

DEVELOPMENT OF BILINGUAL EDUCATION IN THE ANURADHAPURA DISTRICT

REV. M. Chandrasiri Thero

Postgraduate Institute of Science, University of Peradeniya, Peradeniya, Sri Lanka
Department of Mathematics, University of Peradeniya, Peradeniya, Sri Lanka

National Education Commission (NEC) established in the year 1991 made proposals to initiate English-medium education to upgrade English-Language skills in the Sri Lankan student community. The initial proposals were to start English medium Education for G.C.E (A/L) science & mathematics stream students and to start learning and teaching process in English for few subjects and the rest in the mother tongue from the grade 6. This method is known as “**Bilingual Education**” (BE) because two languages are being used as the medium of instruction in the same curriculum.

In the year 2000 the ministry of education had taken steps to commence English medium education for G.C.E (A/L) science & mathematics stream students in national level schools. This attempt was not successful because the G.C.E (A/L) examination is a highly competitive entrance examination for selection to local universities. Also the majority of students had a phobia (irrational fear) to do G.C.E (A/L) examination in *English-Medium*. Therefore the education ministry decided to begin BE from the grade 6 but there were lots of problems at the beginning; some of them are lack of qualified teachers, weak English-Language skills among the education community and shortage of resources. However the BE was started in 2002 island-wide as a pilot project. The Anuradhapura district was also connected to this project with **one school**. Then it was gradually increased up to **fifteen schools** within the past twelve years. Under these severe difficulties in BE is continuing in the Anuradhapura district, and no positive development is indicated in this education project. Therefore this study is focused on the development of the BE in the Anuradhapura district. Main goal of this research is to predict the statistical behavior and the outcome of the overall project in the long-run. To carry out this task the research was split into four main parts as the objectives; namely

- Number of schools, joining with BE in each year; testing the *spread* of the BE.
- Number of bilingual students in each grade from the start - up to the year 2013, taking year by year into account; testing the *growth* of students' population.
- G.C.E (O/L) results of bilingual students from the start - up to the year 2012: testing the *level of improvement* of G.C.E (O/L) results of BE students (outcome of the BE).
- Number of teachers who have been engaged in BE stream from the start up to 2013 according to the categories; testing the *growth of human resources of the BE* (the categories are in the data sheet in the appendix 1).

Schools category	1AB	1C	2	3	Total	BE schools
Number of schools in the district	21	108	245	166	540	15

There are 540 schools in all four categories in the Anuradhapura district; among them 374 (1AB+1C+2) schools have G6 to G11 classes. If there are sufficient physical and human resources, all the 374 schools can provide the BE but the following table shows that only 15 schools are engaged in BE when 2013; *i.e.* only 4% of the total number.

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
No. Schools	1	5	11	13	13	13	13	13	13	13	13	15

To achieve these objectives the quantitative research approach was used via a survey research which describes trends of the sample. For this study the selected area is the Anuradhapura district. There are 15 schools currently having BE in the district. These 15 schools were selected as the sample. Relevant data were collected from student attendance registers, G.C.E (O/L) result schedules and teachers' information registers. In the process of data analyzing the chi-square test was used to test the difference of the data sets themselves. Under the 1st objective, Spread Ratio (SR) is used to evaluate the spread of the BE in the Anuradhapura district. The 2nd objective was analyzed using Dropping Rate (DR), chi-square test and bar-charts. The 3rd objective was studied using rate of passes (P) for each subject. To study the 4th objective RAQT formula and the chi-square test were used. The mathematical format of above tools is given as follows.

$$\text{Spread Ratio(SR)} = \frac{\text{number of schools having BE stream}}{\text{number of schools having G6 to G11 classes}} \times 100$$

$$DR = \frac{(N6 - N11)}{N6} \times 100$$

$$P = \frac{[n(A) + n(B) + n(C) + n(S)]}{N} \times 100$$

$$RAQT = \frac{(a+b)}{(a+b+c)} \times 100$$

Comparing the SR of the Anuradhapura district with the SRs of three districts in the central province it appears that the spread of BE in the Anuradhapura district has not grown adequately. Using descriptive statistics it was found that the dropping rate of BE students has increased in the following intervals (six year period) 2004 – 2009, 2005 – 2010, 2006 – 2011 and 2007 – 2012. Because BE English language results of BE students' are 100% successful and also results of English medium subjects are successful more than 90%. From the statistical data there is a significant increase (50% to 87%) in the availability of qualified teachers, during the period 2003 – 2013.

Moreover regression analyses show that the predictions for next five years under the four objectives are highly satisfactory because the G.C.E (O/L) results and availability of qualified teachers will be 100% in the future.