Impact of medium of instruction in education on economic growth and development

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Abstract. The main factors behind modern education system are, subjects taught from primary schools to universities. Information, theories, concepts, ideas, life stories – everything is western. Today it is known by English medium education. Someone rightly said that "If we want to destroy any people or nation without any blood transfusion and without zipping a bomb then it is necessary to separate the person from his religion, culture and language".

Hence these three parameters (religion, culture and language) play a significant role in nation transformation but we will consider only one parameter in this paper i.e. language. To find out the effect of medium of instruction in education on social and economic aspects, the researcher will select all the countries having developed, developing and miserable economy of the world.

Further, this paper had discussed about the effect of English medium education in higher education on economic development. "Till date, as far as I know no study in economic growth has investigated the effect of English on growth either empirically or theoretically. A small number of studies have considered the importance of language for spillovers". So, researcher is curious to know the spillover effect of English language on the economic development.

Keywords: education and human development, economic thought, human growth and development, India.

JEL Classification: F6, O4, O5.

Introduction

"English is the dominant international language of the 21st century. It is spoken at a useful level by some 1.75 billion people – a quarter of the world's population. As the language of communications, science, information, technology, business, entertainment and diplomacy, it has increasingly become the operating system for the global conversation." Due to colonization, most of countries use the colonial languages as their official languages. The colonial languages such as English, French, Portuguese and Spanish were still holding a major part of the world. "The official language is defined as "The language in which the primary affairs of the community – the government, the media, the courts and the school – are conducted."

The western domination over the globe was gradually increased because of the trading by Europeans. It was widely accepted as a result of its impact over economic growth.

They destroyed countries, not by the physical attack but by the mental attack. It is worldly known that how Macaulay frolicked in the case of India. He wrote to his father that "If we want to destroy India, we have to attack its education system" and they exactly did the same thing in India. Now the question is how?

- 1. First, they established an English medium school in India.
- 2. Second, they introduced English as one of the compulsory subjects in every grade irrespective of medium of instruction. Without this, we will not get admission in college and university.
- 3. Thirdly, in every sense create an inferiority complex in the mind of a non-English medium student at school and university level.
- 4. They destroyed the nation as a whole by establishing western philosophy through education.

These were indirect attacks by the British on Indian mindset. They destroyed Indian philosophical value system, their norms and rituals etc. Indians still feel proud to say hello and good morning in everyday usage instead of greeting "નમસ્તે" (Namaste).

Every developing country may have same story like India. Every colonial country was prosperous in terms of knowledge, wealth and their value system and had unique status in the world. But as a result of colonization, the colonial countries lost their status, wealth and value system. Though these countries became independent from the colonial ruler, but all were either under or less developed. What is the reason behind this? "By birth, they are the citizen of their respective countries but their mindset is still colonized" as they follow western culture and consider their culture as inferior one.

In less developed, underdeveloped and developing country, more than 50% population belongs to the middle-class family. These all middle men are engaged in farming or small-scale business activity. They put huge efforts into giving the best education to their child in a good institution, even at the cost of their own basic needs.

1. The elite class of society in these countries send their kids to English medium school and its spillover effect on middle man, so due to the lack of social and economic overheads in rural area, many of them also migrates to urban area in the search of good English medium institution for their kids.

2. Due to this agriculture-related business fell, but it doesn't mean that dependency on agriculture is reducing and contribution of the manufacturing sector is increased. Actually, all those who migrated from rural to an urban area for the education purpose were largely belonging to the unskilled workforce. They did not get a job in the industry and thus they started a small-scale business activity to earn minimum daily wages.

So, it is directly or indirectly affecting the Agro-economy. For instance, Latin et al. (2014) using a cross-country and micro-level analysis have found that the average distant to official language, which captures the ability to speak an official language, has a negative and statistical impact on growth and individual outcome (literacy, income, etc.).

In the above two-paragraph, we discussed social and economic effect due to the trend of English medium of instruction in higher education in the world. To check whether the English as a medium of instruction in higher education in various countries of the world affects the HDI and GNI ranks of the country.

What do we mean by "development"?

In earlier days economic development was confined to GDP per-capita. It has been argued by development economists and even by Nobel Prize laureate Samuelson in a famous paper from 1951, income is clearly an imperfect metric as a measure of development. As it is obvious from the UNDP's Human Development Index, or the focus of a number of world-renowned research institutions on very particular indicators (the International Food Policy Research Institute's use of child anthropometrics being a typical example), development is a multidimensional process that can be measured along a plethora of dimensions. Maternal and infant mortality, access to clean drinking water, the prevalence of infectious diseases, the empowerment of women, literacy or school enrolment rates, measures of the incidence of poverty or access to sufficient calorie and protein intake, life expectancy at birth.

As said above, this paper had analysis of the effect of English medium education in higher education and economic growth of countries, researcher selected 7 continents of the world, 51 countries of Asia, 44 countries of Europe, 51 countries of Africa, 37 countries of North America, 14 countries of South America and 14 countries of Australia.

Statement of problem

Impact of medium of instruction in education on economic growth and development.

Need and significance

Human resource is a fundamental unit of economic development. It is developed through education which is received in different medium of instruction. This also defines the state of development. Thus, the medium of instruction is prime factor to be analyzed for economic development.

Scope and coverage of research

There are several aspects for measuring economic development such as availability of human resource, physical capital, natural resources and technology. But here, the human resource is taken into consideration with confinement to medium of instruction in education.

Research objective

1. To explore the consequences of a language that is chosen as an official language and is very "distant" from the languages spoken by the majority of the population.

- 2. To analyses, whether the English as a medium of instruction in education in various countries affects the HDI and GNI ranks of the respective country.
- 3. To check how vernacular languages as a medium of instruction in higher education in various countries of the world affects the ultimate economic development of the country.
- 4. To determined effects of medium of instruction on economic development by comparing GNI, HDI and medium of instruction in higher education through flow diagram.

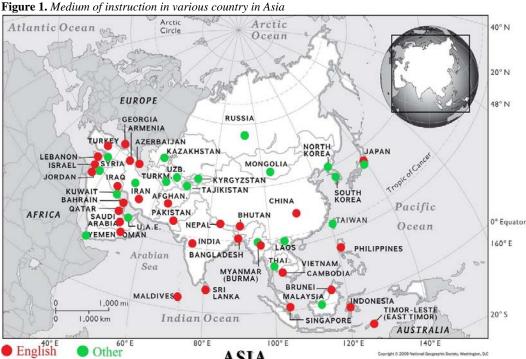
Materials and methods

Research methodology

Conduct a study based on secondary data which are collected from online sources for the medium of instruction. GNI and HDI rank are referred from World Bank report 2018.

Data analysis and interpretation

1. Asian Continent



Source: languages of the world - Nation online project.

 $\textbf{Table A-1.} \ Description \ of \ various \ categories \ of \ class \ used for \ study \ of \ data \ of \ medium \ of \ instruction \ in \ higher \ education \ for \ Table \ 1.1$

Colour	Medium of instruction	HDI and GNI rank	No. of countries
Yellow	English	Low Scale	14
Red	English and Vernacular language	Low Scale	06
Blue	Vernacular language	Medium Scale	8
Pink	English	High Scale	8
Green	Vernacular language	Low Scale	3
Grey	English and Vernacular language	High Scale	3
No colour	Data not available	Data not available	9

 Table 1.1. Asian countries GNI and HDI rank compare with its medium of instruction 1

Sr. No.	Country	Moi	HDI Rank 2018	GNI (per capita) 2018
1.	Afghanistan	English	168	183
2.	Armenia	English	83	111
3.	Azerbaijan	English	80	118
4.	Sri Lanka	English	76	116
5.	Bangladesh	English	136	151
6.	Bhutan	English	134	132
7.	Turkey	English	64	68
8.	Cambodia	English	146	157
9.	Maldives	English	101	73
10.	Pakistan	English	150	155
11.	Vietnam	English	116	139
12.	Georgia	English	70	115
13.	India	English	130	144
14.	Indonesia	English	11	120
15.	Oman	English	48	56
16.	Singapore	English	9	11
17.	Saudi Arabia	English	39	40
18.	Qatar	English	37	08
19.	Bahrain	English	43	38
20.	Brunei (Darussalam)	English	39	29
21.	Brunei (Darussalam)	English	39	29
22.	Cyprus	English	32	34
23.	Jordan	Arabic, English	95	113
24.	Myanmar-Burma	Burmese, English	148	163
25.	Iraq	Arabic, English	120	102
26.	Philippines	Filipinos And English	113	121
27.	Tajikistan	Russian And Tajik	127	167
28.	Lebanon	English And French	80	81
29.	Iran	Persian, English	60	98
30.	Israel	Hebrew, Arabic, English	22	25
31.	Japan	Japanese	19	21
32.	Malaysia	Malay	57	66
33.	Kuwait	Kuwait	56	27
34.	Kazakhstan	Kazakh Or Russian	58	79
35.	Turkmenistan	Turkmen	108	86
36.	United Arab Emirates	Uzbek, Tajik, Turkish,	34	24
37.	Thailand	Thai	83	87
38.	China	Chinese	86	71
39.	Uzbekistan	Uzbek, Russian	105	144
40.	Yemen	Arabic	179	168
41.	Nepal	Nepali	149	168
42.	Mongolia	Chinese and Tonglia	92	124
43.	Kyrgyzstan	Uzbek,Tazik, Turkish	122	
44.	Korea- North	Macau, Cantonese	22	

Sr. No.	Country	Moi	HDI Rank 2018	GNI (per capita) 2018
45.	Laos	Lao	139	
46.	Korea- South	Macau, Cantonese	22	
47.	Macau	Portuguese		
48.	Palestine	Arabic	119	
49.	Syria	Arabic	155	
50.	Taiwan	Chinese		
51.	Timor-Leste	English		149

Source: (Languages of the world – Nation online project/Human Development Report Office, 2018/Gross national income per capita 2018, Atlas method and PPP).

Countries having a medium of instruction in the vernacular language have good HDI and GNI ranks but countries having English as a medium of instruction in the higher education possess lower GNI and HDI rank. According to Betty Mkwinda-Nyasulu "Communication is an important prerequisite of development and this is manifested through language. Language must be seen to be communicating the intended meaning as a vehicle to achieving set goals, and not an end in itself. These set goals in this case, would be education, national unity or identity, and socio-economic development."

According to Christopher McCormick "Billions of people around the globe are desperately trying to learn English-not simply for self-improvement, but as an economic necessity. It's easy to take for granted being born in a country here people speak the lingua franca of global business, but for people in emerging economies such as china, Russia and India, where English is not the official language, good English is a criteria tool, which people rightly believe will help them tap into new opportunities at home and abroad". Thus, it is discerned from the above analysis that the English as a medium of instruction in higher education, directly or indirectly affects the Human development and National Economy in Asian continent.

Study of "lee Che Ging Januar" totally opposed this study. According to him "The level of English proficiency can be viewed as a part of human capital that the ability to absorb knowledge is positively related to the level of English proficiency. Therefore, countries with having higher level of English proficiency among other, the fraction of its population are likely to grow faster. This empirical result provides evidence of positive correlation between initial English proficiency and economic growth only for the countries in the Asia and Europe. The spectacular growth of Asian countries can be attributed to the heavy investment in the creation of human capital that fosters English speaking culture and promotes a climate of the use of English. According to him increase in English proficiency will directly accelerate the knowledge, absorptive capabilities of worker."

This is not true in the case of developing nations. Because in majority, colonial countries of Asia use English as medium of instruction in higher education. Due to English as medium of instruction in higher education, less student enrolls for higher education. Also, in developing countries major people are residing in rural area, so student migrates from rural to urban area for education. Out of these majority students are from vernacular medium. They attend lecture regularly in college but they did not understand any concept during class. So, it's like west of time to attend lecture because of not being able to understand anything whatever taught in the class and without understanding the concept,

how one can remember the concept and failing to remember the concept led to mug up the concept and appear with the same in the exam. Some of them crack the exam and other may fails continuously. So, next year they dropout from college and start looking to earn money by their own business or go on with their father's occupation. Now those who passes the exam by mug-up method without understanding the concept face the difficulties at the time of employment. When they appear in interview, some of them may know the concept but could not express themselves in English language. So ultimately economic development of country directly and indirectly depends upon social overheads, in Asia social infrastructure is week due to use of colonial language in higher education. "Mustafa said English cannot solve our ills. There are not enough teachers who know English and can teach in English. Children cannot comprehend what they are taught", that's why we are generating inferior quality of scientist, doctors, engineers, teachers, technologist. Due to poor social infrastructure of education, developing countries are facing many challenges like unemployment, poverty, corruption, etc. The main reason of this evil is that the wisdom of particular branch does not reach to student. So, they do not understand values system, ethos, morals value, norm and logic behind the particular branch of knowledge.

2. Europe continent

Figure 2. Medium of instruction in various country in Europe



Source: languages of the world – Nation online project.

Table A-2. Description of various categories of class used for study of data of medium of instruction in higher education for Table 1.2

Colour	Medium of instruction	HDI and GNI ranks	No. Of countries
Red	English	Good	4
Brown	Vernacular language	Good Scale	40

Table 1.2. European countries GNI and HDI rank compare with its medium of instruction

Sr. No.	Country	Moi	HDI Rank	GNI Rank
1.	Germany	English	5	18
2.	United Kingdom	English	13	21
3.	Netherlands	English	10	
4.	Sweden	English	7	12
5.	Russia	Russian	49	69
6.	France	French	24	23
7.	Italy	Italian	28	28
8.	Spain	Spanish	26	32
9.	Ukraine	Ukrainian	88	136
10.	Poland	Polish		
11.	Romania	Romanian	52	65
12.	Belgium	Dutch And French	17	19
13.	Greece	Greek	31	44
14.	Czechia	English		
15.	Portugal	Portuguese	41	39
16.	Hungary	Hungarian, English	45	58
17.	Belarus	Russian	53	97
18.	Austria	German	20	
19.	Serbia	Serbian	67	89
20.	Switzerland	German	2	01
21.	Bulgaria	Bulgarian	51	76
22.	Denmark	Danish	11	09
23.	Finland	Finnish And Swedish	15	17
24.	Slovakia	Slovak	38	
25.	Norway	Norwegian	1	02
26.	Ireland	Irish	4	10
27.	Croatia	Croatia	46	61
28.	Moldova	Romanian And Russian	112	133
29.	Bosnia And Herzegovina	Croatia	77	95
30.	Albania	Albanian	68	105
31.	Lithuania	Lithuanian	35	48
32.	North Macedonia	Macedonian	80	99
33.	Slovenia	Sloven	25	36
34.	Latvia	Russian And Latvian, Ukrainian	41	50
35.	Estonia	Estonian	30	42
36.	Montenegro	Montenegrin	50	77
37.	Luxembourg	English French And German	21	5
38.	Malta	English	29	35
39.	Iceland	Icelandic	6	6
40.	Andorra	Spanish	35	
41.	Monaco	Monaco		
42.	Liechtenstein	Melty Language	17	
43.	San Marino	Italian, English	Na	
44.	Holy see	Latin	Na	D 4055 2010/G

Source: (Languages of the world – Nation online project/Human Development Report Office, 2018/Gross national income per capita 2018, Atlas method and PPP).

Countries having a medium of instruction in the vernacular languages have good HDI and GNI rank in the world but those having English as medium of instruction in the higher

education have lower GNI and HDI rank in the world. Thus, it is perceived from the above analysis that the medium of instruction in higher education directly or indirectly affects the positive on Human development and National Economy.

The countries from this continent ruled the world till 19th century and due to industrialization, this country gained economic power in the world. So, they achieved a privilege of high development in early stage. Thus, these countries come under the category of developed countries. Though the UK's political and military power was crucial in the 19th and early 20th centuries, this established English as dominant over French in the United States; and then – as the UK's empire shrank in the 20th century – rapidly growing American global influence gave the language a momentum perhaps unique in modern history.

- 1. The countries which left uncolonized has no spillover effect on them. It is easy for those countries to develop on the basis of their norms, value system, rituals, moral and knowledge. They select their native language as official language in all place. So, their success is because of local language as people can understand, communicate, write and read easily and hence it led to increase growth of the country.
- 2. Due to industrialization people migrated from rural area to urban area, so they have easy availability of social and economic overheads.
- 3. They believe that the UK must continue to invest in English for the benefits, opportunities and value it brings to our trade, our culture and our people.

3. Africa continent

MOROCCO ASIA 800 km ALGERIA LIBYA Tropic of 20° N NIGER Arabian ERITREA SUDAN CHAD -DJIBOUTI Atlantic GUINE SIERRA I FONE NIGERIA Ocean CEN ETHIOPIA LIBER TOGO CAMEROON REP CÔTE D'IVOIRE SOMALIA EQ. GUINEA UGANDA COAST) CONGO RWANDA BURUNDI. GABON Indian Ocean SAO TOME AND PRINCIPE DEM. REP. OF THE CONGO SEYCHELLES SOUTH AMERICA COMOROS MOZAMBIQUE MIBIA BOTSWANA Tropic of Capricorn SWAZILAND SOUTH English Portuguese AFRICA

Figure 3. Medium of instruction in various country in Africa

Source: languages of the world – Nation online project.

Other

 $\textbf{Table A-3.} \ Description \ of \ various \ categories \ of \ class \ used for \ study \ of \ data \ of \ Medium \ of \ instruction \ in \ higher \ education \ for \ Table \ 1.3$

Colour	Medium of instruction	HDI and GNI rank	No. of countries
Red	English	Low Scale	17
Yellow	English and French	Low Scale	19
Blue	Portugal language	Low Scale	04
Green	Vernacular language	Low Scale	12

Table 1.3. African countries GNI and HDI rank compare with its medium of instruction

Sr. No.	Country	MOI	HDI Rank	its medium of instruction GNI Rank
1.	Nigeria	English	157	147
2.	Ethiopia	English	173	174
3.	South Africa	English	113	187
4.	Kenya	English	142	153
5.	Tanzania	English	154	166
6.	Namibia	English	129	101
7.	Botswana	English	101	
8.	Lesotho	English	159	160
9.	Gambia	English	174	177
10.	South Sudan	English	187	184
11.	Rwanda	English	158	175
12.	Eritrea	English		
13.	Liberia	English	181	182
14.	Sierra Leone	English	184	184
15.	Zimbabwe	English	156	150
16.	Mauritius	English	65	63
17.	Swaziland	English	144	
18.	Cameroon	English And French	151	157
19.	Senegal	French	164	
20.	Codeliveries	French	Na	154
21.	Morocco	French	123	131
22.	Chad	French	186	178
23.	Somalia	English And Somali	158	
24.	Niger	French	189	190
25.	Burkina Faso	French	183	179
26.	Seychelles	English, French	62	54
27.	Congo	French	176	82
28.	Burundi	French	185	192
29.	Togo	French	165	180
30.	Benin	French	163	170
31.	Guinea	French	175	171
32.	Equatorial Guinea	French	141	84
33.	Congo	French	176	185
34.	Djibouti	French	172	141
35.	Central African Republic	French	188	
36.	Comoros	French and Arabic	165	162
37.	Uganda	Ugandan	162	181
38.	Algeria	Arabic	85	116
39.	Tunisia	Tunisian Arabic	95	126
40.	Libya	Arabic	108	90
41.	Sudan	Arabic	167	156
42.	Mauritania	Arabic	159	165
43.	Egypt	Arabic	115	135
44.	Angola	Angolan	147	128
45.	Mozambique	Portuguese	180	188
46.	Ghana	Ghanaian	140	142
47.	Madagascar	Malagasy	161	188

Sr. No.	Country	MOI	HDI Rank	GNI Rank
48.	Zambia	Zambian	144	
49.	Guinea-Bissau	Portuguese	177	176
50.	Cape Verde	Portuguese	125	
51.	Sao Tome and Principe	Portuguese	143	

Source: Languages of the world – Nation online project/Human Development Report Office, 2018/Gross national income per capita 2018, Atlas method and PPP.

Countries having a medium of instruction in the vernacular language have low HDI and GNI rank in the world but countries having English as a medium of instruction in the higher education have also lower GNI and HDI rank in the world. Thus, it is observed from the above analysis that the medium of instruction in higher education, directly or indirectly affects the Human development and National Economy.

"In 19th century, European countries colonized almost all Africa. Most present countries in Africa emerged from a process of decolonization in the 20th century, between increasingly powerful European countries as a key underlying cause for the Scramble for Africa. Once one nation conquered a territory abroad, others felt compelled to respond or they would lose power and prestige.

Some African countries had to fight for independence because Europeans had settled in certain lands and didn't want them to gain independence because they wanted to use their natural resources. It helped European colonial governments to gain raw materials from Africa like crops and minerals. Europeans obtained market for their manufactured goods from Europe.

In order to develop economic activities in Africa, colonial governments-built infrastructure like roads, railway houses" (May 12, 2017).

Due to this, there is negative spillover effect of European countries on Africa. As like other continents they also adopted the colonial lifestyle. So, elite section of African society prefers European life style and hence other section of society also follow them and government also use English, Spanish and French as official language at every place.

So, levels of education in Africa are comparatively low creating a considerable skill gap among youth at working age. According to the African Development Bank, 25% of African youths are still illiterate and despite a rise in primary school enrolment from 60% in 2000 to 77% in 2011, the issue of low skills levels in the workforce will continue to be a problem. This all problems due to colonial language use in higher level of education.

4. North American continent: Medium of instruction in various country

Figure 4. Medium of instruction in various country in North America



Source: languages of the world – Nation online project.

Table A-4. Description of various categories of class used for study of data of Medium of instruction in higher education for Table 1.4

Colour	Medium of instruction	HDI and GNI rank	No. Of countries
Red	English	Data not available	15
Blue	Spanish	Low Scale	10
Yellow	French	Data not available	01
Green	Multi language	Low Scale	10

Table 1.4. North American countries GNI and HDI rank compare with its medium of instruction

Sr. No.	Country	Moi	HDI Rank	GNI Rank
1.	United States	American English	13	07
2.	Kitts And Nevis	English	Na	
3.	Kingdom Of Netherland	English	10	
4.	Turks and Caicos Island	English	Na	33
5.	Martin	English		
6.	Virgen Island	English	Na	
7.	Anguilla	English	70	
8.	Barthelemy	English	Na	
9.	States Virgin Islands	English	Na	
10.	Grenada	English	75	70
11.	Montserrat	English	Na	
12.	Cayman Island	English	Na	
13.	Martinique	English	Na	
14.	Trinidad And Tobago	English	69	51
15.	Belize	English	106	108
16.	Mexico	Spanish	74	74
17.	Dominican Republic	Spanish	94	82
18.	Honduras	Spanish	133	140

Sr. No.	Country	Moi	HDI Rank	GNI Rank
19.	Salvador	Spanish		
20.	Guatemala	Spanish	127	109
21.	Cuba	Spanish	73	
22.	Costa Rica	Spanish	63	64
23.	Panama	Spanish	66	59
24.	Antigua And Barbuda	Spanish	Na	52
25.	Dominica	Spanish	103	83
26.	Pierre And Miquelon	French	Na	
27.	Haiti	French, Creole	168	173
28.	Nicaragua	Bilingualism	124	143
29.	Puerto Rico	Spanish, English		41
30.	Jamaica	Jamaican Creole And English	97	103
31.	Guadeloupe	French, Creole Patois	Na	
32.	Bahamas	English And Creole	54	31
33.	Barbados	English Or French	58	55
34.	Canada	English Or French	11	20
35.	Saint Lucia	English, French Potosi	90	
36.	Bermuda	English and Portuguese	Na	
37.	Greenland	Danish	Na	

Source: Languages of the world – Nation online project/Human Development Report Office, 2018/Gross national income per capita 2018, Atlas method and PPP.

Countries having a medium of instruction as the English and Spanish language have low HDI and GNI rank in the world but those countries having multi language as medium of instruction in the higher education also have lower GNI and HDI rank in the world. Thus, it is observed from the above analysis that the medium of instruction in higher education, directly or indirectly affects negatively on Human development and National Economy.

5. South America continent: Medium of instruction in various country

NORTH
AMERICA
VENEZUELA
SURINAME
COLOMBIA
COLOMBIA
COLOMBIA
COLOMBIA
FPERU
PARAGUAY

PARAGUAY

CHILE
ARGENTINA

PARAGUAY

FALKLANDIS.
(ISLASM LVINAS)
(U.K.)

IA0°W
I20°W
Other

COLOMBIA

PARAGUAY

AFRICA
COLOMBIA
FPERU
BRAZIL

PARAGUAY

Atlantic Ocean

1,000 mi
(ISLASM LVINAS)
0 1,000 mi
(U.K.)

COLOMBIA
COLOMBIA
FPERU
COLOMBIA
COLOMB

Figure 5. Medium of instruction in various country in South America

Source: languages of the world – Nation online project.

Table A-5. of various categories of class used for study of data of Medium of instruction in higher education for Table 1.5

Colour	Medium of instruction	HDI and GNI rank	No. Of countries
Red	English	Low Scale	07
Blue	Spanish	Low Scale	10
Yellow	French	Data not available	01
Green	Multi language	Low Scale	10

Table 1.5. South American countries GNI and HDI rank compare with its medium of instruction

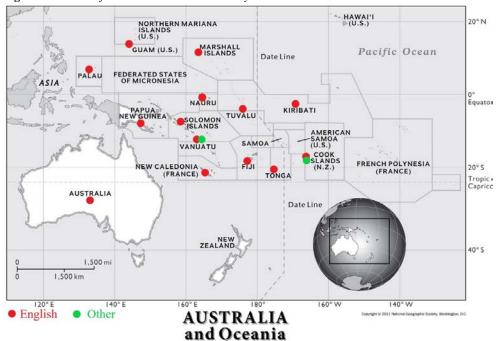
Sr.	Country	Moi	Hdi Rnk	Gni Rank
No.	•			
1.	Colombia	Spanish	90	91
2.	Peru	Spanish	89	88
3.	Chile	Spanish	44	57
4.	Argentina	English	47	62
5.	Venezuela	English	78	
6.	Ecuador	English	86	92
7.	Bolivia	English	118	
8.	Falkland Island	English	Na	
9.	Uruguay	English	55	53
10.	Guyana	English	125	106
11.	Paraguay	Spanish, Guarani	110	96
12.	Brazil	Brazilian Portuguese	79	75
13.	Suriname	Dutch	100	103
14.	French Guiana	French	125	

Countries having a medium of instruction in the English and Spanish language have low HDI and GNI rank in the world but countries having multi-language as medium of instruction in the higher education have also lower GNI and HDI rank in the world. Thus, it is observed from the above analysis that the medium of instruction in higher education, directly or indirectly affects the Human development and National Economy.

Colonialism brought to Latin America the quick spread and influence of Christianity into the land, replacing traditional religions. European languages like Spanish, English, Portuguese, Dutch, and French have been introduced to the native people. However, the economic and social effects of colonialism are clear. I think that the three most important long-term consequences of Columbus's encounters with the Americans were slavery, spread disease through the Columbian exchange, and new rivalries in Europe. The early English settlers ran into many troubles such as, poverty, food shortage, and disease.

6. Australia continent: Medium of instruction in various country

Figure 6. Medium of instruction in various country in Australia



Source: languages of the world – Nation online project.

Table A-6. Description of various categories of class used for study of data of Medium of instruction in higher education for Table 1.6

Colour	Medium of instruction	HDI and GNI ranks	No. of countries
Red	English	Low Scale	12
Green	Multi language	Low Scale	02

Table 1.6. Australian countries GNI and HDI rank compare with its medium of instruction

Sr. No.	Country	Moi	Hdi Rank	Gni Rank
1.	Australia	English	3	13
2.	Nauru	English		66
3.	Tonga	English	98	110
4.	Tuvalu	English	100	
5.	Fiji	English	92	93
6.	Kiribati	English	134	130
7.	Marshall Island	English	106	107
8.	Micronesia	English	131	
9.	Palau	English	60	49
10.	Papua New Guinea	English	153	137
11.	Samoa	English	104	114
12.	Saolamon Island	English	152	146
13.	Vanuatu	English And French	138	134
14.	New Zealand	English, Kura Kaupapa	16	

Source: (Languages of the world – Nation online project/Human Development Report Office, 2018/Gross national income per capita 2018, Atlas method and PPP).

Countries having medium of instruction in the English language has low HDI and GNI rank in the world but countries having multi-language as medium of instruction in the higher education have also lower GNI and HDI rank in the world. Thus, it is observed from the above analysis that the medium of instruction in higher education, directly or indirectly affects the Human development and National Economy.

Result and discussion

"In the world, people are desperately trying to learn English – not simply for self-improvement, but as an economic necessity." It's easy to take for granted being born in a country where people speak the *lingua franca* of global business, but for people in emerging economies of various continent like Asia, Africa and countries like China, Russia, Brazil and India where English is official language, bad English is a critical tool, which people rightly believe will not help them tap into new opportunities at home and abroad." From above study researcher found that vernacular language as a medium of instruction in the country lead to positive impact on their economy and their HDI and GNI ranks, both are high except few countries of the world. As in the case of United Kingdom, the English language is perhaps the greatest and yet least-recognized international asset. It is a cornerstone of UK's identity and it keeps UK in the mind of hundreds of millions of people around the world, even when they are not talking to UK. Thus, the people and government of UK always seeks to get most out of the language. They strategically think that by improving the standard of English they will always prosper. For the nation their approach is that The UK must continue to invest in English for the benefits, opportunities and value it brings to their trade, their culture and their people.

In developing countries and under developed country still not growing because of underutilization of human resources. The Productivity growth is widely regarded as the main source of welfare and economic prosperity. Over the last fifty years, economic literature has identified various sources of productivity growth in an attempt to understand why countries grow at a different rate. Historically, developed nations followed a strategy of physical and human capital deepening in stimulating growth and higher levels of per capita income. As countries approach the international technological frontier, to remain in a high growth trajectory they must invest in the generation of new knowledge and ideas through R&D. Investment in R&D is the main source of knowledge accumulation that vastly contributes to productivity growth at industry level, although human capital has been considered to disentangle productivityraising innovation in aggregate level studies.

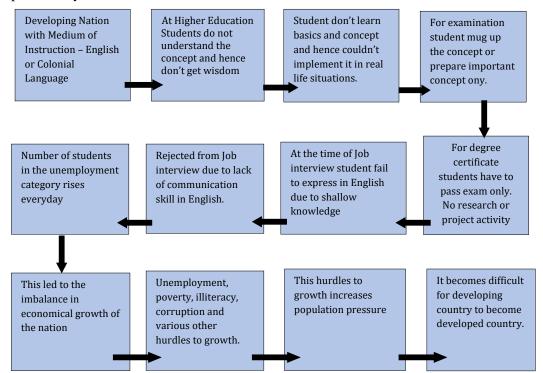
Recommendation

- 1. We should give more emphasis on human capital through education. At present, in the under developed countries more than 50% population are illiterate. By providing education to them literacy rate will increase. So, we should provide free and compulsory education to all of them and it should be in mother tongue or vernacular language. Because use of local language in education will create a smooth path for economic development.
- 2. If education is given in language other than the vernacular/local language, then students of the first generation of the family getting educated will not find proper guidance and help

- from the family and society. And at longer run this creates an economic burden on the nation because the resource provided by the nation goes in vain.
- 3. It is observed that developing and under developed countries of the world provides the higher education in the colonial language or in the English, which makes people of the country to make extra efforts to learn foreign language. While non-colonial countries and developed nation use their native language in the higher education and as well as in official language. So, they get huge amount of outcome from investment made on HRD, because at the end they become productive labor force for the country. In developing countries, expenditure made on education is not considered as important investment because they understand that it will not produce anything after completing study.

Flow Diagram 1

This model lead to poor economic growth because it directs the nation towards reducing productivity.

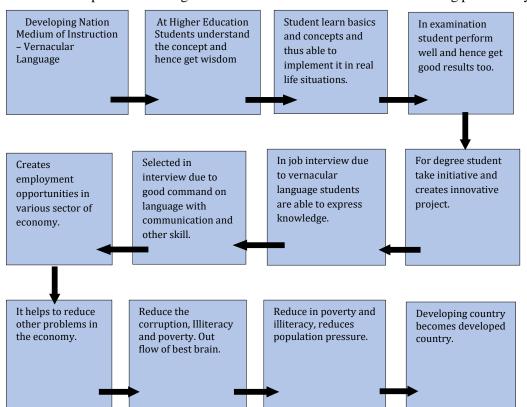


The above model is the check for the developing country. It is observed that medium of instruction in education directly affects the development of nation and generation of productive labor force. For a developing country, youth is a future. Nation makes huge investment in terms of time, money and resources for youth. The primary aim is to add value and skills in the lives of people so that in return they add to the economy. But here a typical case of English medium education directs the nation towards poor economic growth and reduced productivity. The colonial languages are still hurdling in the growth of the nation.

Sometimes it happens that students from English medium education will produce productive labor, since they will be able to interact at global platform. But they are not more than any machine. They will be having information and subject knowledge but they don't understand how to implement it and hence they don't add value to the economy.

Flow diagram 2

This model helps to economic growth because it directs the nation to increasing productivity.



Language is an indispensable tool for the communication with the society. Language has huge economic value as it supports trade, provides a significant competitive advantage and delivers a growing market. It is a critical component of trust building and, in turn, trade and prosperity. According to the model shown above the students studying in vernacular medium will understand the concepts easily and will be able to implement it. Thus, literacy rate increases which indirectly aids to the nation growth as they reduce number of problems arising in the country. Youth at work supports the economic growth of the country. It results in the decrease of poverty and corruption. All the above discussion ends with the positive results that developing country can become developed country easily.

Scope for further study

As economic development depends upon natural resources, physical capital and technology, the growth could be measured on the bases of any of the above or developing country.

Limitation: The objective of this research was restricted to only one factor of economic development that is development through human resource.

Conclusion

English has developed as a global language for a range of reasons, many of them historical, rather than anything intrinsic in the language itself. The acceptance of English language over the globe, has made it language of primary importance. It has also proven to be an effectively growing economic activity. The countries where the language is originated are having higher HDI and GNI ranks in the world because of the growth measures are on high scale. Thus, it can be directly derived that the growth of the country whether it is economic or social depends upon the medium of instruction. So, in the case of colonial countries where the medium of instruction is colonial languages, official languages are colonial languages and code of conduct is colonial languages are facing difficulties in the growth and development. The oppressed language is burden and measure hurdle in every activity. The colonial countries may be announced independent but the education, government and other measure conduct are still not free. Thus, from the secondary data obtained following conclusions can be drawn:

- The countries which have medium of instruction in their vernacular language have higher scope and opportunities for development and thus the standard of growth and development is growing significantly. As a result, the HDI and GNI rank are on high scale.
- The countries where oppressed language is still used on the primary bases are facing difficulties in the growth as the society as a whole couldn't function to add value to the economic growth. Despite of trying to develop by employing various means they are facing difficulties in raising the standard of living. The HDI and GNI ranks are low and miser.
- It is also seen that the countries where vernacular languages are used have less development but that is due to the fact that those countries are lacking in resources and utilities. The growth rate may be slow but quite significant.

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