Distributive Justice in the Education Service of Sri Lanka: An Analysis of Education Statistics from 2002 to 2016

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*Abstract:-*The aim of this paper was to identify how far Sri Lanka has been successful in achieving social justice in provision of education service to the children through the public sector schools. The study based on quantitative secondary data and a set of measures to show the distributive justice. The study found that although Sri Lanka shows an improvement in the distributive justice in education service, there is still a big gap between the prevailing and the necessary situations. It was also found that even if the war adversely affected the availability of education resources in the Northern and Eastern areas, it has not reflected from the national level examination results of the students. The pupil-teacher ratio has not been significant in determining the students' performance since the percentage of untrained teachers is high in some provinces. Although it shows lower enrollments of female students at Grade 1, there is no evidence to show that females are getting lower access to resources compared to males. Finally, the study shows that the education sector needs rigorous reforms to establish the procedural justice so that it lays the foundation for the distributive justice.

Key words: Social justice, distributive justice, procedural justice, interactional justice, education service.

I. INTRODUCTION

Education is the dominant sector that can change the society and the economy of a country. It can transform the human beings into valuable human capital in many forms. At present, the World in one hand needs the accelerated growth while the adverse effects of growth are to curtail on the other. Furthermore, the development concepts such as sustainable development, inclusive development, and national cohesion show the theoretical underpinnings for the education policy framework. The economies are to be accelerated while adopting and protecting the guidelines based on these principles. The growth should be sufficient to provide employment for those who are still unemployed, to eliminate under-employment and disguised unemployment, and to absorb the addition to the labor force into the expanding economic activities. Sri Lanka has recently developed proposals for a national education policy. The second policy goal of the new proposals, "establishment of a pervasive pattern of Social Justice" is of the utmost importance since it important in achieving most of other policy goals, which are included in the proposal. However, it is essential to understand the prevailing situation about the pattern of social justice. Mapping the pattern of social justice is not an easy task. It should take all significant quantitative indicators and more complicated qualitative attributes that represent the social justice. This paper attempts to unveil the prevailing situation using the available social statistics which covers up only some dimensions of social justices.

Sri Lanka, even before the independence, and a great deal of attention was given to education. Every government that came into power after the independence attempted to expand the educational facilities of the country under the free education policy. However, there are evidence to show that Sri Lanka is still far away in social justice in the provision of distributive justice of educational resources and access to education. Unequal distribution of the education facilities among the children of the country can lead to socio-economic discrepancies in the society. Therefore, the problem considered in this study is to identify the trends in the distribution of educational resources or opportunities for the students of different regions in Sri Lanka in social justice viewpoint based on social justice indicators.

1. *A brief review of selected literature*
1.1. *A review of theoretical literature and empirical attempts in Sri Lanka*

The roots of theoretical development in social justice go far back to the history specifically to the era of Greek Philosophers. Although this term was used in politics at the beginning, later in parallel to some other sections, it began to use widely to explain the fairness or impartiality in the provision of education service for the public. Social justice keeps up a correspondence with three aspects specifically distributive justice, procedural justice and interactional justice (Jost and Kay, 2010). However, it does not mean that all three aspects should be included in a policy of social justice. Policy makers can decide what or how many of the above aspects should be included in the policy that they formulate depending on the need of the country.

According to Aristotle, distributive justice means how the scarce resources are allocated fairly and appropriately (Jost and Kay, 2010). For example, distributive justice in the case of education means that how fairly the education resources

have been distributed either between individuals or groups. The procedural justice is a recent concept compared to the distributive justice. It draws attention to the fair and appropriate procedure be used in decision making (Muzumdar, 2012; Jost and Kay, 2010). Interactional justice is concerned with the fairness of the manner that citizens act and react one another (Jost and Kay, 2010). Therefore, it seems that distributive justice is one of the major concepts that come under the theory of social justice.

In Sri Lanka, there are attempts have been made to analyse the distribution of educational resources. The studies done by researchers like Athula(2014) and Arunatilake (2014, 2008) are important in understanding how the resources have been distributed. Athulaet al (2014), based on the theoretical framework that includes adequacy, efficiency and equitability in financing the education service, reveals that still there are many gaps to be filled by policy makers and the governance in reaching a socially fair system. Chandrakumara (2010, 2009) also, constructing a composite index that shows the discrepancy among the provinces of Sri Lanka, reveals that the distribution of education resources cannot be justifiable in the equality point of view. However, the literature shows that no investigations have been linked and highlighted on the analysis of the distribution of education resources in the social justice viewpoint. Moreover, there is a gap in the literature to show what has happened in the period after 2012 in the allocation of education resources.

1.2. Education policy changes after the independence

Education of the Sri Lankan nation has been methodically started with the arrival of Arahath Mahinda during 250 – 210 B.C. (Ranasinghe, 2008). However, with the capture of the maritime areas by the Portuguese in 1505, they established schools under the policy of propagating the Roman Catholic religion in the country in the mother tongue (Ministry of Education, 2013). The policy for establishing secondary schools was to provide education for the children of the Portuguese officers involved in different duties of the country. This policy remained during entire period of their rule in the maritime region for nearly 150 years.

After the Portuguese, the Dutch who could ruled the maritime region had a policy of education aiming to produce people who can involve in civil administration and trade (Ministry of Education, 2013). They expanded the education by increasing the number of schools and tried to separate education from the catholic religion introduced by the Portuguese. For the first time in the history, the Government interfered in controlling education in the areas under their rule which was remained for about another 150 years after the Portuguese.

The roots of the modern education system go back to the British rule in the country. They had policy of providing education to the natives with the policy of recruiting them in low level positions in the public service and the trade and plantation sectors. Some schools where the medium of instruction English charged a fee while the Sinhala medium

schools for the children of the native common people were run by the government finance. As such, a dual policy of charging a fee in some schools and providing education free of in other schools started in the country during the British rule. In addition, the government was in the policy of providing basic education for the children as a strategy to minimize crimes. With the expansion of educational facilities of the country, the government started the department of public instruction in 1869 in order to maintain the standards expected by the education service (Medagama et al, 2014). Therefore, it seems that the government policy of the present modern education started before the independence during the British rule in the 19th century.

Little earlier than the independence, under the access grated by the Donough more Constitution (1931-1947), Dr. C.W.W. Kannangara, who was responsible for the portfolio of education, made the first rigorous nationalistic move of educational reforms (Sedere, 1916). Under the new policy to expand education for all children, a package of policy actions was introduced. Provision of free education from kindergarten to the university first degree level, setting up of central colleges, teaching in schools in national languages, provision of midday meals for students were the major components of this package. This was the first time that determined the education policy in the history of Sri Lanka according to the decisions taken by national representatives of the country. Under this move a national system of education in the country was strongly established after the independence in 1948.

In the post independence era, within the main framework of free education some developments could be seen. Establishing a curriculum development centre in 1969 according to a decision taken in 1968 (UNESCO, 1977: Ariyadasa, 1976) can be considered as one main step taken by the government to transform the education in a way that it matches the national needs. Later, the task carried out by this centre was undertaken by the National Institute of Education (NIE), which was established in 1985 and training of teachers and education administrators also became the other main task of this new institute. In addition, pre-service training for teachers was provided to the school leavers who got higher results little lower than the cut off marks to the universities through National Colleges of Education established in 1986. Training institutes to provide in-service training for teachers were also established after 1972 in Sri Lanka (Ariyadasa, 1976). These developments show that developing the national education of the country both in quantitatively and qualitatively was the main policy of the post independent governments.

Observing the experience of education outcomes of the country for about 42 years since independence, it was a significant action taken by the government to establish the National Education Commission (NEC) in 1991 as a policy making body of the education sector. This commission was important since it provided the opportunity to take consensual policy decisions before implementing policies.

The welfare policy instruments which have been used by different governments came into power from time to time are many. Among them, free education in the island-wide school network, free textbooks, free uniforms for students, midday meals, free dental services, subsidized school transport are the main. The aim of this welfare policy package was to encourage children for education and encourage parents to send their children to schools. Recently, the Government's education policy and the program with the vision and mission has been shown in 'Education First, Sri Lanka' issued by the Ministry of Education in 2013. This plan shows the education sector development framework program has been shown in for 2012 – 2016 and the following policy themes have been focused in it:

1	increase equitable access to primary and secondary education
2	improve the quality of primary and secondary education
3	strengthen governance and service delivery of education

Source: Ministry of Education, 2013.

Again, in 2016, the proposals for a national policy on general education in Sri Lanka were formulated by the Ministry of Education in Sri Lanka (National Education Commission, 2016). This document shows the policy proposals under different subsections of education sector. Furthermore, it includes some mew topics like quality assurance, career guidance in schools which are important in building up of children during schooling.

The free education policy of the country has become politically highly important and no direct efforts can be made to introduce even a little change. However, it can be identified that two main influences gradually diminish the importance of the free education of the country. First, the government allows and encourages the private sector institutions to enter the education market. Second, the labor market of the country has become such that it employs mainly those who are affluent with English, IT, communication skills and other necessary soft skills which are not sufficiently provided for the students from most of the schools and institutions that provide free education for the students. As such, as a strategy to face the competition, parents of the middle class and above attempt to enroll the students in private schools for primary and secondary education and also in private or overseas universities and affiliated institutions for higher education. After leaving schools, some students avoid the academic courses or programs and continue training in professional courses aiming employing in better positions for higher salaries.

At present, the national education policy has an effect on determining the aims and goals of education from primary to higher education and all other types, establishing and the distribution of educational institutes throughout the country, admission of students and recruitment of of teachers, curriculum development, human and other resource management in education and allied sub-sectors, and community participation in education (National Education Commission, 2016). This policy has been evolved due to the many changes that Sri Lanka has been experienced during the period after the independence.

II. AIM AND SPECIFIC OBJECTIVES

Considering the above facts, this study aimed to identify how far Sri Lanka has been successful in achieving social justice in provision of education service to the children under the free education policy through the public sector schools. In order to achieve the aim, it was intended to examine specifically how far students in different regions have the access to enter the better quality schools; how far male and female students in different regions are comparable in their access to high quality schools and quality human resources (teachers), and finally how equal is the opportunity of students entering a university in different regions.

III. METHODOLOGY AND DATA

The study is based on the principle of social justice and it is the distributive justice examined in the analysis. The analysis is totally based on secondary data obtained from the published school census reports. In addition, the data pertaining to the university admissions and graduation were obtained from the statistical reports of the University Grants Commission (UGC) of Sri Lanka. Furthermore, findings previous researchers were also incorporated in the study especially at the review of the empirical literature on policy changes, employability of graduates, etc.

This paper employs only descriptive statistical measures like tables, bar charts, radar charts, scatter plots, Pearson correlation test, etc. In order to judge the distributive justice on educational resources and benefits the following indicators which are either available or calculable through the available data are used:

1) Pupil-teacher ratio by districts: This measures how equally teachers have been distributed among the districts.
2) Schools by Gross Pupil-teacher ratio
3) Grade 1 school admissions by gender: This is an indicator that measure how the school education is demanded by male and female students.
4) Students in 1AB schools as a percentage of total number of students of districts: 1AB schools can be considered as the best institutional network available in the country under the remaining education system. As such, the percentage of students who have been enrolled in these schools as a percentage of total number of students enrolled in all the schools of each district is calculated as a measure.
5) Enrollment of students in 1AB schools by gender: Percentages of male and female students enrolled in schools are taken into consideration. This shows how

far females are able to enroll in 1AB schools compared to males.

6) Distribution of Untrained Teachers (Percentages) by Province: Graduate and trained teachers are the best for teaching as human capital assets available for the students even as the untrained teachers can be considered as the opposite. Thus, the percentage of untrained teachers in comparison to t he total student population of each district is taken as an indicator.

7) G.C.E. (Ordinary Level) students qualified for Advanced Level at their first attempt by district

8) G.C.E. (Advanced Level) students eligible for university entrance by district

IV. RESULTS

The results of the analysis can be presented using different statistical measures as mentioned above. First, the radar chart in Figure 1 shows the pupil-teacher ratio in three different years starting from 2002 to 2016. The pupil-teacher ratio in war affected areas shows very poor in by 2008 compared to other areas. However, after the war, by 2016, that situation has become normal. This means that the war has been a severe barrier for ensuring social justice for the school children in their availability of teachers in the schools of their areas. Furthermore, it reveals an unequal distribution of teachers between areas when considering the pupil-teacher ratios between districts. By 2016, the ratio has been turned favorable in almost all districts of the country.

Figure 1
Gross overall pupil-teacher ratio
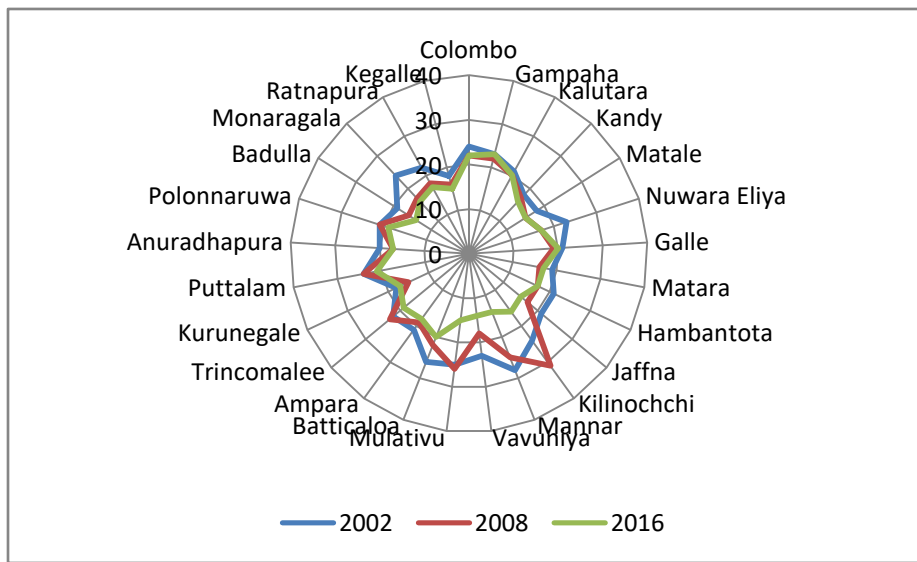
Source: Author constructed using the data of Ministry of Education, 2002, 2008, 2016

A gender analysis on the admission to Grade 1 shows that in every year female admissions are below the male admissions. However, this study does not analyze why female admissions are below since it needs qualitative primary data.

Figure 2
Grade 1 Admission by Gender
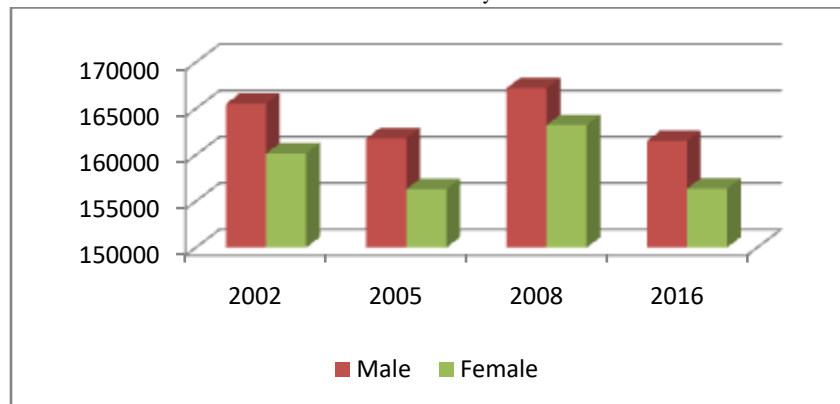
Source: Author constructed using the data of Ministry of Education, 2002, 2008, 2016

Distributive justice should be assured between schools also. Table 1 shows that the gross pupil-teacher ratio below 20, which reasonably good, has been attained only by 71 percent of schools, while the remaining schools are poor in the availability of teachers. Above all, the table shows that for 1.3 percent of schools pupil-teacher ratio terribly high and it exceeds 100 pupils per teacher.

Table 1

Schools by Gross Pupils Teacher Ratio In Sri Lanka (%)

Year	Below 20	21 to 100	101 & above
2002	70.9	27.7	1.3
2008	74.0	25.9	0.0
2016	64.8	33.0	2.2

Source: Ministry of Education, 2002, 2008,2016

Schools in Sri Lanka are divided into five main categories such as 1A, 1B, 1C, 2 and 3. Out of all these schools 1AB are the best in availability of courses and the access to resources. Figure 3 shows how unequal is the distribution of 1AB schools between the districts of the country. The percentage of students in 1AB schools is highest in the Colombo district while it is lowest in Nuwara-Eliya district in all three years 2002, 2008 and 2016. The position in war affected areas shows a high improvement by 2016.

Figure 3

Students in 1AB schools as a percentage of total number of students of districts
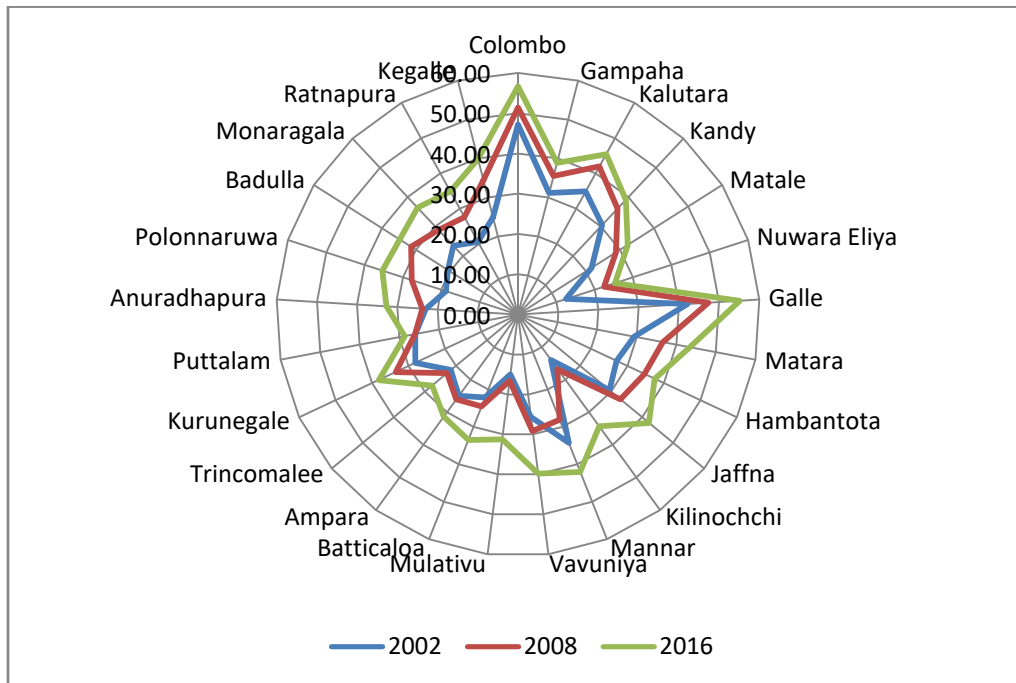
Source: Author constructed using the data of Ministry of Education, 2002, 2008, 2016

Percentage of untrained teachers is another indicator that shows the distributive justice among different regions. Figure 4 shows that the untrained teachers are very high in the central province. Even if it has declined to a certain extent by 2016 it is still high compared to all other provinces. This situation is awful when considering education of children of the central province. If this situation in the central province does not create such disadvantages on the students' performance, it means that trained and graduate teachers do not add more to the performance of students. By 2016, percentage of untrained teachers has largely declined in the North Central Province.

Figure 4
Distribution of Untrained Teachers (Percentages) by Province
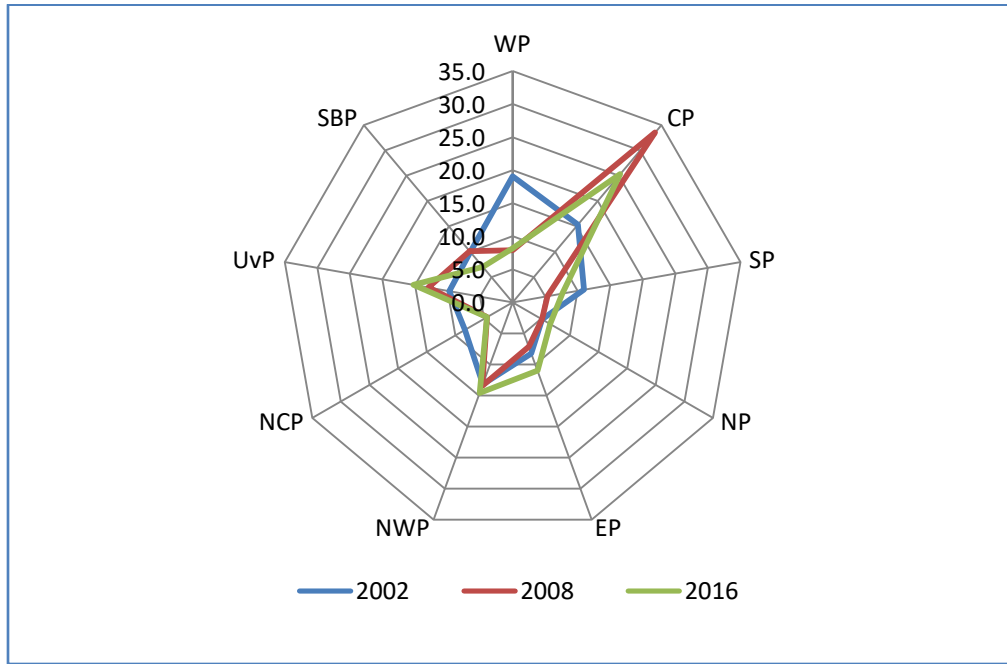
Source: Authors constructed using data of Department of Examinations, 2002, 2008, 2016

Figure 5 clearly shows the percentage of students qualified for G.C.E. A/L at their first attempt of G.C.E. O/L. Lowest and second lowest percentages, during the war time, have been indicated in Kilinochchi and Mulative respectively. However, even if the Vavniaya was adversely affected by war, the qualified percentage of that area has been very high so that it is the highest after the Colombo district. The outstanding feature which is seen from the figure is that the qualified percentage in 2016 has been increased in all regions compared to 2008.

Figure 5
G.C.E. (O/L) Students Qualified for A/level at first attempt by district
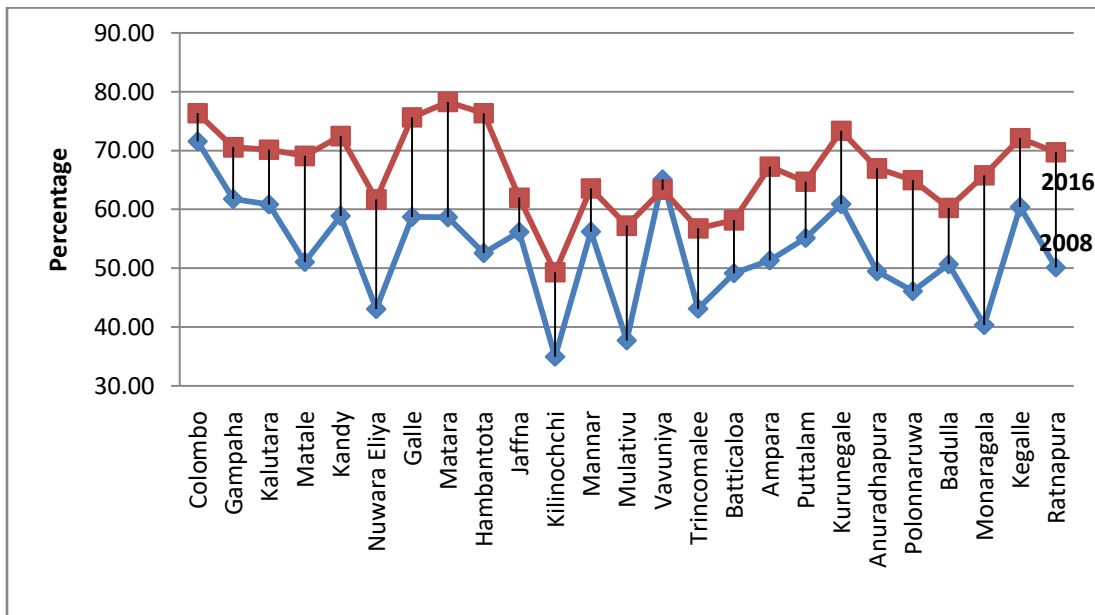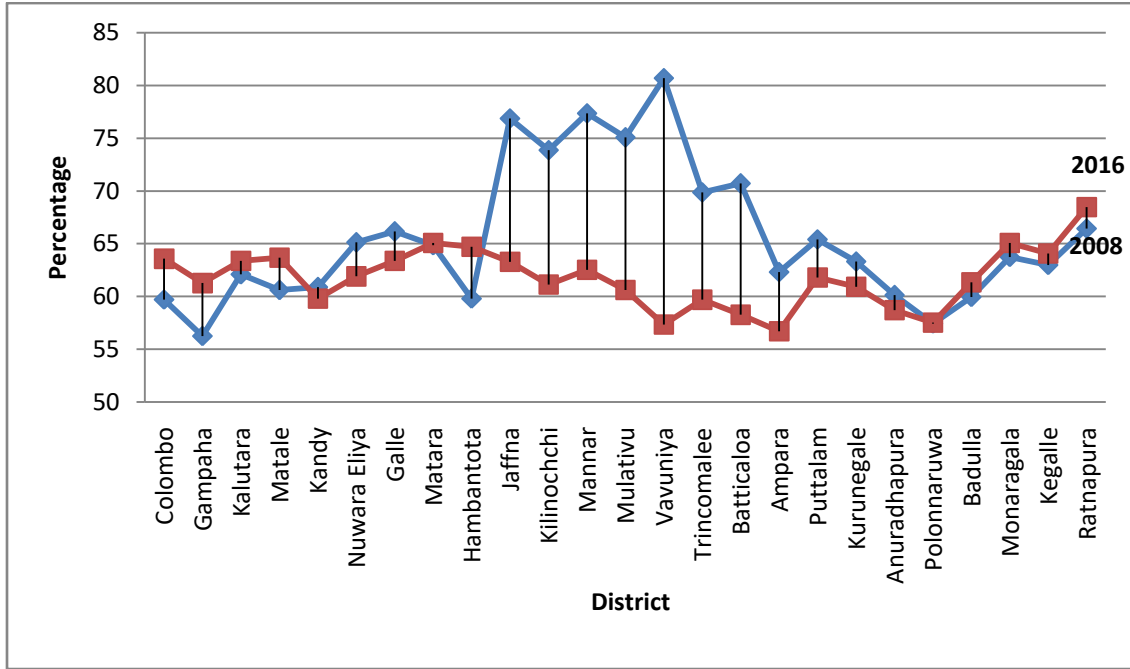

Source: Authors constructed using data of Department of Examinations, 2008, 2016

Figure 6 is another important indicator of social justice. It shows how the students from different districts have been qualified for university entrance when considering their G.C.E. A/L results. This figure also shows an interesting result that the students in war affected areas (during the war time) have been outstanding in being eligible for university entrance compared to all other districts.

Figure 6
Students of G.C.E. (A/L) eligible for university entrance by district

Source: Authors constructed using data of Department of Examinations, 2008, 2016

The scatterplot in Figure 7 suggests a definite positive correlation between 'eligibility for university entrance' and the 'Percentage of students in 1AB schools'. Similarly, scatterplot in Figure 8 also suggests a definite positive correlation between 'percentage of students in 1AB schools' and 'Performance at GCE Ordinary Level'. The other normality check used in the analysis, boxplot, for all the variables is fairly consistent and the median is fairly close to the centre of box and the whiskers are of approximate equal length as shown in Figures 9, 10, 11 and 12.
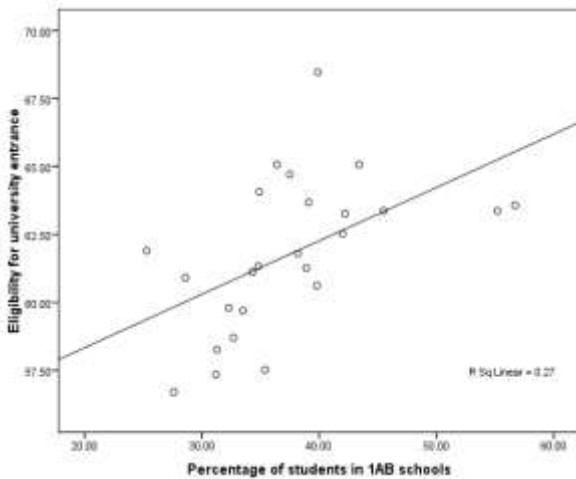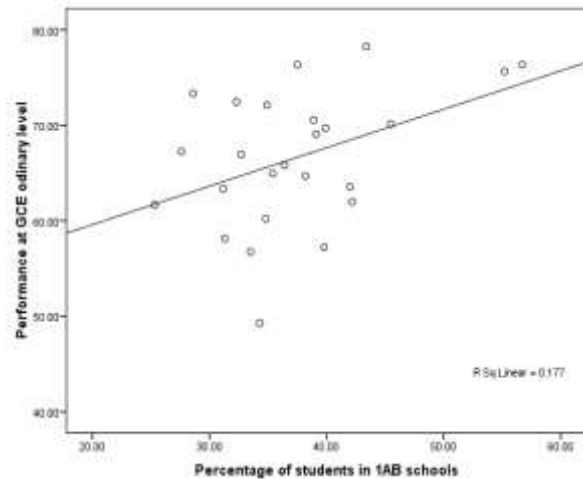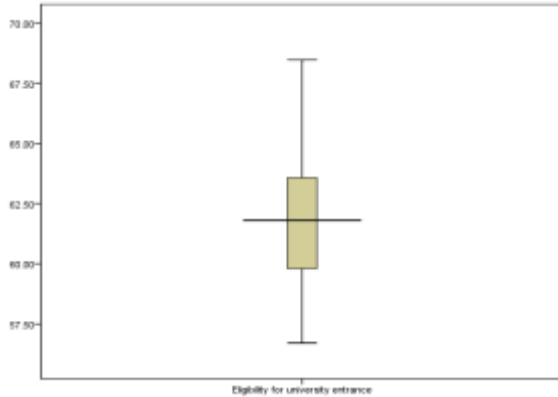
Figure 7

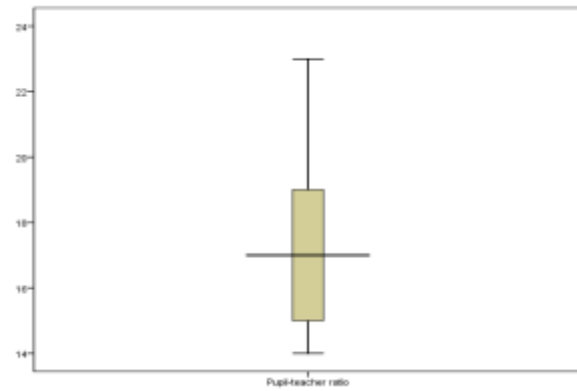**Figure 8**

Figure 9

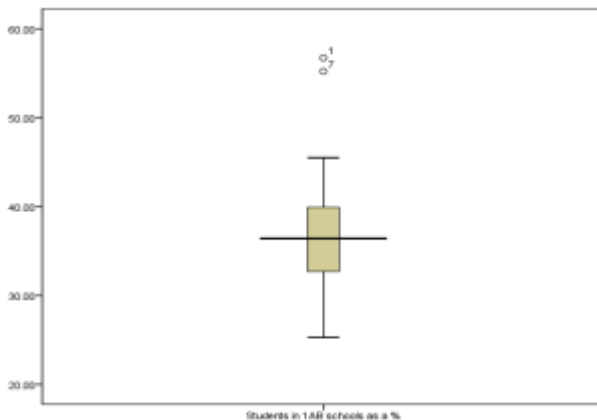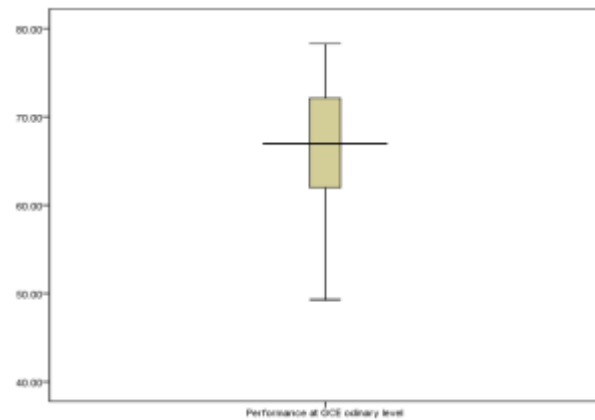**Figure 10**

Figure 11

Figure 12

The relationship between 'eligibility for university entrance' and 'percentage of students in 1AB schools shows a positive correlation of .519 and this relationship is statistically significant at the .008 level. It means that the students in 1AB schools have a higher correlation in being eligible to enter university.Furthermore, when considering the relationship between 'performance at GCE Ordinary level', it shows a moderately positive relationship with a correlation of .420 at .047 level of significance. However, the relationship between 'eligibility for university entrance' and 'pupil-teacher ratio' is not significant. However, the existence of correlational relationship does not necessarily mean that there exists a causal relationship and in order to come to a decision on that it needs further investigations.

Table 2 Correlations

		Eligibility for university entrance	% of students in 1AB schools	Pupil-teacher ratio	Performance at GCE Ordinary Level
Eligibility for university entrance	Pearson correlation Sig. (2-tailed)	1	.519** .008	-.127 .546	.418* .037
% of students in 1AB schools	Pearson correlation Sig. (2-tailed)	.519** .008	1		.420* .037
Pupil-teacher ratio	Pearson correlation Sig. (2-tailed)	-.127 .546	.226 .278	1	.381 .060
Performance at GCE Ordinary Level	Pearson correlation Sig. (2-tailed)	.418* .037	.420* .037	.381 .060	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

a. Listwise N=25

V. DISCUSSION AND CONCLUSIONS

By 2002, under the free education policy prevailed from kindergarten to the bachelors degree level in combining with the policy of medium of instruction through native language (Sinhala or Tamil) and the rule of compulsory education up to grade 9 (age 14) had created a huge demand for education. As has been happened until then, improvements in distributive justice have been undergone after 2002 too. Although the indicators took into account shows a trend towards a favorable change in social justice. However, the attention should be given to the fact that even if students in everywhere of the country have access to schools still there is a huge gaps between districts, provinces, schools, etc. The situation is more rigorous in case of the distributive justice in qualitative sense. For instance, even if there are schools in far-off and remote areas of the country, the quality of those schools are very poor compared to the schools of the urban centres in physical and human resources as well. The analysis shows that the percentage of students in 1AB schools have a positive relationship with the C.C.E. Ordinary Level passing rate and the eligibility for university entrance at their first attempt of G.C.E. Advanced Level Examination. However, the available data does not unveil a large part of this picture and an in-depth study which includes qualitative data should be conducted to reveal how the quality differences of schools affect the student performance.

The study shows that female admissions at Grade 1 are lower than that of the males in all years. However, the analysis does not show that females are getting fewer resources compared to men for being females. In university admissions also females are either equal or showing a higher representation compared to the male students.

The study unveils that the comparison of pupil-teacher ratio is meaningless when the qualified and trained teachers are unequally distributed between schools or regions. In order to concise the analysis, the study paid attention on the distribution of untrained teachers among the provinces and found that it highly varies. The central province which includes three districts has the highest percentage of untrained teachers though it has little reduced by 2016. As shown in the correlation test, the relationship between pupil-teacher ratio and the students' performance has not been statistically significant. When considering this situation, it seems that any government should not take steps to recruit teachers as a part of employment generation programs despite their qualifications and the provision of necessary training since teachers are the driving force that transform children into valuable human capital.

The study also reveals that the unfavorable situation prevailed in the war-affected areas like Mulative, Kilinochchi in during the war time has been to a large extent lessened after the war. For instance, the execrably high pupil-teacher ratio prevailed in Mulative and Kilinochchi in 2008 has been largely disappeared by 2016.However, a further investigation is needed to find out how the results of students of the war affected areas had a miracle rise during the war time than ever and than all other districts of the country although the war hindered the education of students. Furthermore, it is not clear that why the percentage of students qualified for A/level at first attempt of their Ordinary Level examination shows no improvement after the war as against all other districts of the country.

Chances to enter a university vary between children due to many reasons. But, among these reasons, unequal distribution of resources between schools and areas of the country should be minimized. For instance, if the children in a rural area do not have a school in their area, the will lose the chance to study and pass the due examinations to get qualified to enter a university. This situation is more pathetic and unfair in the case of the children who are willing to study in the science stream. In some areas of the country, no schools where the science stream is available. Even if some there are schools in some areas, no human and physical resources are available in comparable to the national schools available in urban centres.

In order to ensure the distributive justice in education, procedural justice is a precondition. For instance, stakeholder participation in different stages of educational policy making and management will evade the possibility for distributive injustice. Systematizing and streamlining the procedures of locating and facilitating schools, allocation of resources, admission of students, etc. are the key changes required for guaranteeing fair distribution of education service among individuals, schools and districts or areas. The social justice in the public sector education should be higher than that of the private sector. However, in practice even if the childrenin Sri Lanka haveequal opportunities to learn from popular teachers if subject to the ability to pay whereas the public sector is highly criticized for all kinds of malpractices.

A further investigation is needed to triangulate quantitative data with qualitative data in order to understand the real situation of the social justice in the education service in Sri Lanka. However, these findings are sufficient to take necessary actions direct the education service by the national level education policy institutions of the country.

Conclusion

When considering quantitative data Sri Lanka is in moving towards equality in the distribution of education resources to a certain extent. However, the country is still far away to reach the social justice which is to be realized in terms of the equity in the distribution of education service in the country. Access to education differs between individuals, schools, districts and provinces as well. A qualitative analysis that investigates this issue will be more effective to unveil the real situation on the distributive justice.

The war prevailed for 30 years has adversely affected for the resource availability of the northern and eastern areas of the country. However, it is contradictory that even if the resource

availability was deficient in the war affected areas, the passing rate at the G.C.E. Advanced Level Examination has been remarkably high compared to all other areas of the country. The resource availability in these areas is being improved remarkably after the end of the war.

The teachers who are not qualified and untrained will make nothing for the performance of students. As such, just mere pupil-teacher ratio is not a good measure to understand the social justice in the distribution of human resources between schools and areas. Furthermore, it shows that the distribution of better quality schools among the districts and provinces of the country is more pathetic than the distribution of schools in general.

Finally, it is clear that the education policy makers should take necessary procedural actions in improving the distributive justice of the service. The education system needs rigorous reforms to ensure the procedural justice.

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