

**NATIONAL INSTITUTE OF EDUCATION
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Educational Reforms Beyond Kannangara for the 21st Century

Dr. C. W .W. Kannangara Memorial Lecture

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Hon C. W. W Kannanagara is truly the father of Free Education in Sri Lanka who had a vision of providing free education to all at all levels from primary to tertiary in 1944, whereas it was only in 1990, after Jometien EFA conference, the world development organization advocated at least primary education must be free for all. After 70 years of free education Sri Lanka has accomplished the Kannangara agenda with achieved high performance in the socioeconomic indicators. Now the time has come for Sri Lanka to go beyond the Kannangara agenda to ensure the Sri Lankan children and youth are offered the 21st skills based education. Though Sri Lanka records high performance in internal efficiency of the education system, the external efficiency is low due to heavy academic and examination oriented education and negligence of developing skills. The 21st century learning framework demands generic skills as a learning outcome. Educational reforms need to address the issue of developing an innovative curriculum and authenticated learning and assessment systems to ensure the 21st century children of Sri Lanka to acquire generic skills and to be able to do things than simply have the knowledge of things with no skills to perform.

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Introduction:

Dr. Christopher William Wijekoon - (October 13, 1884 to September 29th, 1969), a legendary heroic politician is dearly remembered and commemorated today is acknowledge by the Sri Lankans as the father of free education in Sri Lanka. C. W. W. Kannangara is commemorated by all Sri Lankans because of the educational reforms that he brought forward in 1944, seventy years ago. Dr. Kannangara entered Sri Lanka politics with the granting of universal adult franchise to Sri Lankans by the British colonial rulers in 1932. It is the last decade before independence, was a transitional period of self-government by the Donoughmore Constitution, which allowed Sri Lankans to elect 46 State Councilors to the State Council. The Donoughmore reforms granted seven portfolios to the elected Sri Lankan councilors. Education was one of the seven portfolios. Each of these portfolios had an executive chairman; The Chairperson of the executive committee was the Minister for the portfolio. Dr. Kannangara became the first Minister of Education in Sri Lanka and chaired the committee from 1937 - 1946. Donoughmore Constitution placed three critical portfolios with three British officers –Legal, Finance, and Chief Secretary and they were appointed by the colonial administration. Together with the elected Chairpersons the ‘Board of Ministers’ was formed. (Note: There was no Tamil representation because the four constituencies of the Jaffna Peninsula boycotted the election as they felt they were under-represented.)

Today, Dr. Kannangara is called **‘the father of free education in Sri Lanka’** because of the successful struggles that he led to grant free education to all who seek access to education. His struggle was not only with the British Colonial rulers to find financial support for his reforms particularly at the time of the 2nd world war. His struggle was also with some of his fellow Sri Lankan State Councilors who were directly or indirectly opposing the free education move. Although the Donoughmore Constitution placed education under an elected ‘Education Committee’ the implementation of reforms had to be done through the ‘Board of Education’ that was established by Ordinance No 1 of 1920, placing all administrative powers and authority of approvals and implementation of programs. The ‘Board of Education’ inherited more authority than the ‘Education Committee’ and hindered the efforts for reforms. Yet, Kannangara was determined to push his free education agenda successfully. Prof. J. E. Jayasuriya, who had the opportunity to work with Dr. Kannangara as the Chairperson of the 1960 National Education Reforms Commission, states that for sixteen years, Dr. Kannangara strove unceasingly to open wide opportunities for free education for all. The facilitation of the expansion of free education in the context of the then Sri Lanka was no easy task – (Jayasuriya 1988).

The nation was fortunate to have Dr. Kannangara as the first minister of education because as an elected politician he had the right commitment and will to bring about a real change to provide free education and expand it for the common good of the people. This is evident to us because some of the elected members of the same State Council did not support the move for free education. If one of those elected members had been the chairperson of the committee, the future of the children of the less affluent class in Sri Lanka would have been jeopardized, free education would have been definitely

delayed and our present achievements in the domain of human resource development would not have been achieved. The nation is thankful to Dr. Kannangara as well as to those who untiringly supported the struggle to bring about free education and expand educational facilities to all citizens of Sri Lanka.

Dr. C. W. W. Kannangara introduced the Education Bill that contained the Free Education scheme on May 30, 1944 with one of the longest speeches in the legislature. When he concluded his speech on the adjourned day on June 02, 1944 he sat down under a thunderous applause. M. S. Aney the Indian government representative who had listened to the whole speech from the distinguished visitors` gallery immediately rushed from the downstairs, took Dr. C. W. W. Kannangara by both hands and said to him `You would have been worshipped as a God, had you been in India. To the surprise of many the hero Dr. C. W. W. Kannangara who brought about the free education and liberated the rural poor, lost his seat at the next parliamentary elections in 1947. Mr. Wilmet A. Perera defeated Dr. Kannangara with the help of the affluent rich and the socialists camp. Even the communist in Sri Lanka worked against Dr. Kannangara`s election. He was elected once again at the 1952 but never made the minister of education. The merits of today`s events and actions are judged by the next generation. It cannot be judged by movements of today. Merit of reforms is judged by the benefits that they receive and not the short term political movement. Kannangara is commemorated as father of free education even after 70 years, though he was ousted immediately after introducing free education.

I do not intend to talk much about each and every reform that the Special Committee of Education Report of 1943 because there are hundreds of articles and book on his contribution to education. The major reforms he brought introduced are:

- Granting Free education,
- Establishing three types of schools – Secondary, Senior, and Practical Schools
- Introducing Vernacular medium of instruction at Primary level and bilingual or English Medium schools for Junior Secondary level and English schools for Senior Secondary and higher education;
- Establishing Central schools with boarding facilities and scholarships to expand access for higher secondary education;
- Introducing Religious education
- Facilitating Adult Education for illiterate adults;
- Institutionalizing regular monthly salaries for teachers;
- Localizing curricula and examinations
- Establishing an autonomous university

These educational reforms were introduced in October 1944 after the approval of the reforms by the State Council. The Practical School that the reforms proposed was not implemented.

The 1944 Educational Reforms generated a process to facilitate schooling. The number of schools, number of students enrolled, number of teachers serving, number completing primary and secondary schooling increased significantly. Four hundred (400) new schools were built during the four years 1944-48 and student enrollment reached 1.2million. The reforms provided night schools for adults as well. Dr. Kannangara proposed three types of schools – secondary schools leading to university education, senior

schools leading to polytechnics, and practical schools leading to Agricultural colleges. Although evaluation supported the Practical schools experimented with under Handessa Schools system in 243 schools, it had an abrupt ending. If the Handessa school system (Grameeya Pasala) was continued and expanded the crisis of unemployment that Sri Lanka has had to face throughout the recent history (post-independence period) would have been better addressed.

Free Education and Socioeconomic Context of 1943 Reforms:

One must realize that education cannot progress without the support of other services. Reforms happened during the 2nd world war. By the 1930s the Sri Lankan villages were wrecked; village institutions and irrigation systems and the take-over of village lands by the colonial British led to famine which assisted in the spread of epidemics such as dysentery, cholera, tuberculosis, malaria, etc. spreading fear and terror among the Sri Lankan peasants. One of the principal issues dealt with and which has relatively recent origins was the malaria epidemic of 1934-35, though there were earlier epidemics in the dry zone It was a major cause of death until the late 1940s and depended on the extent to which conditions favored the malaria carrying vector mosquito both in the dry zone and wet zone (Meegama, 2012¹). By handing over of Health portfolio to elected Sri Lankans, side by side health services too improved during this period. Feeding programs for the poor were introduced under the Poor Law Ordinance of 1939 and social services expanded. Milk feeding programs and milk distribution centers started all over the country. The Anti malaria campaign began spraying DDT to stop spread of malaria. It is important for us to understand that these collective efforts of all departments supported the progress of education. These programs enabled all school aged children to enroll in schools, and learn to improve standard of living.

It is important for us to understand the contextual framework of Kannangara Reforms. Why he supported free education, vernacular medium of instruction, Practical Schools for 80% of the students and limited access to 05% to Secondary Schools and 15% to Senior Schools. All these recommendations have a bearing on the socioeconomic context of that era. Reforms were needed to address the issues those were evident.

Dr. Kannangara opted and dedicated his efforts for change. His intentions were to bring social reforms through education to address the burning problems of the day. Column two of Table –I presents some of the critical socioeconomic indicators. People were so poor and they could not afford fee levy education. The number employed in wage earning occupations was so small. In 1937 only 39% was literate; female literacy was as low as 12%. Less than 8% had some form of secondary education. Health situation in the country was very poor and was threatening all socioeconomic activities. The malaria epidemic was causing 36 deaths per thousand. Birth rates were as high as 38 per 1000. Infant mortality rate was as high as 141 per 1000. Life expectancy was around 42 years. In a 6 million population dependency rate was as high as 72% and only 2.6 million was engaged in some occupation and over 50%

¹ Meegama (2012): Famine, Fevers and Fear: The State and Disease in British Colonial Period. Nov 30, 2013 -, Sridevi Publication, Sri Lanka, 2012. www.ips.lk/staff/ed/latest_essays/downloads/2013/famine_fevers_fear_ips.pdf

was peasants. Only 900,000 were wage earners. Unemployment rates were high. Access to education and health care was seriously limited.

One should not forget the global situation in this period of time. The 2nd world war broke out at the same time. Scarcities were growing. Transportation of goods and services became more difficult. Despite these difficult circumstances the educational reforms were implemented.

During the 2nd world war and immediately after the war the entire world had to address new issues. Europe, the Colonial Masters, was helped by the Americans with their Marshall Plan. The colonial administrations were not geared to have development plans for the colonies. The approach to development was a 'Charity Based Approach' (CBA) where things were given on charity. "Charitable allowances" for the poor (Pin-Padi), free food, distribution of milk etc. were extended to a large number in Sri Lanka. The Poor Law Ordinance was implemented. The Charity Based Approach to development continued with adjustments until the 1960s. Free rice ration was a big issue in the 1960s. Situation changed in the 1960's. The free rice to all was change to subsidized rice. If education is to be given to all, free education was the only choice. Vernacular medium was the only choice because only 03% of the population was literate in English and even finding teachers to teach in vernacular media was difficult. Reforms advocated 80% of the students to be admitted to Practical Schools because unemployment was so high and there was no gainful employment for many. The only possible area of employment was agriculture. The nation was not self-sufficient in rice and food. The peasants were so poor. They did not own land. Night schools were opened because parents were illiterate and did not know how to deal with personal, family and community health problems. There were more births and deaths. The village elite were exploiting the poor. The economic dependency was very high.

Due to then prevailing contexts, free education was the only choice if education was to be given to all. Vernacular medium was the only choice because only 3% was English literate and even finding teachers to teach in English was not possible. Reforms advocated 70% of the students to be admitted to Practical Schools because unemployment was so high and there was no gainful employment for many. The only possible area of employment was agriculture. The nation was not self-sufficient in rice and food. The peasants were very poor. Night schools were opened because parents were illiterate and did not know how to deal with personal, family and community health problems. There were more births and deaths. The village elite were exploiting the poor.

It is important for all Sri Lankans to realize that many of the developing countries, including all South Asian countries introduced free education only after the Jomtien conference on Education for All in March 1990. When the other developing countries were making plans to achieve universal primary education, thanks to Dr. Kannangara's vision and leadership, we had already reached those goals by 1990. The Human Development Index of 1990 is a clear indication of this when Sri Lanka recorded 0.65, it was 0.185 for Bangladesh, 0.29 for India, 0.305 for Pakistan (UNDP 1992).

Socioeconomic Up-liftment:

The impact of the educational reforms of 1944 facilitated an unprecedented social up-liftment in the last seventy years in Sri Lanka. All governments elected after independence continued to support free

education and the expansion of education at all levels. In 1960s many colonies were given independence. The Russian Socialist Economic Policies were spreading as the popular choice in all former colonies. With that changing global context in the 1960s, the development vision was shifting from the 'Charity Based Approach' (CBA) to the 'Need Based Approach' (NBA). Advocacy was for planned economies. Mrs. Srimavo Bandaranaike's government (1960 – 1965) facilitated the further expansion of free education and established a larger number of schools than in any other five year period in the history of education in Sri Lanka. A large number of schools were up-graded to Maha Vidyalayas, opening up Senior Secondary Education to rural student. Her government introduced free textbooks, mid-day meals and limited curriculum reforms.

The 1972 educational reforms further expanded the facilities and the quality of free education with the introduction of English, Math and science education to all schools. As a professional who has served in almost all South Asian countries I value these reforms more because I have realized how much the Kannangara reforms contribute to the general welfare of all Sri Lankans. The policies and practices that he initiated and institutionalized were the beginning of a long journey for the betterment of the quality of life.

If not for the Kannangara reforms we would have been at a similar stage like our neighboring countries. Although India, Bangladesh, Pakistan has made significant progress since Education for All (EFA) declaration in 1990, yet they have a long way to go in providing basic education to achieve basic literacy for all; where-as Sri Lanka stands out amongst all developing nations as the most literate nation.

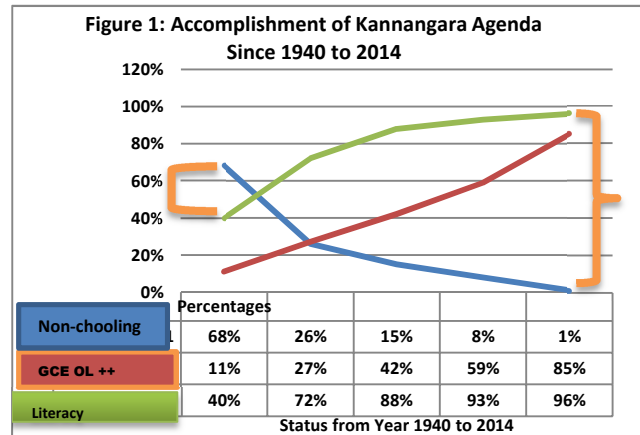
The current educational issues in Sri Lanka are not about achievement of basic literacy like in India, Pakistan or Bangladesh. The nation salutes Dr. Kannangara and his close associates for the process that he initiated, facilitated and enabled us to achieve such distinction over the last seven decades. Kannangara's education movement is even more appreciated because India - (Bangladesh and Pakistan were a part of India then) made a similar move to introduce education reforms in 1944 but the Indian educational reforms did not make any significant headway. We all know that the political reforms of 1930s' – 1940s were not only in Sri Lanka. In fact our political movements for independence closely followed the Indian political movements. That's why India got independence before Sri Lanka. Similarly there were education reforms in India and transitional governments vested with similar responsibilities in the Indian sub-continent yet the reforms died and failed in India. What Kanangara and his associated brought forward, facilitated and established in Sri Lanka undoubtedly contributed to the pride of Sri Lanka as an educated nation, not just a literate nation.

Today in Sri Lanka 76% of the younger population (below 40years) has achieved secondary education. Today Sri Lanka has a population where 62% have had secondary education which is an unprecedented level of achievement even when compared with developed countries.

I wish to introduce Dr. Kannangara as a reformist of that era. He was one of the leading Change Agents of that era. He was strongly supported by several State Councilors and without their support Kannangara could have failed to introduce the changes to the same extent. It is important for us to pay tribute to all those who untiringly supported Dr. Kannangara in his endeavor for change.

Is Kannangara Agenda Unfinished?

Many of the recent publications tell us that Kananagra Agenda remains unfinished. The publication by NIE compiling previous 13 Kannangara Memorial Lecturers (NIE 2001) is also named Kannangara



Reforms as an unfinished task. While saluting Dr. Kannagara for his massive heroic contribution made 70 years ago we need to understand that a nation cannot keep implementing the same recommendation of 1943. After 70 years of its successful implementation of free education policy by all past governments, today Sri Lanka is one of the best performing nations in the world in education and health. The UNDP Human Development Report of 2015 places Sri Lanka in the 73rd position with a Human Development

Index (HDI) of 0.757 amongst 188 countries, The World Human Development Report – 2004 placed Sri Lanka in the 96th position amongst 177 nations, with HDI of 0.74. Sri Lanka stands above all South Asian Countries (India, Bangladesh, Bhutan, Nepal, Pakistan, Afghanistan and Maldives) as well as above many South East Asian nations (Thailand, China, Indonesia, Philippines, Vietnam, and Myanmar et al.).

INDICATOR	1940	1960	1980	2003/4	2014
Population Million	6.2	9.8	14.7	19.2	20.5
Literacy	40%	72%	88%	93%	96%
Life Expectancy	42	61	69	74	75
Infant Mortality per '000 live births	141	68	34	17	15
Birth Ratio per '000	38.4	36.6	28.4	18	17
Death Ratio per '000	20.3	8.6	6.2	6	6
Population Growth Rate	3.2%	2.8%	2.1%	1.3	0.8
% No Schooling	68%	26%	15%	8%	<1%
% With Secondary Education	11	27	42	59	85 ²
% of population between 0 – 18yrs	60	52	45	34	33.3
% Employed in Agriculture Sector	55	53	51	33	31
% Unemployed in Labour Force		16.6	24	9	4.4
Per Capita Income US\$	na	187 (1970)	540	997	3280 (2013)

Beside these the **Table 1** data illustrates the socioeconomic and education parameters of Sri Lanka since 1940. The **Figure 1** illustrates three important indicators and how these three indicators have behaved since 1940. In 1940 only 32% of our children were in school or 68% of the students were out of school. The blue-line shows since 1944 how the unschooling line dropped and by 2014 the unschooling

² Number passed GCE OL and above is 69%

percentage is just 02%, this is very likely the severely disabled children; all others are in schools. While the blue line dropping to lowest levels below the green-line, the rate of literacy is climbing from 40% in 1940 to 96% by 2014. The red-line (middle line) is the line that indicates the percentage completing Secondary Education with GCE O/L. Only 11% were in Secondary schools in 1940. By 2014, repeating GCE OL many times by some, eventually nearly 70% of the cohort completes GCE O/L education.

Dr. Kannangara’s agenda had targets; 80% for practical schools, 15% for Secondary and 5% for Senior Secondary.

Today 40% enters GCE A/L or Senior Secondary, 98.5% completes Primary education, 90% completes Grade 9 (the compulsory education), and 85% sits for GCE O/L and 64% who appears for the first-time pass GCE O/L, and 70% completes O/L in 2nd and 3rd sittings. These clearly indicate with gratitude that Kannangara agenda has been successfully accomplished. The literacy level is 96.5%. Moreover, we are hopeful of a society with over 90% will complete Grade 11 by 2020. These are no easy achievements for any nation.

I wish to illustrate the progress that Sri Lanka has achieved over the last seventy years as a preamble for the way forward for current educational reforms.

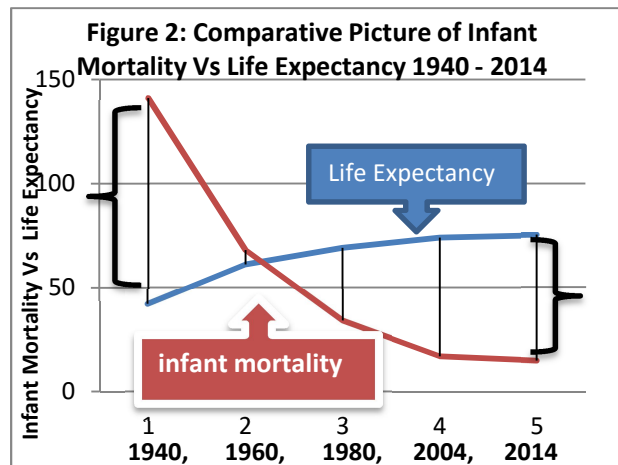
Socioeconomic Achievements since 1944:

Despite spending on the civil war, Sri Lanka has graduated to the status of a Middle Income country. We are no more a Low Income Economy. Our per capita income reached \$1000 by 2005; and the US\$3785 in year 2014 (Central Bank 2015)..

Table 1 shows the significant developments that Sri Lanka has achieved in the last seven decades. All governments irrespective of the political party governed the country have contributed to the success that Sri Lanka has achieved. When most of the countries are under the threat of HIV/AIDS we are not threatened by such diseases.

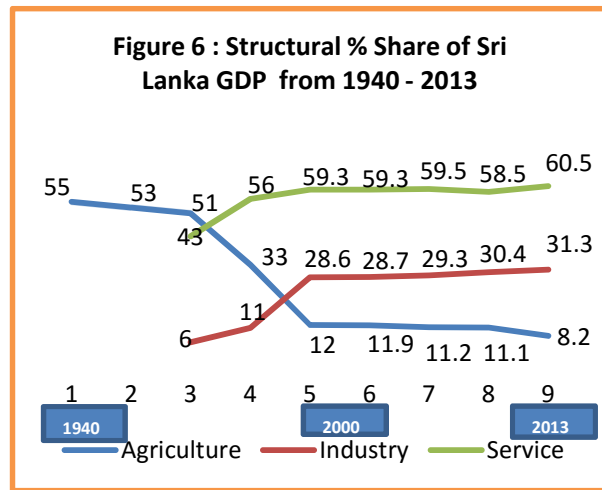
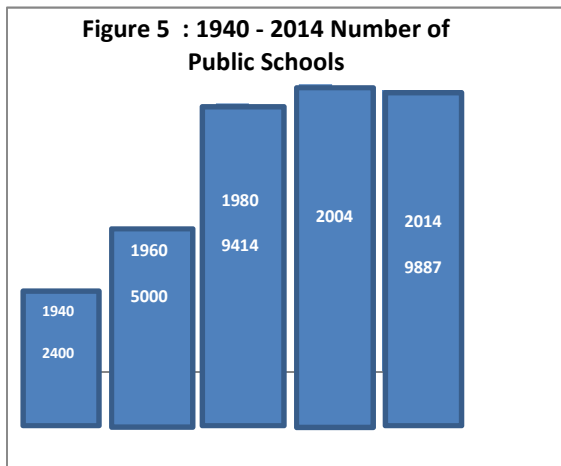
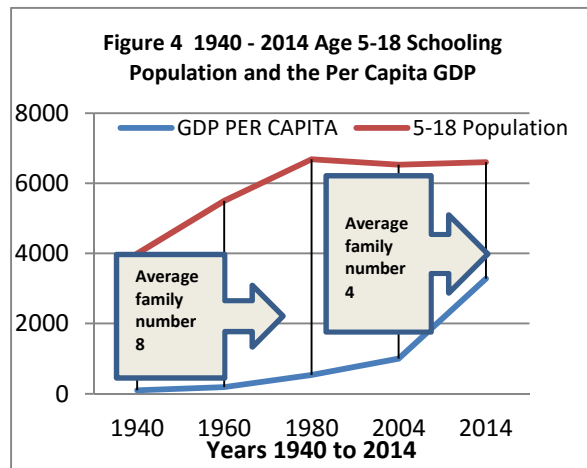
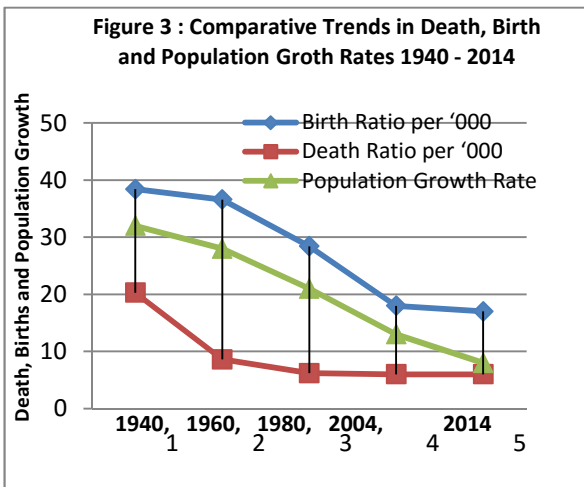
Demographic Parameters:

Figure 2 and Figure 3 illustrate very critical health indicators for a nation. In 1940s many died at birth. The life expectancy was only 40-years; meaning at the time of birth average age a person live was



estimated as 40 years. By 2014 the life expectancy at birth has reached 75.4 years for men and 79.5 years for women which is on par with most of the developing countries and is the highest level recorded by any of the Middle Income countries. The population growth is near freezing with 0.8% growth one can be hopeful of zero growth by 2020.

In 1930s men and women were suffering from infertility due to repeated malaria attacks. Figure 3



shows the women and infant death rates were alarming and life expectancy was as low as 40years. Infant and maternal deaths and child disabilities were high.

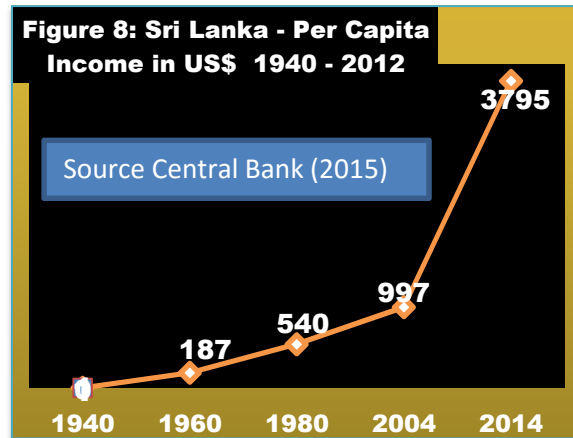
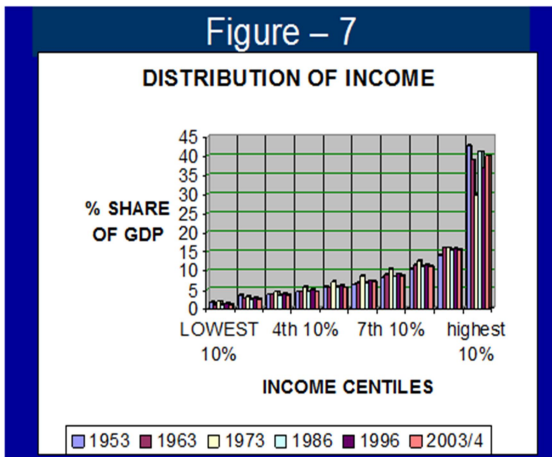
Figure 4 illustrates in 1950 to 1970 though the death rate was going down, the birth rates were high and there was a population explosion and average family size was near 08 persons (with 5 children). Today the crude birth rate and death rate are down and in par with most of the developed countries such as United States and New Zealand. Population growth rate is below one (0.8) and by year 2020 it is expected to be around zero population growth. Today the average family size is 4 (with 02 children).

In 1960s government had to build more schools to accommodate the growing population (see **Figure 5**) and during the period 1960-65 alone over 5000 schools were built. Today the actual number of schooling aged children is on the decline and there are too many schools. Today Sri Lanka has 9887 schools and number of schools has dropped from 10,093, by 206, due to decrease of student numbers or due to non-viability.

The **Figure 6** illustrates that in the 1940s agriculture sector was the most predominant employment sector; over 50% of GDP was from agriculture sector. That is a symptom of a primary economy. With the gradual expansion of education due to 1944 reforms education and social up-liftment happened; by year

2014 the agriculture sector employment rate is dropped to 08%, and Service Sector and Production sectors jointly has taken 92% of the employed. The Kannanagra reforms have contributed to a total shift in the economic structure.

Table 1 illustrates that over the decades how the unemployment has significantly dropped from 20% in 1980s to 4.5% by 2015. Dependency rates have dropped. However, unemployment amongst the 18 – 25 age groups is high as 25% and this remain the critical issue to be dealt in educational reforms. According to the recent statistics over 500 leave for foreign employment daily, which is higher than the number



provided with new employment in country. While the per capita GDP increasing the population growth rates declining. Smaller families with increased incomes are seen in the last five decades (See **Figure 7** and **Figure 8**). The bottom line of the discussion is that our socioeconomic conditions have significantly improved and sustained over the last few decades. Moreover, the individual monthly income as well as the number employed in a given house hold has significantly increased. The incomes of everyone, including the poorest household has significantly increased.

Today's educational reforms have to seriously take note of these socioeconomic changes. The same system of education that we have had for the 20th century will not serve the nation and particularly the youth. The educational policies need drastic changes.

The bottom line of the discussion is that our socioeconomic conditions have been significantly improved and sustained over the last few decades. Moreover, the individual monthly income as well as the number employed in a given house- hold has significantly increased. The incomes of everyone, including the poorest households has significantly increased. The graphical illustrations in the rest of this paper show these trends.

Economic Disparities:

Distribution of Gross National Income

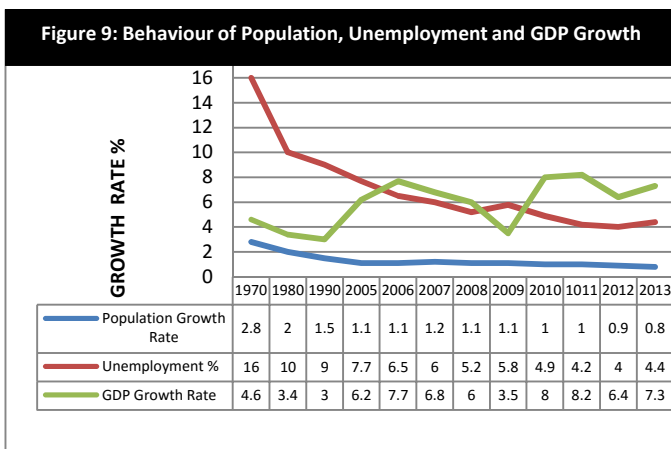
However, it is also important to note some of the negative trends in the recent years in this domain.

Table : 2
INCOME DISTRIBUTION IN SRI LANKA
2013 (Source: Central Bank 2014)

Highest 20%	54.1
Middle	41.4
Lowest 20%	4.5
Gini Coefficient (Households)	0.49
Gini Coefficient (per Person)	0.49
Gini Coefficient (Income Receivers)	0.55

Although the Per Capita GDP has increased the disparity in the distribution of incomes has not decreased. **Figure 9** and the **Table 2** present the disparity in the distribution of incomes. The lowest income earning 20% of the population, amounting to 4million people, live on 04.5% of the national income, as the GNI being Rs.10,052 billion (2013), meaning the per capita annual income of the lowest 20% averages to annual income of Rs.114,000/ or a monthly income of Rs.9,500/, while the highest 20% of the people earning a per capita annual

income of Rs1,357,000 or a monthly income of Rs.113,000. This means the highest income earning 20% earns more than 12 times the lowest 20% of the people. The monthly income of a person in the top 20% is higher than the annual income of a person in the lowest 20%. This is the average income of a person and a family with 4 person in the lowest 20% of population has an income of Rs.38,000/ a month; whereas the highest 20% with 4 persons in the family gets an average income of Rs.540,000/ a month. The rest of the 60% in



the middle gets an income in between these estimates. The Gini coefficient being 0.5 also indicates the wide disparity in the distribution of incomes.

Provincial Income Disparities:

The disparities are also evident across the provinces, districts, and communities. Regional income inequality has been increasing in Sri Lanka during the past few decades. The Western Province of Sri Lanka represented 5.7 percent of the total land area and 28 percent of the total population but the Western Province contribution to the Gross Domestic Product (GDP) increased from 43 percent in 1996 to almost 50 percent in 2005. Meanwhile, contribution made by three other provinces together, namely Sabaragamuwa, Central, and Uva to the total GDP decreased from 24 percent to 19 percent. The Western Province alone contributed to 2/3 of the services sector in Sri Lanka. According to various sources, the Western Province of Sri Lanka represents lion's share not only in production but also in economic growth rate, aggregate consumption, investment, employment, industrial production,

infrastructure availability, energy consumption, etc. (Karunaratne 2007, Karunaratne 2002). Karunartane illustrates that 47% of the employment is in the Western Province and certain provinces got a very low share of the expansion of the service sector employment opportunities. However, Karunaratne also make a strong point that the poverty levels taking the international One Dollar a day criteria only 6% of the Sri Lanka population is below poverty level. However, the income disparities have to be addresses and a safety net for the poor is essential.

GDP Share of Education:

Another observation is that the GDP share for education has decreased over the last few years. Sri Lanka was the first nation amongst the developing nations to allocate 3.5% of GDP to education in 1973 with the education reforms for quality improvement in education. It has now dropped to 2.2%. Same is the case with all investment expenditures other the recurrent expenditure. This situation in the past was largely due to the expenditure on war. Yet, it is a fact that public investment has decreased since 2001. An attempt must be made to increase the share at least to the level of 3.5%. The World Bank recommends 4% - (Source: Please note all graphs are based on Central Bank of Sri Lanka Statistics).

Educational Issues of Today:

Although the system of education has demonstrated high internal efficiency with fewer dropouts, grade repeaters and high completion rates, the system suffer from several serious issues and low external efficiency (employability of the graduating cohorts). Some of the predominant features of our formal education system are discussed in brief here to facilitate the reader to understand the 21st century reforms context.

Heavy Examination Orientation:

Heavy examination orientation has brought adverse effects on the total development of the student. Over all development of student personality is seriously neglect or ignored by students and parents as students forgo all other co-curricular activities, social activities at school, home and community to attend coaching classes. Examination has created an unhealthy out-of-school coaching culture that has devalued the school and education. Sri Lanka having achieved a very high degree of success in enrollment and completion of general education at different phases of education, public examinations receives too much attention of student, parents and school. **This is an area that Sri Lanka has gone against the Kannangara reforms. In Kannangara Reforms it was said to localize examinations.** Despite of many efforts by NIE and MOE, the Department of Examination has been successfully denied the localization. The introduction of School based Assessment (SBA), rather than improving SBA to gain validity and reliability, the Department of Examination discarded its value and further centralized examinations opposing the Kannangara reforms agenda. This certainly remains an unfinished task.

Heavy Academic Orientation:

Further, examinations are loaded with cognitive material and the school system has failed to realize its broad goals and objectives. The academic education and paper-pencil examination system and poor quality of examination questions make the student to a culture of rote memorization. A student spends

time to read and understand subject content neither develop any life skills nor the application of knowledge to solve problems. The learning is passive and often confined to a learning culture within a classroom. Entire examination system has cultivated and strengthened the testing of academic content.

Educational Process and Low Order Thinking:

The Anderson (2001) taxonomy clearly demonstrate that knowledge and understanding (Comprehension in Bloom's Taxonomy), are Lower Order Thinking (LOT) abilities. The Higher Order Thinking (HOT) abilities such as Analysis, Evaluation and Creativity are not given the necessary emphasis in school and classroom instructional processes and more over in the school tests and public examinations. Recent MSc studies, 09 MSc thesis projects, done at Post Graduate Institute of Science (PGIS) with the author has very clearly demonstrated that GCE OL examination papers in science has very little HOT abilities tested. The instructional systems are totally examination oriented and hardly there is instructional practices those cultivate authenticity, practice, and learning of skills. The result of this is we have educated youth who are with no generic skills, values and adoptability.

Stereotype Graduates:

The system of education is too stereo-type. The education process is so homogeneous with one set of textbook, a common set of school subjects, classroom based teaching, and teacher centered learning process. There is very little space for a student to pursue his or interests. Child's ability is only seen through the paper-pencil examinations. There is very little learner centered learning. Child is always compared against the other students and no real value is added to an individual. These conventional teaching and conventional school curriculum and instruction provide stereotype graduates with no skills.

21st Century Educational Expectations:

If Dr. Kannangara is given the task of addressing today's education sector issues, will he come up with the same recommendation that he made in 1943? We all know that he will not because he would have considered today's context of reforms.

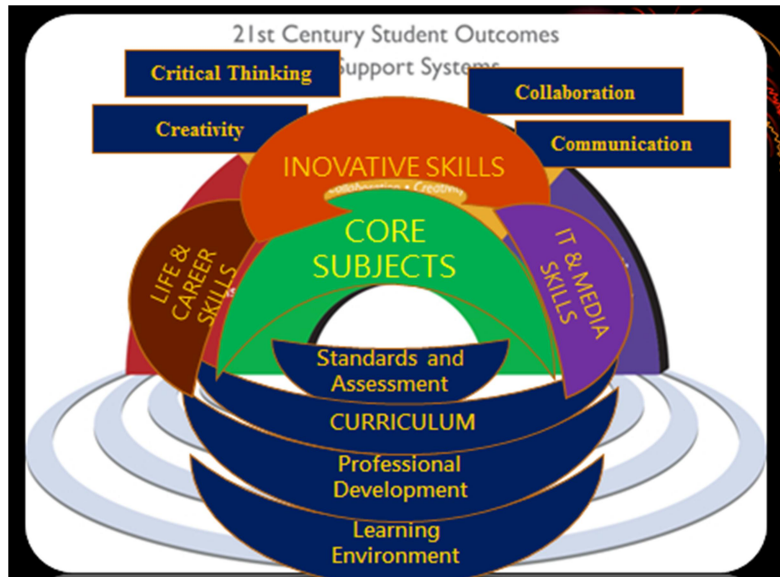
The socioeconomic context of today is very different from what it was in 1940s. My attempt from this point onwards is to address concerns for the way forward for educational reforms.

Education and Change:

Education is the most powerful tool of change. Education gives an individual the capacity to adapt to change. Education can prepare people for change. Education can initiate change. Building awareness of the self, society and human welfare more and more rests upon education. Education is considered the best strategy of initiating, achieving, and sustaining progress and development. Moreover, education can mitigate disparities in society amongst people. Education is a powerful tool in conflict resolution. In short education is the most powerful tool of bringing in any change and sustaining it.

Not everyone welcomes reforms and change. Not everyone aspires to set targets and reach targets. Not everyone is futuristic. Envisioning is a hypothetical situation. No doubt that there are risks. All reforms are not supported by all. One should always expect opposition in the cause of introducing

changes and reforms. Do not forget that Dr. Kannangara after 16 years of dedicated service to education sector was defeated at the first elections after independence.



Preparing the younger generation to face the rapidly changing global surroundings is the challenge that education is faced with. It is not a matter of bringing new knowledge to the school curriculum. Shaping up of the total personality of the child to face the future challenges is becoming increasingly more important. The challenge today is to facilitate the development of full-potential of each and every individual learner for the benefit of that individual and the

larger society. The more we delay reforms the more will our children be kept away from the rapidly changing socioeconomic arena and they will miss opportunities.

The reformists should understand this hypothetical premise better than the common citizens because it is the task of the professionals to analyze trends and do the envisioning of education. Education will become the most powerful tool under the new wave because general education will not be sufficient to face the emerging challenges. This demands more intellectual skills than knowledge.

The 21st Century Learning Framework:

The 21st century learning framework came into light in USA with the dawning of the new millennium, and already 16 years of the 21st century is gone, yet Sri Lanka has not seriously look at the framework. The Canadians have adopted it and call it the 'Shifting Minds'³. Almost all developed countries have adopted the framework as the main working document of educational reforms. The **Figure 10** presents the framework.

The 21st century learning framework (P21Century Learning Framework⁴) looks at 'Learning Outcomes' as skills. The core-subjects that we generally offer in school curriculum need to be strongly linked with Standards and Assessment, not examinations. Assessment is much needed, but not the tests and examinations in the conventional sense. The Assessment and Standards are for learning, as a formative process of helping the learner achieves what is expected as learning outcomes. To enable the learning process need "Professional Development" as to facilitate learning and create the 'Learning Environment' to ensure the type of learning outcomes expected by the framework. These learning outcomes are identified in three clusters:

³ Shifting Minds 3.0 - C21 Canada, Shifting Minds 3.0: Redefining the Learning Landscape in Canada www.c21canada.org/wp-content/uploads/2015/05/C21-ShiftingMinds-3.pdf.

⁴ <http://www.mabankisd.net/upload/page/0075/Framework%20for%2021st%20Century%20Learning.pdf>

- Life and Career Skills
- Information Technology and Media skills
- The 4Cs – **Critical Thinking Skills, Communication Skills, Collaborative Skills and Creativity**

This means all content that we identify for learning and presented for learning must relate to life skills and career skills. All subject matter needs to use IT and Media skills; all subject matter learning ensures a learning process that facilitates critical thinking skills, collaborative skills, communication skills and creativity. In the Sri Lankan schools unfortunately the teacher and the learning environment belongs the 20th century thinking. Teacher centered, classroom based teaching has to be replaced with child centered, out of classroom, out of school learning culture.

Human Capital and Knowledge Economy:

The 21st Century is into a knowledge economy. The knowledge economy demand human capital than knowledge. Oppose to ‘human resource development’ in the 20th century thinking particularly in the 1980s. **Human capital** means the general skills level of the labor as an investment. Formal schools have to address this - Lucas (1988), Sedere (2010). Sedere (2010) further stated that the transformation of educational institutions by changing the instructional methodology creating more space for information technology based learning and giving more space for creative learning and totally shifting from examinations to assessment systems.

These new developments in the field of education cannot be delayed for our children. Just the way free education and vernacular media and cultural revival was needed in a growing socialist world to establish the ‘Nation States’ and ‘National Citizenship’ in the 1940 – 60; today we are faced with the challenge of initiating and facilitating an educational reforms process to lift our children to share the ‘Global Village’ to become ‘Global Citizens’. Global trends are sweeping across the globe. Socialist ideology spread fast in 1940 – 70s. Democratization is now sweeping across the globe and socialist ideology has lost its place. Even the Red China has embraced globalization. Just the way the Industrial Revolution spread to all corners of the globe, globalization will continue to spread and the boundaries of all nations will continue to disappear making the globe a common place to share. The challenge is for us to bring about change, striking a balance without destabilizing our national identity. We need to produce a global citizen with Sri Lankan identity to successfully reap the benefits of the emerging world.

Generic Skills:

Generic skills are the transferable skills that the learner acquires. These skills are the critical skills those facilitate adaptation to different situations in life, in career, workplace and in society. Today, all countries where 21st Century Learning Framework has been adapted have framed school curricular and syllabi with Generic Skills. Communication skills, Collaborative skills, Critical Thinking Skills, Creativity are generic skills those can be learnt or mastered from any core-subject if the instructional methodology facilitates the enhancement of these skills. This can be clearly seen in the school curriculum in all most all States in North America (USA & Canada), Australia, New Zealand, Finland, Scandinavia, and South Korea. Sri Lanka continues to remain with academic content loaded examination oriented academic education system where generic skills are not given much attention or very little place.

Emotional Intelligence and the Soft Skills:

In the 20th century a person's human abilities was largely accounted to the level of intelligence or the Intelligence Quotient (IQ) of the learner. In the 20th century, high achievement was correlated with IQ. However, in the last decade of the 20th century, in 1990s, many research studies challenged the IQ dominance. There were many studies those demonstrated the success of a person's life - personal life, career life, social life etc. does not necessarily depend on IQ only, but more on the emotional quality of the person. The theory of Emotional Intelligence (EI) came up and several key personalities advocates were J. D. Mayer, D. R. Caruso, P. Salovey, (1999) and Daniel Goleman (1998). They advocated with evidence that Emotional Quotient (EQ) is more important for success in life and career than IQ.

The soft skills are another important advocacy, very much link with EQ. The soft skills are for interpersonal relations. These are people's skills. Listen skills, speaking skills, understanding the feelings of others, empathy, ability to share and work together are the main soft skills. Today these skills are very much needed in the use of digital media as well. The emotional control is seen in the communications. These need to be cultivated through the learning process in school. Hardly these skills are given any importance in formal school or higher learning institutions.

Development of Skills:

The efforts in the last six decades were more on increasing the 'internal efficiency' of the system by ensuring all schooling aged children are enrolled, retained and graduated within the set time frames for each level. Although there are internal efficiency issues yet to be resolved, Sri Lanka's top priority for today is to address '**external efficiency**' issues to ensure employability of the graduate. This means how well the education system could be knitted with the growing global economy to ensure employability of the graduates at different stages of the education cycle. This is a realistic objective to address because nearly 30% of our school leavers remain unemployed for some time before get to employment. This will also address the youth unrest to a larger extent and contribute towards social stability. This can be done only by enhancing skills of each and every learner. Vooget and Roblin (2010⁵) reviewed all 21st century skills and raised the following questions and are the valid questions that our education system needs to address. The main motive for this approach is to empower young people for the change from an industrial society into a knowledge society - (De Bruijn (2014⁶)). However Bruijn's position is that most of these skills were there and nothing new.

- How to integrate skills and competencies to the formal school curriculum?
- What does the implementation of the 21st century skills demands from the teachers, students, educational administrators?
- How can different educational contexts, outside the formal school support the acquisition of skills?
- How ICT could contribute to bridge formal and informal learning of skills?

⁵ Vooget J and Roblin N. P. (2010): 21st Century Skills, Kennisnet, University of Twente, Netherlands; http://archieff.kennisnet.nl/fileadmin/contentelementen/kennisnet/Bestanden_Feddo/21st-Century-Skills.pdf

⁶ De Bruijn Stephanus M. (2014); Proceedings of the Third International Conference on Argumentation and Rhetoric, Sept. 4, 2014, Partium Press, Oradea

- What specific types of support the schools would be required to facilitate skills enhancement?
- What changes to be introduced in the assessment of learner achievement and acquisition of skills?
- What changes to be introduced to national examinations to incorporate skills?

In my professional opinion, formal education needs to enhance the “Generic Skills’, ‘IT and Media Skills’ and ‘Creativity’ in learner. The generic skills prepare the student with transferable skills to any vocation. There are two major issues need to addressed in enhancing those three types of skills (Generic, IT and Creativity) those facilitate employability through formal general school education. Formal school systems are largely following academic education, paper-pencil examinations and classroom based teacher centered teaching as discussed earlier in this paper and published work earlier (Sedere et al; 2014⁷).

1. How the formal school curriculum is to be reformed from ‘Content and Academic Oriented Curriculum’ to a ‘Skills Oriented Curriculum’?
2. How could the teacher, the school and classroom, and the teacher and the teacher centered instructional system; the learning environment, be transformed to support the 21st century skills learning?

Skills Oriented Curriculum:

Skills oriented curriculum is usually found in the Vocational and Technical Education (VTE). However, the VTE is directly training to perform specific jobs and prepare the graduates to be employed in a specialized area. If anyone thinks that all formal schools have to be converted to Vocational Training Institutions that is not correct.

Employer in the 21st century demands employable generic skills and personality qualities. This demand is not only in Sri Lanka even in the United States a special commission had to address this issue in 1990s. In the United States the Secretary Commission on Achieving Necessary Skills appointed by US Secretary of Labor has identified what work requires of schools (1991). SCANS skills have been embraced by both education and business leaders. SCANS has a powerful vision of how fundamental changes in the school curriculum, instruction and organization can create an educational system that solidly prepares young people for further education and employment (SCANS 2000, 1997). The SCANS classification of skills can be read on Internet -Web Site. The SCANS report stated that “Our primary message to schools is to look beyond the schoolhouse to the role students will play when they leave to become workers, parents and citizens. Our message to teachers is to look beyond your discipline and your classroom to the other courses your students take, to your community, and to lives of your students outside school..... Our message to employers is to look outside your company and change your view of your responsibility for human resource development.”- (SCANS Principles, 1997). This statement holds true for our own context as well.

⁷ Sedere M. U, et al: Study on Evaluation and the Assessment System in General Education in Sri Lanka (2014) Research Series #3, National Education Commission, Sri Lanka

The Generic Skills Are Transferable Skills

Skills are not the academic competencies as was spelled out in the 5E method that was advocated in Sri Lanka Science Curriculum. Of course the 5E was a good beginning to apply constructivist theory of exploration and definitely a progressive step towards the acquisition of skills. It was poorly practiced in our schools. Skills-based learning provides classroom environments where independence, thinking skills, collaboration and active learning are developed at the same time as knowledge is acquired. Mike Fleetham states that ...“There is a very small yet very significant change in mindset needed if you want to be a skills-based educator. Traditionally we teachers look at our knowledge curricula then choose activities we think will best pass on that knowledge, the activities happen to require certain skills.” – (Fleetham⁸).

I suggest everyone to look at the curriculum reforms in New Zealand, Finland and some of the States of the USA to understand how skills are brought into the curriculum. The Finland reforms states in brief as follows:

The core of change in this world, our doing, knowing and being had changed (Pirjo Ståhle, 2009⁹).

- Doing – all important and most influential outcomes are produced by cooperation and networks.
- Knowing – more and more decentralized both technically and socially.
- Being – our identity is hard-pressed in a world of constant change and global information flows

The Finland Board of Education¹⁰ states:

- Pupils are entitled to at least one integrative, multidisciplinary learning module every school year
- Learning modules integrate skills and knowledge of various school subjects, teachers work together
- Pupils participate in the planning of these modules
- Goals, content and ways of working are planned and decided at the local level
- They should be interesting and meaningful from the pupils’ point of view
- They realize the principles of the school culture
- They promote the development of transversal competences

We need to identify the various skills a student has to develop to be a beneficiary of the global economy. It is said that low quality general education constrains the trainability, adaptability and productivity of the workforce. This is particularly true for social skills and emotional skills. These skills and qualities are not easy to change once they have taken root at an early stage of life. Learning a living will help educators in their efforts to transform schools into places where students are empowered and

⁸ Fleetham Mike : Key Ideas About Skills Based Learning:

<http://www.thinkingclassroom.co.uk/ThinkingClassroom/SkillsBasedLearning.aspx>

⁹ Pirjo Ståhle, Mauri Grönroos and Werner Soderstrom Osakeyhtio, 2009, Dynamic Intellectual Capital: Knowledge Management in Theory and Practice

¹⁰ http://www.dge.mec.pt/sites/default/files/Noticias_Imagens/1_curriculum_in_finland.pdf

prepared for success. There are many studies where the type of skills required by the global economy is analyzed.

There are generic skills, operational skills, intellectual skills, communication skills, social skills, technological skills, economic skills, emotional skills and many other skills which need to be developed at school level. These demands need to be embodied into the general education that we offer. The translation of knowledge to skills is the challenge that we face today. I have spelled out many of these skills in my earlier publications (Sedere 2000). The Activity Based primary school curriculum needs to be further strengthened and expanded to other levels. The global economy demands a dynamic personality. Adoptability, neuromuscular coordination, democratic behavior, commitment to family and work, effective personal relations, community participatory skills, emotional stability, courteous behavior, manners and many other personality traits to cultivated at very early in every child to enable them to achieve success in their future world (Sedere 2000). Our teachers are attuned to impart knowledge and they need training and mentoring to be effective teachers to cultivate these new skills and qualities.

Beside these the 21st century skills need IT and Media skills. IT can be taught as a standalone course as our schools do today. But it should be practices as a tool of learning. IT and media skills can be easily built into learning. IT can be embodied into the Junior School curriculum and this must be done at all tertiary education institutions.

Instructional System and Assessment System Reforms:

Though the curriculum reforms introduce skills based learning, the most important reform is the reform in the present practice of education at school level. The top priorities for change are the reforming the learning environment; the professional training of all educators to the new wave of authentic instruction and assessment. The teacher centered, classroom based learning environment cannot cultivate generic skills.

Authentic Instruction and Assessment Systems are already in practice in many countries. The Authentic Assessment Toolbox by Muller (2010¹¹) is widely used by teachers. Under my supervision 09 MSc dissertation projects were done in four different school subjects – Math, Physics, Biology and Chemistry at Junior Secondary Level - at the Post Graduate Institute of Science (PGIS) at University of Peradeniya and distinctly these 09 studies shows how skills are enhanced and significantly better learning achievement is achieved by children. These were done using the same time allocation in school time table and instruction system empowered the learner to find, explore individually and in groups. Learning environment and school environment need to be changed from the classroom learning culture to activity based, skills oriented, learner driven learning systems replacing the word teaching by learning.

Present tests and examinations culture that is enrooted in our education system destroys the reforms as finally teachers and students teach for the tests and examinations. This can be stopped only by reducing the value of public examination and replacing the examinations by assessment at school level and giving

¹¹ <http://jfmueller.faculty.noctrl.edu/toolbox/>

the higher value to localized assessment system. Assessment need to be performance oriented, authenticated performance for real life situations. This cannot be done through the paper-pen examinations and term tests as now given the top most priority.

Creativity as a Learning Outcome:

Creativity is a lasting mind-set that motivate individual to innovate and invent. Present system of teacher centered education is a listening process and a passive learning system. The recent brain research in USA has shown even in an active good teacher centered lesson a child does not have to use even 50% of the brain for learning. Slow learning happens in passive environments. Teachers and examinations believe that there is only explicit knowledge -- the explained knowledge -- in the world. The Knowledge Economy and creativity place '**Implicit Knowledge**' or the '**Tacit Knowledge**' as the most important learning outcome and the examinations cannot assess these simply as there are no correct answers in tacit knowledge or implicit knowledge. It is the learning process where learner is empowered to seek new knowledge, new ways of doing things. This '**Tacility**' in learner and learning context is what brings about creativity and the thirst for investigation, learning, desire and high motivation to explore, find, experiment etc. become an innovator and inventor. This should be the learning culture in all schools, all urban and rural, from primary to higher education at all levels (Sedere 2014¹²).

There are several bottlenecks those obstruct change. The conventional examinations, conventional policy makers, conventional teacher becomes the bottlenecks in this operations. There should be collective understanding why and how we adapt positive change to empower the learner to become a full partner of the learning process to join the 21st Century as a skilled graduate at primary, secondary and tertiary levels.

While saluting the father of free education, I pledge the present authorities to go beyond the conventional practices for our youth to become the type of human capital to reap the benefits of the global knowledge economy.

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