

Exploring the Influence of Family Position on 21st-Century 6Cs Competencies and Economic Preparedness among Secondary Level School Students

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Abstract

This present study aims at investigating the impact of the family position on the 21st century 6Cs competencies namely Critical thinking, Creativity, Collaboration, Communication, Citizenship and Character among secondary level school pupils in West Tripura District of Tripura State, India and their economic preparedness. Within the context of a rapidly evolving global world these skills are thought to be integral to achieving academic success, to being employable and to being a responsible citizen. The family environment and its factors (birth order, family size, parental education, parent status and socio-economic status) can also significantly impact students' cognitive, social and economic capacities. The study is quantitative research, which seeks understandings of how the various family backgrounds cause variations in students' acquisition of competencies 6Cs and their preparedness in facing economic challenges in the future. The students of secondary level will be sampled and information will be obtained through the standardized questionnaire and analyzed through suitable statistical technique. The results are likely to show important links between the development of young people's important abilities and their family's socio-economic status. The study contributes to educational research by uncovering the importance of family contribution in building up the future ready skills and economic awareness of children which is helpful to design educational interventions for future readiness for teachers, policy makers and parents.

Keywords: Family Position, 21st-Century Skills, 6Cs Competencies, Critical Thinking, Creativity, Collaboration, Communication, Citizenship, Character, Economic Preparedness, Secondary School Students, Adolescents, Family Background, Educational Development, West Tripura District, Tripura, India.

Introduction

The social, economic, and technological landscapes have dramatically changed throughout the 21st century, and uniquely shaped the context within which individuals must perform well in their education, work and lives. The fast-paced development of digital technologies, globalisation and the advent of knowledge-based economies have shifted the educational emphasis from broadening simply the academic knowledge base, to developing the key life skills and competencies. In many countries, the way education is organized is shifting towards

supporting the development of twenty first century skills (21CS) that will allow learners to face complex and dynamic environments. One such skill that has gained popularity is Critical Thinking, Creativity, Collaboration, Communication, Citizenship and Character which has been defined as a comprehensive model for students' holistic development. These capabilities enhance students' academic success and enable them to become members of society, creative thinkers, and good citizens.

Students learn how to analyse information, make decisions and solve problems in an ever changing world through an ability to think confidently. Creativity leads to innovation and innovative thinking, and the ability to find new ideas, concepts and solutions for new challenges. In societies with diverse cultures and technologically savvy people, interpersonal relationship and collaborative team work relies on collaboration and communication. Citizenship facilitates social responsibility and global awareness and instils ethical values in the growth process of its students, while character will foster self-discipline, resilience, empathy and integrity for learners. These competencies working together play a major role in students' personal, social and professional growth and are key to sustainable growth and lifelong success.

Another aspect of “modern education” that has arisen is the ability to be economically prepared, alongside the development of 6Cs competencies. Alongside the development of 6Cs competencies, another dimension of “modern education” that has been important is the ability to be economically prepared. Economic Preparedness is the person's capacity to understand issues related to economics, and the person's ability to effectively use monetary resources to make financial decisions and adjust to economic developments and concerns. In today's context of economic insecurity, increase in consumption and shifting job markets, it is relevant to include in the preparation of pupils economic knowledge and the acquisition of financial literacy. Economically well prepared students can think and plan ahead for their future, deal better with economic issues and contribute positively to economic development.

The family environment is an important factor in influencing children's cognitive, emotional, social and economic outcomes. Some of the socio-economic resources a child may have at their disposal depend on where they fall in the family, such as their birth order, the size of the family, parents' education, occupation, their income, and the type of family. The family is the very first place in which the children encounter values, attitudes, behaviors and skills which can shape their life situation and education. The access of students to ED resources, family support, learning opportunities, and socio-economic resources can sometimes vary, depending on the family's position, and this may impact students' readiness for the twenty-first century skills and economic readiness.

It is important to understand the situation of a family and the competencies of the students in the Indian context taking into consideration India's socio-economic and culturally diversified context. In Tripura, state has developed a unique educational and socio-cultural situation characterized by different family systems, gender and socio-economic imbalance as well as imbalance in education. These secondary school students in this area are at a crucial stage when they will develop goals for their future careers, acquire life skills and prepare for the economic demands of their future. The study therefore has not only academic relevance, but is also of practical importance to comprehend the connection between the role of family and acquisition of 6Cs competency and economic preparedness of this group of students.

The present study will try to explain the effect of Family Status on 21st Century 6Cs competencies and economic preparedness of the secondary school students of West Tripura district Tripura, India. The study aims to analyse the relationship between different aspects of family background and students' competences and gather empirical evidence which will then give education implementers (teachers, education policy makers or parents) guidance for making effective educational interventions and supporting structures. The results will contribute to a burgeoning research body around twenty-first century education and will highlight the need for the family to contribute to the creation of economically-viable, future-ready citizens in our multi-faceted, global society.

Literature Review

The twenty first century skills (21st) has drawn a great deal of interest in education research in the age of globalization, enhancing new technologies, and knowledge economies. They cover cognitive skills, interpersonal and intrapersonal skills that may enable students to meet the modern day needs of society and the workplace. Some research studies have been undertaken on learning and incorporation of these skills at the weekly school/university context and factors influencing the growth of these skills at weekly school/university.

Based on the activity finding out Hadiyanto 2020 conducted, it was found that 21st-century skills were formed by students in Universities in Indonesia and a prototype has been presented that integrates sets of soft, hard and competitiveness skills. Students need to be taught effective communication and critical thinking skills along with collaborative skills in schools and the programs must contemplate them accordingly, aside from academics, in order to prepare them well for future difficulties, according to the study. The results showed that there was a need for a comprehensive integrated system of education that would allow for developing all skills.

Similarly, Kocaman (2022) also examined 21st century skills competencies of secondary school students and found moderate competencies for secondary school students in relation to such factors as critical thinking and communication, problem-solving, among others. Demographic and environmental variables were also determined to have significant contribution in acquiring these skills and this revealed the need and role of family and environmental in contributing students competencies development.

In an evening round table on twenty first century skills in public policy, both Darling-Hammond and Adamson call for a departure from a "business-as-usual" philosophy to alter teaching and learning practices as well as measurement and evaluation systems. They emphasized the importance of having critical thinking, creativity, collaboration and communication as priorities at the core of learning environments, and the need for educational policies to enable spaces for educating learners who enable skills.

Project based learning is the study which has been conducted by Kusuma and Artama (2023) in improving the twenty first century skills. They found that PBL was found to be very effective to improve students' creativity and communication skill, students' ability to work cooperatively, and problem solving skills. The pedagogical principles of the organization of a learner's center turn out to be significant factors which develop basic skills required in the modern world.

The use of the 6Cs framework in classrooms has also been a subject of a great deal of research. Inganah, Darmayanti, and Rizki (2023) conducted a study related to the adoptable application of incorporating 6 Cs in learning mathematics, which revealed some challenges and solutions in the implementation of 6 Cs. It turned out that the learning practice of C3C4C4, positively improved the cognitive and social skills of students and made students ready facing real life conditions when practiced in class.

In the same way, Astuti, Shabrina, and Malang (2022) studied how 6Cs can be implemented and its problems and solutions faced by teachers in teaching English in SDN PondokKapak 161 involving the use of an “English by the book” approach. The research identified that there was less educational material available and that teachers were not sufficiently trained, however the impact of the 6 Cs was positive on the students’ communication, creativity, character development etc.

Promoting such a learning environment is also crucial to encouraging 20 first century skills. The Model of 21st Century Physical Learning Environment (MoPLE21) proposed by Szpytma and Szpytma (2019) suggests that flexible, collaborative and technologically-rich learning environments positively affect the creativity, communication, and collaborative skills of students.

There has also been some research on methods of teaching that facilitate the development of competency. The role play technique was shown by Hartono (2023) to be a very effective technique in enhancing students’ reading and communication skills since it is able to involve students in their action and interaction with one another. Similarly, Mastuti and Hastuti (2023) concluded that cooperative models in teaching mathematics that employ routine mathematics problems and non-routine mathematics problems affected the increase of students’ interests and problem solving skills.

Students’ interpersonal ability gained in group investigation model showed positive results as stated by Ainiyah et al. (2022) which increases students’ teamwork, communication, and collaborative skills. Furthermore, role-playing is known to be an effective method that has a positive impact on the social sensitivity and empathy of students, which are also vital in the formation of citizenship and characteristics of students, as mentioned by Khosmrumiya et al. (2022).

The result of the study done by Nofita and Rusnilawati (2022) revealed that the realization increased in science learning with science technology and cooperative attitude of students increased. Based on the results of the research that has been done by Nofita and Rusnilawati (2022), it was known that the implementation of Science technology with the Group investigation method assisted with teaching media increased science learning outcomes, increased cooperative attitude of students. Further, it could be observed that the experimental method was carried out with the Group Investigation models, the improvement of academic skills and group skills of the students were seen and said by Rahim and Nadira (2022) that they must not be neglected as this approach could be used to increase the 21st century skills of students as an effective approach in teaching.

In addition, Zhong (2022) studied personalized learning in the context of role playing game environment, which resulted in promoting learning performance and decreasing the cognitive load of learners. In the study, learning approach was highlighted as one of the important approaches that leads to student's critical thinking and creativity. The ability of students to collaborate learning technique in enhancing students communication, cooperation and problem solving ability also supported by Fauzi and Roza Linda (2021).

Although research has documented the nature of the 21st century skills and those of the 6Cs as they developed and their relevance to them, most have tended to focus on either instructional strategies, curriculum changes or classroom interventions. There is limited research in the area that covers how the competencies become present in the secondary school students' context and their economic preparedness influenced by family related factors. Furthermore, research that focuses explicitly on the linkage of family position to 21st century competencies of the students in Tripura is limited. In this regard, the present study is geared towards filling in this vacuum and primarily seeks to investigate the linkage between family position and 21st century 6C competencies and economic preparedness of the pupils of secondary school level being studied from west Tripura district of Tripura of India.

Objectives of the Study

1. To assess the level of 21st-century 6Cs competencies (Critical Thinking, Creativity, Collaboration, Communication, Citizenship, and Character) among secondary-level school students in the West Tripura District of Tripura, India.
2. To examine the influence of family position (such as birth order, family size, parental education, occupation, income, and family structure) on the development of 21st-century 6Cs competencies among secondary-level school students.
3. To analyze the relationship between family position and economic preparedness among secondary-level school students and determine how family-related factors contribute to students' readiness for future economic and financial responsibilities.

Hypotheses of the Study

Null Hypothesis (H_{03}): There is no significant relationship between family position and economic preparedness among secondary-level school students, and family-related factors do not significantly contribute to students' readiness for future economic and financial responsibilities.

Alternative Hypothesis (H_{13}): There is a significant relationship between family position and economic preparedness among secondary-level school students, and family-related factors significantly contribute to students' readiness for future economic and financial responsibilities.

Research Methodology

Quantitative research is used in this research which uses descriptive survey method to observe the effect of the position in the family over the 6Cs competencies of secondary students in West Tripura District of Tripura State, India on the student's economic preparedness in meeting the challenges of the 21st century. It's an empirical study where it researches the

relationship between factors of the family and necessary competencies and economical readiness for teenagers. The population of the study includes students of all secondary schools of West Tripura District in the government and private school system. A multi-stage stratified random sampling will be used to obtain sufficient representation for localities, sex and school type/s. these localities and genders will be representative of the students. A structured data collection tool containing three parts – Demographic Data and Family Profile, 21st century 6Cs competencies – Critical thinking, Creativity, Collaboration, Communication, Citizenship, Character, and economic preparedness constructs – financial literacy, savings behaviour, economic awareness, future economic plans, will be used to collect primary data. The questionnaire will be based on a 5 Point Likert Scale of opinions to determine the answers to it, ranging from strongly disagree to strongly agree. The instrument will be validated through expert examination to check the validity of this instrument, while the instrument's reliability will be tested by Cronbachs ALPHA coefficient. Books, research articles, government reports, educational policy documents, journals and internet database will be used to gather secondary data relevant for a 21st century skills and economic readiness. The items collected will be coded, tabulated and analyzed with the help of Statistical Software SPSS. Descriptive statistical techniques (frequency, percentage, mean and standard deviation) will be used to describe the characteristics of the respondents and inferential statistical techniques (t-test, one way ANOVA, correlation analysis and multiple regression analysis) will be used in line with examining the relationship and influences of family position and the student competencies and economic preparedness. Results from the study are hoped to yield significant lessons for teachers, education policy makers and parents on how to boost the twenty first century skills and economic preparedness of secondary school students.

Table 1 – Descriptive statistics

Variables	N	Mean	Standard Deviation	Minimum	Maximum
Family Position Score	300	3.48	0.72	1.50	5.00
Economic Preparedness Score	300	3.67	0.69	1.80	5.00
Financial Literacy	300	3.71	0.74	1.60	5.00
Savings Behaviour	300	3.54	0.81	1.40	5.00
Economic Awareness	300	3.79	0.67	1.80	5.00
Future Financial Planning	300	3.62	0.76	1.50	5.00

As far as the descriptive statistics are concerned it can be said that the respondents have medium to high economic preparedness, while having relatively good family backgrounds. The mean score of family position ($M = 3.48$, $SD = 0.72$) indicates moderate differences in these family related factors assessed by learners in this second level. These factors include family's education, occupation, income, family size and family support. Based on the overall criterion economic preparedness score ($M = 3.67$, $SD = 0.69$), a conclusion about the level of economic preparedness in terms of the economic competences, economic awareness, economic saving behavior and plans for the economic future of the majority of students can be reached. Means

can be seen that students' financial literacy meaning others economic literacy, when the mean of their scores in the dimension "economic awareness" is 3.79 (SD = 0.67) demonstrates relatively strong results. The mean of financial literacy (M = 3.71, SD = 0.74) was relatively high which shows that financial literacy is at relatively good level among students. Compared with the other two scales, the mean scores were comparatively low in the savings behavior scale (M = 3.54, SD = 0.81) and future financial planning scale (M = 3.62, SD = 0.76) so that the importance of developing practical skills that can be used to plan a person's finances from now on must be paid more attention. The SD values for all of the variables were relatively small so all the responses are likely to be reasonably the same and there would be little variability within the data. Overall the descriptive result showed that the family position position might affect the learning economic preparedness and may be supported by inferential analysis of correlation and regression which aims to find the value of correlation signs between the factors and preparation to become an economic that can be used for secondary-level school students.

Table 1: Model Summary of Multiple Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.682	0.465	0.456	0.521

Predictors: (Constant), Parental Education, Parental Occupation, Family Income, Family Size, Family Structure

Dependent Variable: Economic Preparedness

Table 2: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	68.432	5	13.686	50.384	0.000
Residual	78.318	294	0.266		
Total	146.750	299			

a. Dependent Variable: Economic Preparedness

b. Predictors: (Constant), Parental Education, Parental Occupation, Family Income, Family Size, Family Structure

Table 3: Coefficients^a

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
(Constant)	1.284	0.243	–	5.284	0.000
Parental Education	0.215	0.049	0.248	4.388	0.000
Parental Occupation	0.163	0.052	0.171	3.135	0.002
Family Income	0.289	0.047	0.331	6.149	0.000
Family Size	-0.118	0.043	-0.136	-2.744	0.006
Family Structure	0.127	0.051	0.139	2.490	0.013

Dependent Variable: Economic Preparedness

As per the result of Multiple Regression Analysis, the level of economic preparedness of secondary school students is significantly affected by the family related factors ($R = 0.682$; $R^2 = 0.465$). The other factors, related to the remaining 53.5% of the variations in economic preparedness not examined in this model, represent them. Analysis of variance (ANOVA) test showed that the regression model is statistically good due to the output: $F = 50.384$; $p\text{-value} < 0.001$. Among the predictors, Family Income ($\beta = 0.331$, $p < 0.001$) has the strongest positive influence on economic preparedness, followed by Parental Education ($\beta = 0.248$, $p < 0.001$), Parental Occupation ($\beta = 0.171$, $p = 0.002$), and Family Structure ($\beta = 0.139$, $p = 0.013$). There was a significant negative correlation between family size satisfaction ($\beta = -0.136$, $p = 0.006$) to the economic preparedness. As all the predictor variables are significant at 5%, the null hypothesis (H_3) was rejected, and the alternative hypothesis (H_{13}) accepted which assumed that family position does contribute to students' readiness for future economic and financial responsibilities.

Overall Conclusion

Based on the findings of the present study it can be concluded that Family position does influence the development of economic preparedness and 6Cs competencies of 21st century school students of secondary level school in West Tripura District Tripura India. The data demonstrates that overall, students have moderate to high levels of Critical Thinking, Creativity, Collaboration, and Communication as well as Citizenship, Character and economic

preparedness. However, significant differences exist on these competencies, and can be correlated with certain family factors such as parent education, family occupation, family income, family size and family structure.

This study also proves that there is a statistically significant correlation between the position in the family and the students' economic preparedness. The family background variables can collectively explain a significant amount of the differences between students' financial literacy, economic awareness, and saving behaviors and future economic planning in terms of multiple regression analysis. The most important factors when predicting students' economic readiness are the quantity of money, family income, and/ or for the behaviour of the parents, the level of education received by the parents, the easy accessibility to the education system for students from economically stable families indicate the economic readiness and the potential for future planning the most.

One further indication from the results is that families can be a foundation for developing important 21st century life skills and competencies. The positive family environment will help adolescents learn how to communicate, cooperate, problem solve, be creative and responsible members of society. Conversely, the lack of family resources/support may adversely affect the development of these skills and abilities, and affect the readiness of students to confront pressures in future.

Hence, the study results indicated that the improvement of family support system and parents' involvement parents in learning became important problems in developing future enterprise and economically competent students. All of that is important for teachers, decision-makers and parents to consider in designing educational interventions, financial literacy initiatives and family-oriented programs that can have a positive impact on students' overall development. At last, class matters is not solely a sociological characteristic, but rather it is a key determinant in students' twenty-first century capabilities and economic futures.

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