persons who speak two languages (bilinguals) have cognitive merits much more than those who speak just one language (monolinguals). As for bilingual education in recent times, there are still contradictory opinions. Some believe that learning the first language (L1) will not hurt the second one (English) and that new knowledge learned in L1 will gradually transfer to the second language, English. On the other side, some maintain that developing the L1 will essentially affect the learners' progress in English learning if they don't get full English immersion. Moreover, bilingualism cannot obtain easily and that is all. To keep high-level bilingualism, learner of two languages (the bilingual person) needs to use both languages constantly and with great effort. Learning a foreign language leads to learning a different culture that widens understanding and develops humanity. And the ability to use the second language and the second culture is considered a means to achieve creative capabilities.


Index Terms-bilingual, education, second language, learning, foreign language, bilingualism, cognitive merits

## I. Introduction

"One brain, two languages, many advantages," (antonella@ling.ed.ac.uk). Bilingual Education is to use a second or foreign language in school for teaching content subjects, (Richards \& Schmidt, 2002 cited in Wanwei, 2010 re-quoted from Sheng Deren, 2003, p.113).

Bilingual Education includes "teaching academic content in two languages, in a native and secondary language with varying amounts of each language used with the program model." (Wikipedia, 2011) A foreign or second language is being used in a school, as an example, for the teaching of content subjects (Richards \& Schmidt, 2010, p.54).

The dual culture, as defined by the free encyclopedia, contains academic subjects taught in two languages, the native (mother) tongue, and another language, with various quantities from each language used simultaneously with a specified program.

We will mention the different types of patterns of bilingual teaching after presenting the past and the present viewpoints concerning learning another language and how the negative attitude toward learning a foreign language changed and tended to be replaced by a positive one (ibid.).

According to Prof. Wu Youfu's opinion (Wanwei, 2010 re-quoted from Sheng Deren, 2003, p.85), the main purpose of bilingual teaching is to enable learners to use foreign thinking and to speak English without interpretation.

Gao Yihong (2001 cited in Wanwei, 2010) says that "language learning is a lifelong and lasting process with both intelligence advancement and personality growth," and urges learners to be in continuous interaction with them and with the world.

To show the features and advantages of bilingual education, the research will deal with the following points:

- The idea which was, and is much less these days, common, is that bilingual teaching is of no use for teaching.
- The early researches in bilingualism emphasized this negative viewpoint referring that the performance of the monolingual learners (speaking one language) is better than that of the bilingual learners (speaking two languages) on the level of the cognitive and educational tasks.
- Later on, it becomes clear that this is not the way the brains work; on the contrary, languages are related to each other through a central processing unit which measures help to learn two or more languages.
- The late researches on bilingualism disapprove the conclusions of the early researches come with and make it clear that persons who speak two languages have cognitive merits much more than those who speak just one language.
As for bilingual education in recent times, there are still contradictory opinions. Some believe that learning the L1 (first language) will not hurt the second language (English learning) and that knowledge newly learned in L1 will transfer over time to their new language, English (Wanwei, 2010).

On the other hand, others believe that developing the L1 will ultimately affect the progress in English learning if students don't get full English immersion (English Week, 1999 re-quoted from Sherine, cited in ibid.)

After concerning with the advantages and the "positive" disadvantages of being bilingual, the researcher will explain briefly the program models of Bilingual Educations and Instruction.

## II. The Early Researches in Bilingualism

There is sometimes, especially among those who speak one language, the concept that bilingualism is of no benefit for learning. This idea is almost based on two concepts, namely "extreme comprehension" and "language confusion", and the belief which is still common that language learning fits only academic learners (www. Language Enhancing the Achievement of Pasifika).

The early researches concerning bilingualism, which appeared between 1920 and 1960 and which seem to support this idea, maintain that generally bilingualism leads to a cognitive disability and a decline in intelligence quotient (IQ), and even a mental handicap (ibid.).

These studies relate to children who know two languages to idioms like "mental confusion" or "language handicap". They generally show that the children till three years of age with a single language do better than their bilingual peers in different tasks of practical or non-practical intelligence (ibid.).

Since 1960 the preceding studies are largely refuted because such studies are based on a wrong conception of what is happening inside the brain. They are given the title of the separate underlying proficiency (SUP) model. Baker and Prys Jones (1998 cited in www. Language Enhancing the Achievement of Pasifika) say that this separate underlying proficiency views the mind as if containing two languages each of which is in a separate house, like two balloons, or two sets of scales. In this model (Balance Theory of ballons), the two language rooms have a limited capacity for storing, and by the effect, we describe the efficiency of a monolingual mind. The previously limited attitude towards the mind leads some people to believe that learning more than one language creates imbalance by displacing the other language from the mind "pushing out the other language" (ibid.) ${ }^{1}$

The brain works in a very different way. Jim Cummins (2004), an eminent bilingual and second language researcher, developed a model that portrays accurately the processes of the mind which are related to the acquisition of a second language. It is called the common underlying proficiency (CUP).

CUP or Iceberg Analogy shows this proficiency as two icebergs floating on the water surface, while they are one iceberg under the surface of the water - which means that these two languages are different visibly and in dialogues, even though they are united inside mind which is the place where the person stores the two (or more) languages he learned. The two languages work through a single central processing system, in which they both contribute to access, and use. (For more information consult Baker, 2006, Pp167-170, and Baker and Burns, 1998 cited in www. Language Enhancing the Achievement of Pasifika)

Baker (2006, ibid.) stresses that the language learners use in the class needs to develop in an efficient way to meet the challenges of advanced perception and comprehension. Moreover, he adds, speaking, listening, reading, and writing in the L1 and L2 (second language) help to develop the total cognitive system.

Nonetheless, if the learner works on developing the L2 without studying the L1 (as the case is always with the common teaching methodologies), this system will not function at its best (ibid.). Moreover, researches have shown that writers would transfer their writing abilities and strategies, whether good or bad from their first language to the second (Fried lander, 1997)

When one or two languages are not functioning perfectly: for example, the undesirable view of learning a foreign language through the original language or the pressure to replace the native language with a foreign one. That will negatively affect cognitive performance and academic achievement (ibid.).

In short, the viewpoint still adopted by so many people about bilingualism in the mind as treating languages being in different boxes in the brain, with a limited relationship with the practical capacity, has been defeated completely by the common underlying proficiency. The CUP model spread and attracted the attention of researchers since the sixties of the twentieth century due to the wide knowledge and studies that deal with the mental system together with the academic studies in bilingualism.

CUP is also supported by facts from life among the contexts of bilingual speakers. That is the majority of people speak two languages, and like all groups of people in the world, they are tested to various levels of academic and intelligence capacities without any effect on their capacity of the second language. This means that the insisting negative attitude towards bilingualism cannot be attributed but to monolingual speakers' lack of knowledge and unfamiliarity with bilingualism.

## III. The Positive Disadvantages of Learning Two Languages

[^0]As many of us share the idea of the superiority of bilingual learning or the belief we are told by the mass media and the scientific studies, the real evidence is unsettled. Dr. Ellen Bialystock, a professor of psychology at York University, has been studying the beginnings and the origin of bilingualism for about forty years. She and her team have found evidence on both sides of the argument of bilingualism. They find that the children speaking more than one language continuously (bilinguals), have relatively little lingual loss or disability but also they possess merits and cognitive gains in comparison with those speaking one language (monolinguals) (Guirgis \& Olson ${ }^{2}$ ).

These studies also find out that bilingual speakers have disadvantages in comparison to monolingual speakers concerning the total number of the lexical vocabulary of the language. That is monolinguals have a vocabulary of their mother language more than that of the bilinguals have in each language they know. Besides, the time (in milliseconds) which the bilingual speaker takes to think of remembering certain words is slightly longer than that of the monolingual speaker takes. It is the same feeling you have when you think of a word and you hardly find it to express what you want. It is the experience almost the bilingual speaker faces. These disadvantages of bilingualism may be attributed to the speakers' attempt to solve the cognitive conflict of choosing a word from the suitable language rather than simply choosing the suitable word as the monolingual speaker does (ibid.).

Despite this, the effort the brain exerts in reconciling this "joint activation" in both languages leads to cognitive advantages the bilinguals gain more than the monolinguals. The bilingual speakers have relatively stronger executive control. This means that they enhance the cognitive capacities in areas (in the mind) which do not harm linguistics, but on the contrary, they have a total domain on cognitive functions. This supporting executive control encourages the bilingual's capability in various fields, such as memory-work, suppressing the negative feelings, the flexibility of comprehending, and doing many tasks. The bilingual speakers, in particular, do better in tasks that are related to specifying problems (tracing conflicts), a proficiency that a person practiced much when he tries to use vocabulary from a dictionary and avoids at the same time using the vocabulary of another language (ibid.).

To understand what happens inside the brain of the bilingual, it is useful to know the neuroplasticity which describes the state of our brains during our life. The relationship among the brain cells becomes stronger or weaker through reorganizing information, learning, or getting older. The neuroplasticity tells us why those who received brain strokes are liable to recover at least partially, and why those who are handicap with one of the senses (weakness of sight for instance) can sometimes develop a stronger capacity of another sense (stronger hearing for example). The center of the executive control of the brain is the main part that is responsible for handling the two languages and solving conflicts. When the children learn two languages and use them, (they adjust and select the use of the vocabulary from the suitable language in a suitable time). They practice and strengthen executive function through the neuroplasticity in their brains (ibid.).

## IV. Advantages of Bilingualism and Acculturation

One of the professors of the Chinese University of Wuhan for sciences and Technology, Wanwei (2010) starts his article with Mahatma Gandhi's famous saying that portrays his country as his own house and the different cultures as the winds blowing through his house:

## I do not want my house to be walled in on all sides and my windows to be stuffed. I want the cultures of all lands to be blown about my house as freely as possible. But I refuse to be blown off my feet by any.

## MahatmaGandhi

(qt from Deena R. Levine et al Beyond Culture 1982)
What is obvious here is that the educated person learns different languages and knows various cultures, but at the same time he doesn't allow these languages and cultures to eradicate his original language or hide his culture by adopting a different language or embracing foreign culture.

The writer (Wanwei, 2010) presents two contrasting theories or two different trends in his country: The first is that learning English is achieved by speaking English in all fields of daily life. This even extends to thinking in English. As for the other trend, it stands against learning English and shows its negative effect on persons which will divert the political orientation and the advancement in the social system towards those who speak this language.

Wanwei (ibid.) criticizes both ideas and refuses them and he presents his ideas about the viewpoints of the writers concerning bilingualism.

Vivian Cook (1999) says that learning a second language makes people think with more flexibility and widens their cognitive capacity and leads to a better attitude towards different cultures. This can almost be noticed among the benefits of learning a different language. Cook adds that learning another language changes people in different ways. The language that remains side by side with the person will have its impact on him/her and it will be affected by him/her.

One of the German philosophers (Goethe) says that the person who knows one language does not know it well unless he knows another language for bilingualism is an important linguistic and intellectual achievement (Cummins, Jim cited in Wanwei, 2010). Another writer says that learning another language makes the person think with two minds instead of

[^1]one. "Being bilingual has become a vital aspect for becoming a successful professional", by making bilingualism the main element in education (Madrinan, 2014, p.51)

Wanwie (2010) adds that it is not a horrible thing to learn another language for people in most of the nations of the world who speak two languages or more (multilingual). Bilingualism contains the theory of acculturation for besides learning another language there is learning another culture. The use of two languages together is not something easy to attain just all of a sudden, but it is a learning process that requires great effort.

One of the linguistics, Kornakov (2000) says that" bilingualism is a vital process with four stages:

1. Establishing bilingualism either naturally or through learning.
2. Stable bilingualism (forming the construction from the knowledge of these two languages).
3. The process of losing bilingualism (losing one of the two languages through forgetting or little use).
4. Lost Bilingualism (total loss of one or two of the language proficiency).

Moreover, bilingualism is classified in terms of proficiency as balanced bilingualism (equal proficiency), dominant bilingualism (one higher than the other), semi-bilingualism (both low efficiency), prestigious bilingualism (both highstatus languages), multilingualism (three or more languages). (http://www.blss.portsmouth.sch.uk/typesofbil.shtml)

As for the classification of bilinguals: 1) elite bilinguals; 2) children from linguistic majorities; 3) children from bilingual families; 4) children from linguistic minorities. (Skutnabb-Kangas, 1984, pp.75-80) quoted from Peter K. Kornakov, 2000)

Here are different classifications of bilinguals depended on various interests of researchers in this field. For example, early and late bilinguals depend on the age of acquisition of bilingualism. Further, subdivide of early bilinguals are divided into simultaneous (two languages acquired simultaneously as L1) and sequential bilinguals (L2 acquired after L1). From a different side, there are elite bilinguals (who choose to study L2) and natural bilinguals (grow up in multilingual communities), that are concerned about the environment of acquisition of bilingualism. (Valdes, Guadalupe cited in Wanwei, 2010).

Additionally, in terms of the time of language acquisition, Ernie Smith (cited in Wanwei, 2010) suggests another classification in terms of proficiency, i.e. active bilingualism or passive bilingualism. When men comprehend two languages but speak only one of them they are considered to be passive bilinguals, but when they both comprehend and speak two languages they are considered to be active bilinguals (Ernie Smith).

Bilingualism cannot obtain easily and that is all. To keep a high level of bilingualism, the Learner of two languages (bilingual) needs to use both languages constantly and with great effort. (Wanwei, 2010).

With the development of bilingualism, biculturalism is certainly to appear. Baetens Beardsmore (1986, p. 23 cited in Wanwei, 2010) says: "The further one progresses in bilingual ability, the more important the bicultural element becomes since higher proficiency increases the expectancy rate of sensitivity towards the cultural implications of language use." Developing the ability in practicing two languages (being bilingual) leads to evaluate the bicultural elements in both languages, i.e. increase of the rate of sensitivity towards the cultural implications of language use.

According to the program of acculturation of Shawman (1978 cited in Wanwei, 2010) there are three ways of exchanging cultures: 1) assimilation, 2) preservation, 3) adaptation.

The degree of each of the above-mentioned ways is decided by the social and the psychological distances between the learner and the 1 L culture. The immersion is achieved when the learner adopts the 2 L and its culture completely. That will result in learning English well but will end in a single language or a single culture, for he will indulge himself with the second culture and will be unable to keep any form of his native culture, language, and identity.

As for the preservation which is the opposite of assimilation for the learner preserves his first language, identity, and his native culture and refuses the second language and every group that is related to it. This will result in a weak level and a poor culture of English. This is also called "fossilization". As for the adaptation, it is moderation in adopting two languages and their various cultures.

Landry (1987, cited in Wanwei, 2010), a linguist, says that complete bilingualism is a phenomenon that is characterized by:

1. A high level of professionalism in the aspects of reasonable academic understanding in both languages.
2. Preserving the knowledge identity of his native language and the positive beliefs towards its culture while believing in a positive view of the other language.
3. An opportunity to learn two languages open-mindedly.

To be specific, Wanwei (2010) says that fruitful bilingualism leads to 1 ) improving language proficiency, 2) better understanding, analysis, and evaluation, 3) intensive sensitivity of other's needs and emotions, 4) making a deep view upon second culture identity, 5) stronger creative ability, and 6) personality growth.

All in all, Gao (cited in ibid.) refers that the control over the second language and the native one in a positive way strengthen each other and results in a deep understanding and an estimation of the national culture.

## V. Types of Bilingual Learning Programs

Programs of bilingual teaching are so many and various but we are going to mention the most prominent types and a brief account of how each of them works www.ncela.gwu.edu.

## A. First: The Programs That Focus on the Development of the Narrative Composition of the Learner in Both Languages

1. Two-way Immersion Program or Two-way Bilingual Program
a. The aim is to improve proficiency and efficiency in the mother language L1 and English L2 (dual-language program).
b. It includes learners who have backgrounds in L1 and L2.
c. The bilingual teaching starts with little percentage and gradually reaches the middle of both languages.
d. The learners stay in this program during their primary studies.
2. Developmental Bilingual Program, or Late-Exist Transitional or Maintenance Bilingual Education Program:
a. The aim is to improve certain skills or efficiencies in the first language and the more advanced and well-perceived skills in the second language. The subject is taught in both languages, and the teacher masters the two languages.
b. Teaching to a lesser degree in the first language and gradually shifts to English. The learners share classes that speak English with classmates who use English fluently.
c. The variation in the program concentrates on different levels of composing in the first language and the learners gradually and continuously receive supporting levels in the first language after shifting to the second language.
3. Early-exist Bilingual Program, or Early-exist transitional Program:
a. The aim is to improve efficiency in English and its skills quickly by teaching learners an academic subject.
b. Teaching starts with the first language but shifts quickly to English.
c. The learners shift quickly and in a noticeable way to English with their classmates who speak English.
4. Heritage language Program: Indigenous Language Program:
a. The aim is the narrative composition in both languages.
b. Teaching the two languages by a teacher who masters both of them.
c. The main subject is to concentrate on those who do not speak English and who are weak in the literary native language.
d. It was called the indigenous language because it started in the societies of the American Indians and the program is supported by the languages threatened by extinction and is offered to learners who are weak in comprehension and creative skills of L1.
5. Program of Foreign Languages, or Foreign Language Immersion (Full or Partial):
a. It concentrates on learners who are weak in, or lack, lingual education.
b. In the program of foreign languages, the language is the only area of learning.
c. In the immersion program of language it is possible to teach other subjects in the target language L2.
d. The aim is to develop proficiency in the second language.

## B. Second: The Programs that Focus on the Development of the Narrative Composition in English Only

1. Sheltered English Instruction (SI) or Content-based English as a second language (ESL) Program:
a. The aim is to improve skillfulness in English and the material taught contains all English grammar.
b. learners from different languages and cultures in the same class.
c. Teaching is adapted following the aim of the learner's proficiency in English and it is supported by the first language.
d. There are fully developed various kinds of this program among which are: Sheltered Instruction Observational Protocol (SIOP), and Specially Designed Academic Instruction in English (SDAIE)
2. Structured English Immersion (SEI):
a. The aim is fluency in English, it is usually offered to learners of English only.
b. All teaching in English is to raise the level of the learners' efficiency incomprehension.
c. Teachers have to master language skills and use them in preservative instructional methods.
3. English Language development (ELD):
a. English Language learners leave English classes as ESL which focus on grammar and vocabulary and communicative skills, and not as an academic subject.
b. Generally no support for learners from their native language.
4. Push-in ESL program:
a. The aim is Fluency in English.
b. The learners join the classes of spoken English in which teaching and directions are in English with little help of the native language if necessary.
c. The teacher of English as a second language gives explanations and translation if necessary and uses English strategies.

## VI. Conclusions

- Bilingualism and multilingualism are possible since people have the capacity of storing more than one language so easily inside the mind and using them so smoothly.
- The proficiencies of using information and educational targets may develop in two languages or one language. Both channels feed the same working central unit.
- If the learner works on developing the L2 without studying the L1 (as the case is always with the common teaching methodologies), this system never works in the desired way.
- Acculturation appears gradually with bilingualism for the more the learner advances in his ability to use two languages the more he acquires their cultures.
- Learning a foreign language leads to learning a different culture that widens the understanding and develops humanity.
- An open viewpoint and a genuine tendency to understand the new culture will improve the native one, elevation and communicative efficiency, critical evaluation of the first and the second cultures.
- The ability to use the second language and the second culture is considered a means to achieve creative capabilities.
- A variety of forms are introduced for each function of 2 L , i.e. to learn about cohesion and coherence which makes learners more proficient in 2L.


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[^0]:    ${ }^{1}$ However, the limitations of early studies related to two reasons (www.LEAP.com)
    a. The context is not taken in consideration and in a precise way, for the samples of the bilingual learners are out of the real atmospheres of the languages, so it is not bilingualism that presents them in an inconvenient situation.
    b. There is no precise comparison between the cognitive capacity of the bilingual learners and the learners of a single language, for this requires that all should be equal in social, economic states, gender, age, type of school, and the rural and urban atmospheres, (and all these are not found in the early studies).

[^1]:    ${ }^{2}$ Kristina R. Olson, Ph.D., is an Assistant Professor of Psychology and Cognitive Science at Yale University.

