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Understanding Latin America's Educational Orientations: Evidence from 14 Nations

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Abstract

Latin American countries have evolved over the years. Still, after years of military reign, socioeconomic-instability, and civil wars, the region has been known for its anti-hegemonic economic growth (educational-policies) strategies. Central and South America's educational system has long been under investigation by researchers both theoretically and empirically. The transition of its education system through the introduction of centralized, liberalized, and populist ideology has sparked many researchers' interest. This paper aims to understand and compare 14 Latin American countries' education orientation. The study uses a matrix table to visualize the qualitative finding.

Keywords: Human Capital, Latin America, Educational Orientation, Neocolonialism, Contractarianism

Introduction

Most Latin American and Caribbean Countries (LAC) are exposed to some of the world's ills and inhumane conditions (Aman & Ireland, 2015). This paper contributes to the existing literature on the socio-economic, political, and educational transition in Latin America. The study presents descriptive-statistics of our Selected Latin American Countries (SLACs). Such as the educational policies that have moved SLACs forward, identifying their differences and similarities, and proposing recommendations for some of the SLACs to improve their nations' human capital.

The concept of human capital emerged from the recognition that the investment in human capital by an individual, firm, or country has an increasing return to scale on productivity. Human capital can be split into three concepts: talent (natural-given ability), acquired qualifications, and expertise. The term human capital was first used in the late '50s and early '60s (Holden & Biddle, 2017). Before the '50s and '60s, the word was a suggestive phrase in the field of economics and played no role in the decision-making algorithm when it came to recommending, passing, and implementing educational policies. Upon empirical and practical evidence that there was a high return on

quality education and it helped promote a country's national goals, new ideas on public spending on education as a form of domestic investment was advocated by academics, policymakers, and economic development practitioners.

Understanding Human Capital

Human capital is labor used to produce other goods and services. Schultz (1961) defined human capital as a value used for measuring human potential. Smith (1776) stated that "the improvement to human capital through training, education, and experience make the individual enterprise more profitable, but also add to the collective wealth of the nation." While Osiobe (2020) defined human capital to be education and training (formal, informal, and culture); knowledge; labor; skills (general, industry, firm, job, and task-specific); experience. Human capital is the collective wealth of a nation in terms of judgment, skills, training, knowledge, expertise, and talent for a population ((Schultz, 1963), (Schultz, 1961), and (Osiobe, 2020)).

In a standard growth economic model (Romer, 1989), (Solow, 1956), and (Mankiw et al., 1992), the accumulation of human capital is a private and public investment undertaken to promote economic growth and development. The principle of opportunity cost is implemented in the model where the individual gives up some proportion of income during the period of education and training in return for increased future earnings. Hence, an individual will only undergo additional schooling or training if the future reward (return on education) is higher than the instant gratification.

Figure 1: Latin America



Author's creation (Google Earth, 2019)

*Grey countries are the selected countries for the study

Table 1: Economic Indicators used in Figure 2 & 3

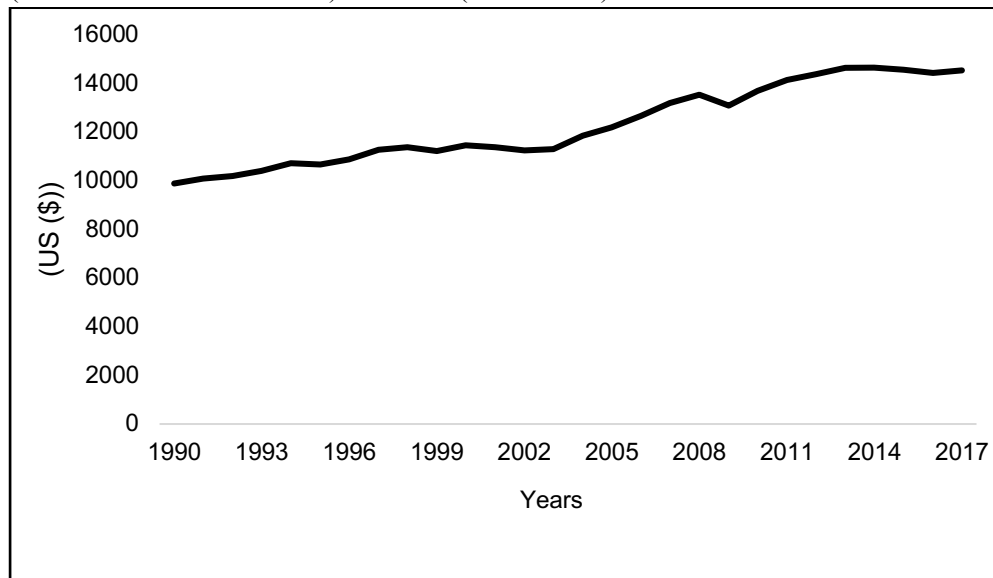
	Meaning
$RGDP_{ppp}$	Real gross domestic product purchasing-power-parity is gross domestic product adjusted for inflation or deflation and converted to international dollars using the purchasing-power-parity rate.
$T\%GDP$	Trade as a percentage of gross domestic product is the total sum of exports and imports of goods and services measured as a share of the gross domestic product.
ATE	Access to electricity is the percentage of the population with access to power in a region. But ATE does not imply a steady or constant supply of the service.
TSE	Tertiary school enrollment is the gross enrollment ratio of the nation's total enrollment ($TSE, SSE, and PSE$) of students into a tertiary institution, regardless of age, to the population of the age group that officially corresponds to the level of education.
SSE	Secondary school enrollment is the gross enrollment ratio of the nation's total enrollment ($TSE, SSE, and PSE$) of students into a secondary institution, regardless of age, to the population of the age group that officially corresponds to the level of education.
PSE	Primary school enrollment is the gross enrollment ratio of the nation's total enrollment ($TSE, SSE, and PSE$) of students into a primary institution, regardless of age, to the population of the age group that officially corresponds to the level of education.

Source: (World Development Index (WDI), 2019)

In the last decades, LACs have achieved remarkable social and economic success. The middle-class population in the LACs has grown to historic levels; the poverty rate is reduced by almost half; access to education, electricity, and health care has expanded at moderate levels; property rights are enforced. As a result, most countries in the LACs region have now achieved emerging market status, but according to (Sanguinetti 2016), more work is needed.

If a country intends to move to a path of sustained and inclusive economic growth for its members, it will have to address some of the fundamental socio-economic challenges—beginning with but not limited to the lack of high-quality human capital. The potential of youths in LACs is immeasurable, and youths' are defined as people within the ages 15–29 years, which account for more than 163 Million (Mn.) persons in the LACs region as of 2017 (OECD et al. 2016). In the LACs, 18% of the youth population, are in the labor force while the remaining 82% are not in the working class and not engaged in education or training (NEET), an acronym coined by the (OECD et al. 2016). The statistic is most prevalent among the disadvantaged group, meaning those who are classified as NEET. Low-skilled human capital makes productivity growth difficult in any economy; hence, an inclusive human capital and entrepreneurship approach with sustainable and applicable instruments to the specific needs of a country will increase productivity and equity in the region.

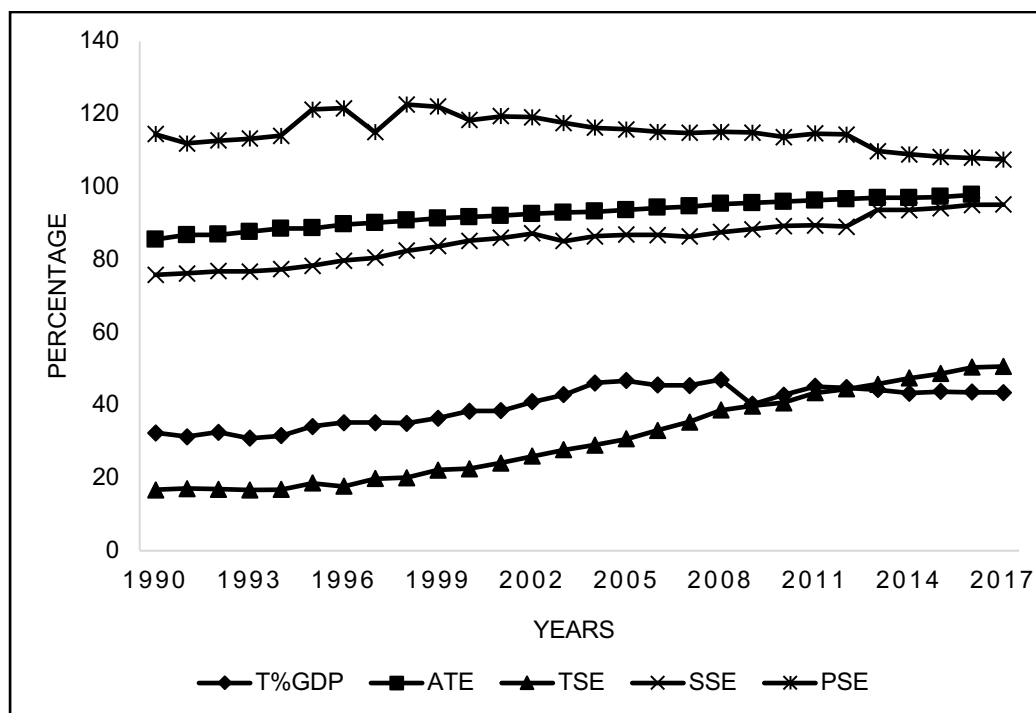
Figure 2: Gross Domestic Product per capita purchasing-power-parity ($GDP_{per\ capita_{ppp}}$) (constant 2011 international \$) of SLACs (1990 – 2017)



Source: (WDI, 2019)
 Author's creation

If the SLACs are to compete effectively with the rest of the world, the region must urgently remedy itself by raising its human capital or Human Development Index (*HDI*). Figure 2 shows that our SLACs $GDP_{per\ capita_{ppp}}$ has been rising since the 1990s. Although the $GDP_{per\ capita_{ppp}}$ in these nations has been increasing, human capital has not. One primary reason Latin American workers lack the right skills is the lack of access to quality education: less than half of the youth population in the region graduate from a tertiary institution, while the rest are in the NEET group.

Figure 3: Economic Indicators of our SLACs



Source: (WDI, 2019)
 Author's creation

Figure 3 shows that our SLACs have *ATE* with a mean of 92% of the population and a range of 12%. The enrollment rate in these countries varied from *TSE*, *SSE*, and *PSE* schools, where *TSE* has a mean of 30%, *SSE* 85%, and *PSE* 115% with a range of 33%, 19%, and 15%, respectively. The result implies that there is a vast disparity between *TSS*, *SSE*, and *PSE*. Meanwhile, *T%GDP* in Latin America has had an upward trend since the '90s, which implies that the region is becoming more open and business-friendly in the international market despite the slow growth in *TSE* rate. Figure 3 shows some line graphs above the 100% threshold. This implies that *PSE* enrollment rates are above the school capacity; i.e., if a classroom was built to accommodate only 50 students in it, the class may have 60+ students in it; this is also a result of free mandatory primary education for all in most of our SLACs. Our 14 SLACs were selected due to the availability of macroeconomic development indicators, which is a common problem when studying economic growth policies from emerging nations.

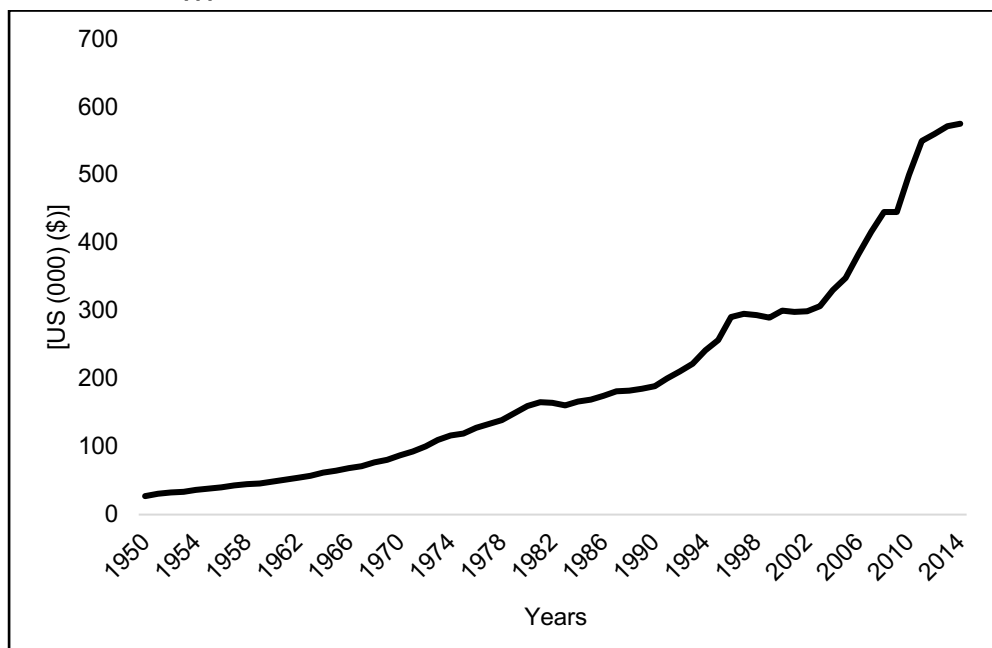
Based on existing literature and our descriptive statistic (Figure 3 & 6), one can infer that our SLACs require a more integrated system aimed at reinforcing the roles which promote higher education from an enrollment count to an attainment count.

Educational history, similarities, and differences of the SLACs

Most of the SLACs got their independence in the 1820s. The SLAC embraced the trinity of equality of John Locke (life, liberty, and property) nor Thomas Hobbes' social contractarianism theory. These two theorems are known to be the foundation for most democratic political systems. The revolutionary troops didn't adopt western neocolonialism, which collided with the SLACs culture, experiences, and history of the indigenous people (Verges, 1999). The neocolonialism era came with notable educational reforms that led to the establishment of indigenous universities in Bolivia, Ecuador, and Mexico intending to reconquer, modify their native language, and traditional systems (Aman, 2014). Some LACs like Bolivia, Cuba, and Venezuela have adopted the Karl Mark's and Friedrich Engels' (abolition of private property) as their nation's new contractarianism following Hobbes government-monarchism and disregarding Locke's government by, and for the people.

According to (Aman, 2015) the neoliberal ideology and the emergence of a new global commerce divide from merchandise to human cargo imposed on Latin America date back to when the region was part of the European map in the 20th century. The World Bank (WB) and International Monetary Fund (IMF) exposed the area to many harsh and unjust conditions. Several communities have countered these efforts by the IMF and WB within the region from the indigenous social movement in Bolivia, to Venezuela's Chavistas, to the Zapatistas in the Chiapas region of Mexico, to the landless movement in Brazil (Aman and Ireland, 2015). These resistance movements, backed by the Roman Catholic Church, has created its brand of education as an expression of anti-hegemonic resilience.

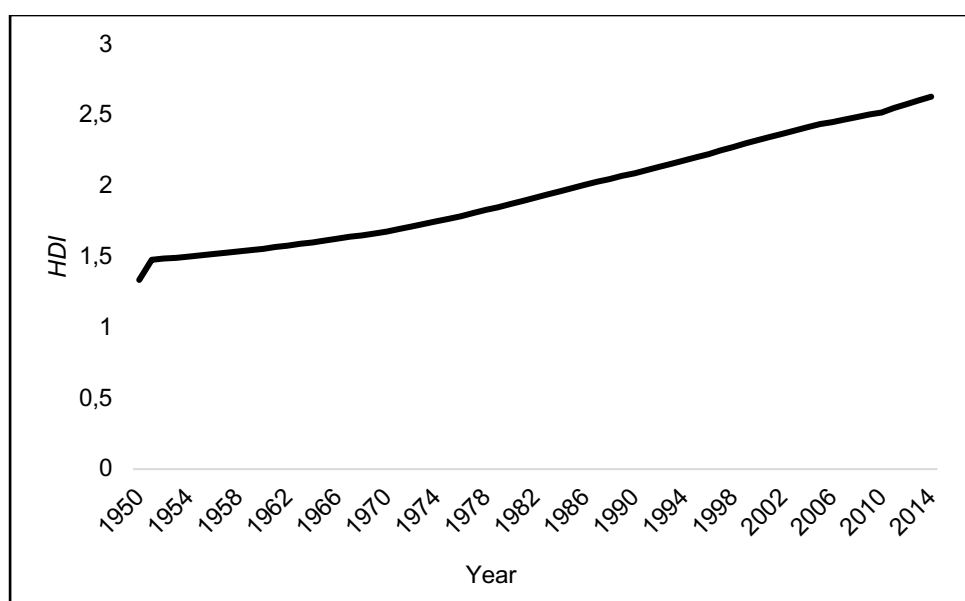
These anti-hegemonic events brought about marxism philosophy, substantive democracy, and a post-liberalized era. As a result, the newly inducted manifesto, the educational system in some parts of the region, assimilated its proposed ideology. Bolivia, Ecuador, and Mexico are good examples of countries that challenged the dominant western paradigm and scientific theories (Aman, 2014). President Juan Evo Morales declaring the decolonization of the educational from western influences, and the '80s, such concept, and practices found its way in the Nicaraguan educational policies (Aman and Ireland, 2015). The SLAC consist of one North American country (Mexico), five Central American countries (Costa Rica, Honduras, Nicaragua, Panama, and El Salvador), and eight South American countries (Argentina, Bolivia, Brazil, Chile, Colombia, Peru, Uruguay, and Venezuela).

Figure 4: $RGDP_{ppp}$ of the SLACs (1950 – 2014)

Source: (Penn World Table (PWT), 2019)

Author's creation

Figure 4 shows the expenditure side of the Real Gross Domestic Product ($RGDP_{ppp}$) at a chained (in Mn. 2011 USD) of the SLACs from 1950–2014 based on their moving average. Figure 4 depicts a steady upward trend of $RGDP_{ppp}$ from 1950–2014. Figure 5 shows the Human Development Index (HDI) of the SLACs from 1950–2014. And like that of $RGDP_{ppp}$ it also depicts an upward trend from 1950–2014. The increasing social and economic development over the past decades has led to progress in wellbeing. These countries have adjusted their social policies in response to the needs of their residents, which has resulted in a steady increase in the nations' human capital productivity and HDI . Most of these nations' signs of progress have been widely recognized, reaching essential milestones like becoming members of the OECD, creating budgets as a percentage of the GDP specifically for education, and deregulating their nations' education system to benefit local institutions in the rural regions of the country.

Figure 5: HDI of the SLACs (1950 – 2014)

Source: (PWT, 2019)

Author's creation

Our SLAC education systems are grouped into a centralized and decentralized educational system. In this study, the centralized will be defined as a condition where a single government agency, usually the Ministry of Education (ME), governs the educational system of the nation (federal, state, and local). While the decentralized educational system, which for this study, is defined as when governance power is shared among the federal, state, and local governments. In most cases, the responsibilities of the distribution of resources across all levels of the education sector and governances will come from the ME. In contrast with first-world nations like the US, the responsibility for formulating and implementing educational policies does not lie solely with the department of education but rather with other autonomous public education administrative departments; this analogy is similar to that of the OECD member nations.

The 14 countries in the study have been able to achieve universal access to primary education for its residents; however, access to pre-school has been achieved in some, and others are still in the works. In light of these successes, the education attainment rate in the lower and upper high school levels and university levels remains unsatisfactory, and the dropout rate is relatively high. Beyond the use of the education budget as a political propaganda tool to win votes from grade-school parents, Latin American politicians are well known for using education resources as political patronage (Plank, 1996) (Brown & Hunter, 2004).

According to (Brown & Hunter, 2004), the construction of schools, employment of principals, teachers, and staff are used as a wheel of clientelism and nepotism. The authors' presented some theoretical assertions that democratically run governments favored public spending on primary education versus authoritarian governments, who did not. Elected leaders like Alberto Fujimori of Peru (1990–2000), Vicente Fox of Mexico (2000–2006), and Fernando Henrique of Brazil (1995–2002) made use of this political strategy to reap up some political capital and electoral dividends (Brown & Hunter, 2004).

Education-economists like (Birdsall et al., 1998), (Paul & Wolff, 1996), and (Gonzalez Rozada, 2002) have criticized governments for implementing the politicalized education budgeting (Brown & Hunter, 2004). But a substantial body of literature has suggested the centrality of human capital formation for economic growth, economic development, and poverty alleviation (Brown & Hunter, 2004). The allocation of a significant amount of grants to improve the educational system of a nation can enhance the prospects of the nations' human capital in that region. For emerging economies, it is essential to devote a larger share of the education budget to the primary school sector, for which the public returns are high relative to spending on other areas of the educational system (Brown & Hunter, 2004). Because people in poverty are a significant slice of the population in most the SLACs and the low-income earner benefits more from the investment in primary education.

In general, it is common knowledge that the labor-market return to education is higher at the primary level and then starts to decrease at subsequent levels (Colclough et al., 2010). Most developing countries prioritize investment in their educational system. Still, the social return (positive social externalities) is lower than the private return due to government financing policies for free education (public investment in education) (Colclough et al., 2010). In the developing world, the evidence on wage returns to education continues to grow, showing a 10% increase in a person's wage for one additional year of schooling (Colclough et al., 2010). Until recent studies, it was generally accepted that wage returns in developing countries are usually higher at the primary level than subsequent levels ((Porta et al., 2006), (Psacharopoulos & Patrinos, 2004), (Jamal et al., 2003), (Patrinos & Sakellariou, 2006), (Pastore & Verashchagina, 2006), and (Colclough et al., 2010)).

According to (Psacharopoulos & Patrinos, 2002), the return to schooling declines over time, but other studies suggest that primary education is not enough. However, ((Nguyen's, 2002), (Lassibille and Tan's, 2005), (Kijima's, 2006), (Ali's, 2006), (Laguna and Porta's, 2004), (Tansel's, 2008), (Bellony and Reilly's, 2009), (Van Leeuwen's, 2005), and (Fiszbein et al., 2007)) disagree with their assertions and results, while (Reilly and Bellony, 2009), had conclusions that were for both primary and higher education.

Figure 6: The Educational orientation Matrix table of the SLAC.

	Argentina	Bolivia	Brazil	Chile	Colombia	Costa Rica	Honduras	Mexico	Nicaragua	Panama	Peru	El Salvador	Uruguay	Venezuela
Spanish as the official language of instruction	*	*		*	*	*	*	*	*	*	*	*	*	*
Portuguese as the official language of instruction			*											
English as a bilingual language of instruction				*	*	*		*		*				
National Education Institution and Policy (compulsory & free basic education)	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Free Tertiary Education													*	*
Specified budget for Education or spending as a % of GDP or a Mandated Education Financing Law	*	*	*	*	*	*				*				*
Decentralised the educational system		*		*			*	*						
Reformed the education policies		*		*			*	*			*			*

Author's creation

Similarities and differences of the 14 Selected Latin American Countries Policy Orientations

Figure 6 shows how the 14 SLACs relate and differ from one another in terms of policy orientation. Few countries in the Americas and the Caribbean have experienced drastic changes in their educational system, governance, and policies as our SLACs. The social, ideological, and political approaches used by their governments to improve the academic standards of their countries have been successful in so many ways, like increasing the literacy level of their nations by providing primary education for everyone and increasing the nations' aggregate human capital index (OECD et al., 2016).

From Figure 6, one can infer that all 14 nations' have a national educational institution for regulating and creating educational policies; compulsory free primary education for all residents, except Uruguay and Venezuela, which have free but not mandatory education up to the university level; and speak Spanish as its official language for learning, except Brazil, which speaks Portuguese. Chile, Colombia, Costa Rica, Mexico, and Panama have made reasonable efforts to promote the English language in their educational system. Argentina, Bolivia, Brazil, Chile, Costa Rica, Panama, and Venezuela all have a specified educational budget as a percentage of their nation's *GDP* and a mandated education financing law.

Bolivia, Chile, Honduras, Mexico, Peru, and Venezuela have all passed educational reform bills in their countries and decentralized (excluding Peru and Venezuela) their education system to make it more flexible for regional, state, and local official educational policymakers. There has been good progress in all 14 countries' educational systems. Despite the significant policy efforts in these nations, educational quality and equity concerns remain at the forefront of their educational orientations (OECD et al., 2016). These recognitions and willingness to work on

the stated concerns are invaluable to improving human capital in these countries and considering the individual countries' analysis of their educational orientations.

Discussion and Conclusion

The educational governance is overly centralized, rather than decentralized: the school system in the 14 SLACs (see Figure 6), especially those in the rural areas, have little and in most cases zero autonomy over their departmental or school educational policies to fit their unique situation, compared to nations that practice a decentralized education system like most OECD countries, with the exception of Bolivia, Chile, Honduras, and Mexico. Little or zero local school autonomy hinders the effective use of educational resources, as school authorities are unable to match their available resources and policies to their specific needs. Also, the responses from the central governing authority to the local schools are usually slow (OECD et al., 2016). The education system is centered on the quantity of student enrollment, rather than education quality and attainment. All 14 countries in the study all have mandatory and free primary education as education policy for all residents in their nations. This resulted in a high level of educational coverage between 85% and 99% of the country. Although a good policy, the focus should shift from student enrollment to attainment and from the number of schools to the quality of the schools with state-of-the-art equipment (OECD et al., 2016). This shift from quantity to quality will create a culture of excellence throughout their respective countries' education systems, which, in turn, will improve human capital.

In recent decades, all 14 nations have been known for their considerable efforts in spreading the coverage of school supplies on a broader range to reach every region in their countries. Although expansion has been considerably slow in most countries on our list, the operation of the extensive—more supportive schooling network is becoming more available in these nations to ensure children have easy access to educational learning materials, especially children in the rural areas while enforcing the mandatory and free public education policy. To achieve this, improving the supplies and the range of educational services will be a step in the right direction.

The accreditation standards and the General Law on Education (GLE) that is required in developed countries like the US can be adopted in the SLACs. Such as the Elementary and Secondary Education Act of 1965 (ESEA); the Every Student Succeeds Act (ESSA); the Individuals with Disabilities Education Act (IDEA); Title II of the Americans with Disabilities Act; Title IX of the Amendments of 1972; Title VI of the Civil Rights Act of 1964; the Workforce Innovation and Opportunities Act (WIOA); the Rehabilitation Act of 1973, as amended through PL 114 – 95; the Higher Education Act (HEA); and the Family Education Rights and Privacy Act (FERPA). These are all good governing policies that will ensure students get the support they need and reduce the dropout rate. Considering these [suggested new educational policies, new financing programs such as peer loans and private and government grant initiatives should be introduced to help low-income students further their education up to the tertiary level. Also, except for Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Panama, and Venezuela—who also have some form of specified education spending as a percentage of the nations' *GDP* or a mandated national education financing law—it is recommended that the remaining countries emulate this policy. Although notable efforts have been made to increase the influx of students into these nations' educational systems in the past few years, there is still a long way to go to achieve a reformed curriculum for teaching that will better equip their students for global competition. Considering the new curriculum system, an improved, modernized professional teacher-training process and standard should be introduced.

A highly relevant department to be established in the education governance system is the Institute for Education Accountability (IEA) (OECD et al., 2016). The IEA department will bring a democratic and independent voice to each country's educational system, and the department's jurisdiction will also cover principal officers, policymakers, and elected government officials. For example, the execution of public expenditure on the educational system, recruitment, deployment, and promotion of teachers. Among the many accountability responsibilities assigned to the IEA, the department will also be in charge of identifying the sources of inefficiencies in the educational system (OECD et al., 2016).

Within the 14 SLACs, there has been a lack of high-quality educational research and development, low investment in the research and development departments, and weak links between research findings and educational policies in the systems. The ME in each country should strengthen the research and development sector by increasing its investment in the department, the creation of a public center for educational research and development is a way to solve this issue while alleging it is the department's finding with new educational policies. In many developed nations, the schools' leadership has become a priority for educational policy and strategic planning because the schools' governing bodies are responsible for implementing educational reforms and are thus central to the improvement of the educational system.

It is safe to conclude that education in SLACs has evolved over the years deviating from the foundational colonial orientations. From our investigation, countries were more concerned with their enrollment numbers (see Figure 3) exceeding full capacity at the primary level and almost at full capacity at the secondary level than the student learning and advancement in their educational career. The disparity between education attainment at all levels of the education system and the great divide between enrollment rates in the primary, secondary, and tertiary levels have brought about a learning crisis. A learning crisis is defined as a situation where students are enrolled in a formal academic institution but are failing to learn, and these numbers are much higher within the rural communities. It is a blurred line between a child that is among the NEET group and one who is enrolled and failing to learn.

Figure 6 shows that 57% of our case study has some form of a specified budget as a percent of the nation's *GDP* mandated into their law for education spending. This bold movement led people to question the government if other socio-economic issues like (roads, running water, and power supply) are less important than human capital investment. I'll argue that the most critical resource among the factors of production is a highly trained individual. As a socio-economic investment, the human mind is the most essential because it can give a community a comparative and absolute advantage over its competitors. Understandably, the results and dividends from the expensive investment in education is a long-run case study. Still, nations like Singapore have spent similar amounts on basic education as a percentage of their nations' *GDP* and achieved a high return on their investment. Today with a population of 5.6 Mn people, Singapore is ranked 16th among other countries in the world with a *GDP_{per capita}* of 101, 387 USD, and it ranks 2nd in the Program for International Student Assessment (PISA). The study advises policymakers and economists to create, advocate, and implement the use of a systematic learning assessment at all levels of the educational system, including the administrative staff and academics. Because, just pouring money into an already broken system will only be funding inefficiency in the educational systems, which leads to the devaluation of human capital investment.

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