

Cognitive Development through English Learning and Life Skills Education: Implications for Economic Productivity among Higher Secondary Students

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Abstract

The purpose of this study is to look into the role of English learning and life skills education in promoting cognitive development and improving the economic productivity in the future for higher secondary students in West Tripura District. This research aims to investigate the impact of the English language teaching of students' communication knowledge on their academic achievement and employment potential, and critical thinking and problem-solving skills, creativity, emotional intelligence and decision-making power developed by students in the English language teaching process. With the knowledge-driven economy and globalization, the mastery of English and life skills has become a necessity in order to be prepared for the world of work in Kenya and for improving socio-economic status. The study takes an empirical perspective to evaluate the connection between language learning, cognitive development and the productivity oriented competencies of higher secondary school students in the district. The results will give information to teachers, policy makers and curriculum planners on how to incorporate life skills and communicative English teaching approaches to build human capital and enhance the economic well being of the region's youth.

Keywords: Cognitive Development, English Learning, Life Skills Education, Economic Productivity, Higher Secondary Students, Communication Skills, Employability, Human Capital Development, Critical Thinking, West Tripura District.

Introduction

HRD has come to be one of the prominent factors influencing the economic development and social uplift of the 21st century. In the current era of globalization, better technology and knowledge-based economies, education has been expanded beyond just the delivery of educational knowledge to the training of the hands of the recipient with a variety of other skills/capabilities: cognitive skills and knowledge, communication skills, and adaptability to changing realities, life-oriented skills, and the like. English language learning (ELL), spirituality and life skills (LS) education are all linked to students' intellectual growth, and preparing students to have an active and fulfilled place in society. Building cognitive skills of SSC students is a policy issue in developing countries like India where education and economic development are interwoven. In an area like West Tripura District with diverse learning environment, however, English learning coupled with training in socio-economic skills can make a significant difference to students' learning outcomes as well as their socio-economic mobility, besides academic results and "employability."

English is the universal language of business, science, technology, commerce and higher education. The prior knowledge of English provides them to participate in national and international labor markets, and they can participate better in the information world. The higher secondary is a critical period of language learning because students use the language to facilitate their way of thinking and reasoning, analyze, comprehend, creativeness and solve problems during language learning. Listening, speaking, reading and writing tasks engage memory, interpretation, critical analysis and decision making skills in the learning of English. This makes English teaching help students' knowledge system continue to develop and expands students' innovation, interpersonal communication and employment prospects.

At the same time, the value of life skills education has been attracting increasing attention, which has been deemed an important component of a comprehensive education. Life skills are skills that are associated with interpersonal and PS skills, and which are relevant to the critical decision making of people in their daily lives and/or to dealing with everyday problems. Higher order skills such as critical thinking, emotional intelligence, communication, leadership, teamwork, self-awareness, stress management, adaptability have come into focus in the educational arena as well as in the workplace. At the higher secondary level, students' self-confidence and responsibility for their further education and career will be further enhanced through the emphasis given to Life Skills education. It also develops positive attitudes and ethical behaviour and social responsibility which results in overall human development.

Cognitive development and economic productivity is a close interconnection relationship. Higher cognitive and communicative competencies are believed to have higher economic value, in supporting economic activities, innovation, entrepreneurship and workforce effectiveness. These learners improve their academic achievements, would be more employable and would possess better capacity to acquire all skills in life because they acquire high level of language competence and life skills. Educating for cognitive skills can also increase national productivity through transfer of these skills into the emerging economies, because of an adaptable, fairly skilled workforce for cultural changes in industrial and technological needs. It can, therefore, be understood that investments in education in the field of English and in the field of life skills in learning is also an investment in the productivity of an economy and sustainable development.

Socio-economic differences, language diversity, infrastructure constraint and lack of quality educational resources are the challenges associated with education development in the context of Tripura especially the West Tripura District. The rural and semi-urban learners have challenges in communication in English and accessing life skills training. These restrictions can have an impact on their educational self-esteem and access to further and higher education, as well as their employment prospects. Thus, the study is very suitable to be conducted if the issue in this study is to understand how English learning and life skills education relate to cognitive development, which aims to enhance students' productive capacity in socio-economic development through education.

Taking this into account, the present study tries to analyse the changes in the participants' cognitive function in both English learning and LIFE skills learning and implications of the same for the economic productivity of higher secondary level of West Tripura district in Tripura. The purpose of this study is to investigate students' communicative competence, critical thinking skill, problem solving skill and interpersonal skills on their learning and career readiness. It is also planned to offer relevant information to teachers, curriculum developers and decision makers about the importance of learning centered and skill-based teaching in secondary education. The findings of the study emphasize the importance of Cognitive and Life oriented skills, adding to the general discussions of the Education – Employment – Global Human capital development of today's society.

Literature Review

In education psychology and social sciences, the notion of cognitive development had been widely mentioned across the globe as it is an important factor to influence the learning outcome along with the development of character and the productive economy. "Cognitive development" refers to the transformation and growth that happen in a child's thinking and learning, their skills in communication, analysis and problem solving. The cognitive theory put forth by Jean Piaget says that there are phases of cognitive learning, which develops in a

certain order that enables you to learn about the world. According to the sources there are 4 stages of cognitive development, explained by Piaget, that further elaborated by Cherry (2024): language learning, along with socialization and educational experiences play significant roles in the intellectual development of adolescents. The theory emphasises the significance of active learning environments, to develop analytical and reasoning capacities amongst students.

The study by Coleman et al. (1966) on Equality of Educational Opportunity definitely highlighted the impact of education on cognition. Findings from the study indicated that the family background, school environment and quality of educational resources is very significantly related to students academic achievement and intellectual development. The results showed that inequality in education might be a problem related to mental development and future socio-economic development, particularly for the disadvantaged.

There has been a growing body of research that has explored the link between poverty and cognitive functioning. When examining evidence from the UK Millennium Cohort Study, Dickerson and Popli (2015), were able to show children living in persistent poverty worldwide had sub-optimal cognitive outcomes and educational achievement. The study brought to the forefront that socio-economic deprivation is one cause for low resources to support quality teaching and learning and for this, there is an underachievement in the acquisition of the language and intellectual development. Similarly, Duncan and Brooks-Gunn (2003) identified several adverse effects of poverty at home on child development, adverse home learning contexts, stress and less parental engagement. They showed that economic disadvantage is associated with a disadvantage in the areas of educational outcomes and psychosocial functioning.

With this view, Duncan, Magnuson, and Votruba-Drzal (2017) argued that poverty should be viewed as a multidimensional construct that directly affects developmental outcomes for cognitive, emotional, and behavioral processes. They discovered that developmental differences could be completely eliminated by early education programs and nurturing and learning arrangements that are influenced by education as a factor affecting future outcomes of essential productivity.

A great effect on cognitive development is also influenced by environmental and social factors. The psychosocial stimulation, parental support, and exposure to education and nutrition were the three factors identified by Drago et al (2020) in their study in South Africa and Tanzania which targeted rural areas as contributing to child's cognitive development. Completion of the study revealed a higher level of cognitive functioning and learning capacities among children in "pro-supportive" educational and social environments. It's important to note that these findings correspond well with the Ecological Systems Theory suggested by Urie Bronfenbrenner and mentioned by Egbert and Roe (2024). The theory is that, this cognitive development is driven as a result of interactions among individuals and the various environmental systems including family, school, peer groups and society. Therefore, participating in education and involvement in the family are essential elements in the development of the intellect and emotions.

The involvement of parents/parents and family engagement has also been highlighted as key enablers of education development. Parent education workshops can promote better parent-school communication, better learning support at home, and have a positive effect on students learning development (Edelytics, 2024). After active participation by parents, students will be able to learn and be more confident, fluent with language and motivated about studies.

Engle and Black (2008) identified socio-economic factors that make it more difficult for children to receive sufficient cognitive stimulation, sufficient educational support and sufficient opportunities to learn languages. They were interested in how quality education, food and psycho-social needs can contribute to improved intellectual development. Similarly, Engle et al. (2011) suggested strategies to mitigate developmental inequalities which can be adopted in low and middle income countries are early childhood education, life skills education and education policy development. Skill focused education has been reported to increase the future skills of students in Terms of cognitive skills, communication skills and employability.

The literature reviewed suggests that educational experiences, socio-economic factors, family environment and the supports received in the psychosocial sphere makes an impact on cognitive development. It is evident that the

English language learning and life skills education is a driving force to enhancing communication, critical thinking and problem-solving skills among the learners. Most of the studies thus far have focused on poverty, environmental impacts and educational inequality without considering cognitive achievement and economic gains of the students coming from the West Tripura District who study English with life skills education. Therefore, the purpose of this present study is to achieve this gap in research by exploring the function of students' cognitive competences developed in the course of learning English and training in life skills in promoting the students' learning progress. In this context, the present study seeks to examine the importance of cognitive competencies in English and life skills training process in order to facilitate their learning progress and to see how they will enhance their future competence in the economic sector.

Objectives of the Study

1. To examine the impact of English learning on the cognitive development of higher secondary students in West Tripura District.
2. To analyze the role of life skills education in enhancing critical thinking, communication skills, problem-solving ability, and decision-making among higher secondary students.
3. To study the implications of cognitive development through English learning and life skills education on the future economic productivity and employability potential of higher secondary students.

Hypothesis

Null Hypothesis (H₀): There is no significant impact of English learning on the cognitive development of higher secondary students in West Tripura District.

Alternative Hypothesis (H₁): English learning has a significant positive impact on the cognitive development of higher secondary students in West Tripura District.

Research Methodology

The present study is designed based on descriptive and analytical research in order to study the effect of English learning and English life skills education on cognitive development, economic productivity of the Higher Secondary students of the West Tripura District. The study uses both primary and secondary data source. The primary data were obtained using a structured questionnaire in the higher secondary schools (Government and private schools) in the selected district with the students of the higher secondary schools. The questionnaire utilizes Likert scales to capture how proficient their English language skills, communication abilities, critical thinking, decision-making, problem-solving, emotional intelligence and perception of employability and productivity. Secondary data come from books, journals, research articles, government reports, educational policy documents and online academic sources that pertain to Cognitive Development, Language learning and Life skills education. The research method used is quantitative research method and random stratified sampling is used to select students with different socio-economic status, gender, and in different schools. Appropriate statistical tools are used in the analysis of the collected data using percentage analysis, mean, standard deviation, correlation and regression analysis to find the relationship between English learning, LSE and cognitive development of the SS students. The outcomes of this study will inform curriculum developers, policy makers, and teachers in developing better educational strategies to better educate students and develop their mental and economic capabilities.

Descriptive Statistics for the Hypothesis

Variables	N	Mean	Standard Deviation	Minimum	Maximum
English Language Proficiency	200	4.12	0.68	2.10	5.00
Communication Skills	200	4.05	0.72	2.00	5.00
Critical Thinking Ability	200	3.96	0.75	1.90	5.00
Problem-Solving Skills	200	4.08	0.70	2.20	5.00
Cognitive Development Score	200	4.10	0.66	2.30	5.00

The quantitative statistical analysis of the data in this question was found to be significant with the help of descriptive statistical analysis in the West Tripura District where students are in higher secondary class and learning the English language. The students' perceptions of the role of English education in developing students' intellectual ability and skills are positive as reflected in the mean scores obtained in each skill of English language proficiency (4.12), communication skills (4.05), critical thinking ability (3.96), problem-solving skills (4.08), and overall cognitive development (4.10). English learning can enhance students' comprehension ability, logical thinking ability, analytical thinking ability and their effective communication skills, all of which are important parts of cognitive development, as indicated by the relatively high mean values. In addition, the standard deviations (0.66 - 0.75) suggest a moderate amount of variance in responses, suggesting that it was consistent to the level of student's opinions across varying educational backgrounds. The results suggest that L2 instruction in English serves to consolidate students' language proficiency and also to aid their higher order thinking skills development, which is essential for future success on further education studies and employment. Hence, the alternative hypothesis that English learning has significant positive effect on the cognitive development of higher secondary students in the district was accepted.

Simple Linear Regression Analysis

Dependent Variable: Cognitive Development

Independent Variable: English Learning

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.742	0.551	0.548	0.412

ANOVA Table

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	41.286	1	41.286	243.117	0.000
Residual	33.628	198	0.170		
Total	74.914	199			

Coefficients Table

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
(Constant)	1.284	0.214		5.998	0.000
English Learning	0.684	0.044	0.742	15.592	0.000

The results of this simple linear regression clearly showed that learning English language has a significant influence on the cognitive development of the students of Higher secondary in West Tripura District. The correlation coefficient ($R = 0.742$) indicates a very strong positive correlation between English learning and students' cognitive development: The higher English learning capacity, the better cognitive development. When calculating the coefficient of Determination ($R^2 = 0.551$), learning English accounts for 55.1 of the variance of student's cognitive development, so it can be concluded that learning English has a significant contribution in supporting student's intellectual growth. Based on the ANOVA results, it can be seen that the model presented is statistically significant due to the F value (243.117) is smaller than the F value “accept” (10.237) at 0.05 significance level. Besides, the regression coefficient result of $B = 0.684$ shows that there is a positive relation between cognitive development and the learning of English so that if there is an increase of 1 unit in the learning of cognitive development, then there will be an increase of 0.684 unit in the learning of English. It is high standardized beta coefficient of 0.742 for English learning that shows the high predictive power of English learning with cognitive ability of students. This value of significance is less than 0.05, thus we reject the null hypothesis, and accept the alternative hypothesis. English language learning, therefore, it helped to come to the conclusion that the importance of English language learning was very significant towards the enhancement of cognitive competency and intellectual development of the district higher secondary students.

Overall Conclusion

The present study findings indicate that education system that is based on English is effective and important for higher secondary students to secure cognitive development and productivity in the future in West Tripura District. These results indicate that students learning English language actually improves their communication skills, analytical thinking, reasoning, creativity and problem-solving skills significantly. In English language learning, the descriptive analysis indicates that the students' English is significantly related to the development of their cognitive skills, since the students who learn English well have higher cognitive abilities. The regression analysis result indicates that, there is very high positive correlation between English learning and cognitive development skills of students, which means that students acquired higher intellectual and academic ability while learning English. The study further indicates that life skills education helps to foster emotional intelligence, decision making skills, adaptability, team working as well as self-confidence which are crucial for employability and socio-economic growth in the knowledge based economy.

The regression analysis has revealed that this learning of English is significantly associated with cognitive development as a large amount of variance in cognitive abilities has been accounted for by learning English. The results in this study confirm the idea of combining language instruction and skills training in life skills with the goal of human capital formation and productivity boost. Improvement in educational outcomes and employability of students in different socio-economic conditions achieved through embedding of communicative English teaching approach and communicative English as a skill in Tripura's educational development can be noticed.

As a result of the study the roles of improving English language instruction in the schools and giving well designed life skills education at the higher secondary level by the teachers of the schools, policy makers, curriculum designers are highlighted. Schools should use a learner-centred and activity-based approach which fosters critical

thinking, skills of cooperation, creativity and effective communication. Specially attention must be given to the students belonging to a rural area and weaker economic sections and should take efforts to eliminate the gap in education and give equal opportunity to all the students to attain cognitive learning and professional growth. The result of the overall study shows that cognitive development in the learning method of English and education in accounting life skills for higher secondary student is considered good support for academic success, competitive work and economic productivity.

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