Does bilingual education system lead to improved learning outcomes?

Abstract

This is a research study attempting to know whether bilingual education system in Australian schools lead to improved learning outcomes for native language students, thus establishing parity in the opportunity of learning for every student.

In this regard, this study would first compare learning outcomes of certain selected schools which have transitioned from monolingual teaching system to a bilingual one across time. The study would then shift its focus to assess whether the bilingual system made a significant improvement in the learning outcome of native students across the sample of schools studied. This impact, if found significant, would then be quantified and elaborated in the form of research finding around the level at which learning parity stands established.

In case the impact is found to be not significant, the research would shift its focus to generate alternative measures to address linguistic bias in the education system.

Research Aims

Bilingual education system refers to the practice of teaching in schools in two languages – the primary language and the secondary (native) language. The aims of this research are as follows:

* Compare learning outcomes of bilingual education system and monolingual education system
* Gauge whether bilingual system leads to improved learning among students
* Assess the significance of the impact that bilingual system has on learning outcomes

The research will explore the impact that bilingual education system leaves on both the primary language as well as the native language speaking students of Australia.

Introduction

The student community of Australia has varying demographics and ethnicities. English is the primary language, however there are a large number of students speaking native language. As such, there is a need in the education system at elementary level to ensure that the native language speakers learn English and in the meantime attend their learning courses in native language. The intent is to immerse these students in to the mainstream pool of students already speaking and learning their courses in English.

This research would look in to what the existing literature has to say about the effectiveness of bilingual education system in schools. It would also evaluate the general notion that bilingual system is more effective than monolingual system in learning outcomes by systematically comparing the two.

When the medium of teaching courses at schools is only English, the native language speaking students are often left at a disadvantageous position with respect to learning as well as academic performance in comparison to their English speaking counterparts. Hence the need for bilingual education system.

The bilingual system works in a particular manner. Classes are conducted separately in both English as well as native languages. The native students initially attend the courses in native language and are taught English as special immersion course. Once they catch up to the mainstream level of English, they are relieved from the immersion course and the classes in native language. They then begin to attend classes with the mainstream students in English and become one of them.

Bilingual system also works well to help the English and the native speaking students socialize well amongst each other (Chin, 2012). Several nations across the world have adopted the bilingual education system in varying forms in order to make education more comprehensive and inclusive (Brisk, 1999).

Literature Review

There is a general consensus among authors that in diverse demographic settings bilingual education system leads to better learning outcomes for students than monolingual system. One rationale given is that the native students get the chance to come up the learning curve and get absorbed in the mainstream (Brisk & Proctor, 2012). Even the mainstream students get a chance to learn native linguistics in certain bilingual systems. Another logic says that this system ensures fairness and parity for all students irrespective of their demographic profile (Jolla, 2010).

While monolingual system leaves the onus on students to catch up on their learning, the bilingual system attempts to establish a sense of mutual responsibility between the school and the students. This shared sense of responsibility is the hallmark of bilingual system and has made it a widely endorsed method of tackling linguistic challenges (Howard et al, 2007).

Regarding the impact of bilingual education on the learning of students, there are varying views with a majority of authors agreeing upon its effectiveness in enhancing student learning. There is a minority view that says that the bilingual system is effective only when the students have the right attitude towards learning (PPRC, 2010). The majority view in contrast endorses bilingual system as a learning catalyst irrespective of the individual attitude of students towards learning (Thomas, 2004).

There is a view that the effectiveness of bilingual system towards learning is also dependent upon other factors including the region of the globe, the specific country’s environment and the emphasis it lays upon its education system. The native or the indigenous populations vary from one country to another and in certain cases, a customized approach to tackle linguistic difficulties works better than trying to fit in a highly standardized solution (Thomas & Collier, 2003).

The impact that the bilingual system has on learning outcomes of students has been found to be significant in a majority of researches performed. A rationale behind this significance is the introduction of linguistic expertise in the schools in addition to subject specific teachers. Native linguistic experts who are also professionally trained to teach young children add to the learning quantum by facilitating enhanced comprehension and stimulating the cognitive abilities of the native students in English language, thus leading them to come up the learning curve (Marian, Shook & Schroeder, 2013).

Another driver of the success of the bilingual system is the influence it leaves upon the teachers irrespective of whether they teach in English or in native language. A research found that introducing bilingual system enhanced the motivation levels of school teachers in addition to adding to the learning of students (Lindholm-Leary, 2005).

Research Design / Approach

In designing my research, it is important that the data I obtain enables me to answer the research question in a sufficient and detailed manner. I would need data around the following aspects of the research:

* The proficiency of the native language school students in English, pre and post implementation of bilingual system
* The proficiency of school teachers in native language, pre and post implementation of bilingual system
* Performance of native students in English learning, pre and post implementation of bilingual system
* Performance of native students in other courses’ learning, pre and post implementation of bilingual system
* Performance of English students in English course, pre and post implementation of bilingual system
* Performance of English students in other courses, pre and post implementation of bilingual system

My research instruments should be valid and reliable. This means to adopt a valid sampling and data collection method and a reliable and relevant data analysis technique. This step is important to ensure that the research design and execution stays consistent and in alignment with the research question and objectives.

The sampling procedures that I will be suing would be either random sampling, convenience sampling, snowball sampling or a combination of all of them. However, I will keep the sample size large so that the level of significance of the results comes out clearly. Convenience and snowball sampling methods will be used since this will ensure the respondents attempt the research questionnaires seriously and devote ample time to them.

The sample will be an approximate representative of the student population of Australia only when the sample size is sufficiently large and the respondents participate in the research seriously and elicit out genuine responses to the survey questions. The research would require reaching out to quite a few such schools where bilingual system is already implemented or going to be implemented soon and requesting the teachers to participate. Schools where the bilingual system of teaching already exists, would be required to share historical data pertaining to the academic performance of students at times when monolingual system used to prevail. Additionally, the existing data on the effectiveness of bilingual system will be required in a format similar to historical data from all schools.

The research design is boosted by the fact that student performance and learning data is readily available with most schools. The area of research work would lie in standardizing the data from different schools in to a single robust format and use it for data analysis and result generation. Designing of questionnaires for schools would also be driven by this consideration of research planning.

The randomization of sample can be ensured by reaching out to a wide nature and number of schools where students from diverse demographics are enrolled. Likewise, the gender balance in the research can be ensured by reaching out to different types of schools including co-educational, boys specific and girls specific schools.

The significance of this research lies the need of the education system to eliminate prevalent biases that hinder parity in opportunity of learning to different sections of students. Linguistic biases are not readily observable very often and this research forms a way out to establish the effectiveness of bilingual system towards learning of students and thus at least a partial elimination of this bias. The research would also open up doors for schools to customize their linguistic teaching systems such that they completely eliminate the learning bias prevalent.

The limitations of this research study lies in its nature with respect to time. This is going to be a one-time research project measuring data pre and post implementation of bilingual system and a more comprehensive research can be conducted covering several points of time provided more availability of time and resources.

Another limitation of this study lies in the specific nature of bilingual system, meaning the system of one school can vary from the system of another school in certain aspects. As such, this research will attempt to account for such variations to the maximum possible extent, however cannot rule out the impact of variations completely.

Methodology / Data collection techniques and analysis

Once the sample of schools has been identified, this research would require the development of a comprehensive questionnaire around which the success of this research revolves. The questionnaire should be open ended enough to account for the varying methods using which different schools assess academic performance, yet it should be close ended enough to extract out the specific and relevant data required for the conduct of this study.

This research focuses on questionnaire based quantitative method of data collection instead of a qualitative method such as interviews or focus groups since by the very design of this research, the level of significance of the bilingual system’s impact needs to be hard coded and verified. A yes or no here is only a partial answer to the research question since the intent is to make the research findings relevant for the education system by suggesting a concrete solution to eliminate linguistic bias.

The analysis technique of data would be governed by the design of the questionnaire as that would decide the nature of data collected. However, the nature of analysis to be performed is governed by the research objectives. The data analysis would be broadly governed by the following steps:

* Since the research begins with schools that have transitioned from monolingual teaching system to a bilingual one, the analysis would also be performed on 2 temporally different data sets – monolingual phase and bilingual phase.
* The 2 datasets would be similar in format and would be compared using an appropriate comparison test. Some areas in which the difference is desired to be measured include students’ marks in different courses and teachers’ proficiency in native language.
* The 2 datasets would be sub-divided in to 2 similar subsets each – native students’ performance indicators and English speaking students’ performance indicators. These subsets would be analysed in different ways – change in performance of English speaking students pre and post transition, change in performance of native students pre and post transition and relative change in performance of native students vis a vis English speaking students.

There would be certain other ways of analysing these data sets based on the principles of statistics and the objectives of this research. These additional analysis methods would be used as and when the research is conducted.