**Literacy Rates Analysis: An International Comparison**

**Importance of Literacy**

The United Nations defines literacy rates as the percentage of the population aged 15 years and over, who can both read and write with understanding a short simple statement on his/her everyday life. The UN Sustainable Development Goals (SDG) focuses one of its goals on education. SDG Goal 4: Ensure inclusive and quality education for all and promote lifelong learning, targets education in every country and is a way to fight low literacy rates around the world.

**Economic Benefits**

- Higher wages
- Income increases
- People pay more taxes
- More opportunities for business
- Increase industrialization
- More skilled population
- Higher discretionary income

**Economic Costs**

- Operating costs to provide education are extensive
- Infrastructure cost

**Challenges for Developing Countries**

- Lack of funds
- Higher infrastructure costs
- Malnutrition
- Children constantly repeating the same grade
- Lack of access to rural areas
- Presence of child labor
- Corruption
- Teacher compensations are limited

**Social Benefits**

- Civic benefits
- Lower Crime Rates
- Trust and tolerance
- Happiness
- Healthier population
- Future oriented families
- Reduced Social Gap

**Data**

The data utilized was in the regression was retrieved from The World Bank, The World Factbook from the Central Intelligence Agency, United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics. and from UN Data. All the data used in this model is from the year 2011 since it had the largest number of literacy rates reported in the past ten years. 77 countries were analyzed.

**Independent Variables**

- GDP: Gross Domestic Product per Capita
- GOVEDU: Government expenditure on education, total (% of GDP)
- RFAID: Financial Aid, official development assistance and official aid received (% of GDP)
- RFDI: Foreign Direct Investment (% of GDP)
- TRADE: Openness index (% of GDP)
- DEV: Developing Countries (dummy variable)
- DEM*GOVEDU: Democracy*Government expenditure on education, total (% of GDP). (Dummy variable for Democracy)
- STUDENT_TEACHER: Student-teacher ratio

**Descriptive Statistics**

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<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Std. Deviation</th>
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**Correlation**

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**Conclusions**

- 65% of variation of literacy rates around the world can be explained by GDP, government spending on education, foreign aid, openness index and student teacher ratio.
- GDP is one of the most important factors for literacy rates. It affects literacy rates nonlinearly.
- GovEdu, RFDI, Trade, and Dem*GovEdu have positive relationships with literacy rates. This means that an increase in any of those variables will increase literacy rates.
- DEV, and STUDENT_TEACHER have negative relationships with literacy rates.
- The negative coefficient in front of RFAID probably means foreign aid is more likely to go to poor countries with low literacy rates.
- The model shows that Developing countries generally have 6% lower literacy rates.
- Globalization, through FDI and trade, may help to improve the literacy rates.
- Keeping the student-teacher ratio low helps students learn better and increases literacy rates.