



IMPACT OF MATURITY ON ACADEMIC PERFORMANCE OF SECONDARY SCHOOL STUDENTS IN ETHIOPE EAST LOCAL GOVERNMENT AREA OF DELTA STATE

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Abstract

This paper examined the impact of maturity on academic achievement of secondary school students in Ethiopie East Local Government Area of Delta State. Research questions were formulated in line with the set objectives of the study. The paper adopted a descriptive survey research design. The population of the study comprised all the 5,200 senior secondary school students (SS1 to SS3) in public secondary schools in Ethiopie East Local Government Area of Delta State. Purposive sampling technique was used to select 371 students for this study. Questionnaire was used as the instrument for data collection. The data collected were analyzed using descriptive and inferential statistical methods. The study revealed a statistically significant relationship between students' chronological age and their academic performance with the grand mean score of 3.1. Younger students within a grade level generally demonstrated better adaptability and motivation than their older counterparts, who often faced issues such as peer comparison and diminished confidence. The study further found that emotional and cognitive maturity play critical roles in students' academic success. Students who could regulate their emotions, cope with academic stress, and maintain focus during examinations achieved higher academic scores. These were evident from the grand mean score of 3.2. Based on the findings of the study, it is recommended that schools should integrate emotional intelligence and maturity programs into the curriculum to help students build self-awareness, empathy, and stress management skills. Also, guidance counselors should work closely with students to address issues related to emotional imbalance, social challenges, and cognitive difficulties that may affect learning.

Keywords: *Maturity, academic achievement, secondary school, and students.*

Introduction

Academic accomplishment is a composite phrase that relates to both learners ability and performance. It has several dimensions; it is intrinsically connected to the evolution of human beings and the physical development of cognitive, emotional, and social skills; it is representative of the kid as a whole; it is not limited to a single event, but rather it occurs over time and at various levels throughout a student's academic and professional life. The term "academic achievement" according to McClelland (2015) refers to the observable and measurable behaviour of a student in a particular environment over a period of time, as mentioned above. For example, a student's academic achievement in a subject taught in school, such as Economics, is determined by observable and measurable behaviour that can be seen and measured at any time during or after a course of instruction.

According to Njoku (2021), academic performance among secondary school students remains a key concern for educators, parents, and policymakers, especially in Nigeria where standardized education reforms aim to improve outcomes. However, despite access to the same curriculum and instructional methods, students often perform differently, raising questions about underlying factors influencing performance. One such factor is the maturity level of students, which includes cognitive, emotional, and social maturity not just chronological age.

Maturity refers to the psychological, emotional, and intellectual development that enables individuals to understand their environment and make sound decisions. Maturity whether emotional, social, or cognitive, plays a pivotal role in the academic performance of secondary school students. Students at the same grade level may differ in their maturity levels, and such differences can influence their concentration, discipline, comprehension, and general attitude toward learning (Ibrahim & Arshad, 2015). In Ethiopia East Local Government Area, varying academic performance among students has prompted a need to investigate if and how maturity is a factor. Maturity may not always align with chronological age; thus, understanding its implications for learning outcomes is essential.

Cognitive development, as described by

Piaget's theory of cognitive development (1952), outlines stages through which children progress as they mature mentally. Secondary school students typically operate within the formal operational stage, where abstract thinking and logical reasoning are expected. However, delays in reaching this stage may affect academic tasks that require problem-solving, planning, or critical thinking. When it comes to secondary education in Nigeria, especially in the Ethiopia East Local Government Area of Delta State, having a good grasp of this connection is necessary in order to design policies and strategies that are beneficial for education.

Statement of the Problem

Despite equal access to curriculum and instruction, students in the same classroom exhibit varying academic achievements. This inconsistency raises questions about underlying factors such as maturity level, especially as some students may excel while others struggle despite similar educational exposure. The problem is whether maturity significantly contributes to these variations in academic achievement.

Secondary school students in Ethiopia East Local Government Area exhibit varying levels of academic performance, with some consistently excelling while others struggle despite similar educational opportunities. While factors such as socioeconomic status, teaching quality, and family support have been extensively studied, the role of student maturity in academic achievement remains underexplored in this specific context.

Academic achievement is a key indicator of educational progress and student development, yet wide disparities in student performance continue to exist among secondary school students, even when they are taught under the same conditions and by the same teachers. In Ethiopia East Local Government Area, for instance, teachers and school administrators have observed that students with similar instructional materials, classroom exposure, and teacher support often record significantly different academic outcomes.

One such factor that has received little empirical attention at the local level is student maturity which encompasses not only chronological age but also emotional, social, and cognitive development. While some students are

mentally and emotionally prepared to cope with academic demands, others may lack the maturity to manage stress, focus, or take responsibility for their learning. Emotional and cognitive maturity can significantly affect students' academic behavior, decision-making, and overall performance.

Objectives of the Study

The overall aim of this study is to critically examine the impact of maturity on academic achievement of secondary school students in Ethiopie East Local Government Area of Delta State. Hence, the study will be channeled to the following specific objectives;

1. Determine the relationship between chronological age and academic achievement among secondary school students.
2. Examine the effect of emotional and cognitive maturity on students' academic achievement.

Research Questions

To guide the study, the following research questions were formulated:

1. What is the impact of chronological age and academic achievement among secondary school students?
2. How does emotional and cognitive maturity impact students' academic achievement?

Significance of the Study

This research is intended to investigate the impact of age on the academic performance of pupils in schools, considering the substantial financial commitment that has been made by the many stakeholders. This research is important because it examines maturity, which is a vital but sometimes ignored quality that has an impact on academic success. Understanding how emotional, cognitive, social, and chronological maturity affect learning will benefit multiple stakeholders in the education system. The findings will help teachers recognize that students' academic challenges may not always stem from laziness or lack of intelligence, but from developmental immaturity. This insight can encourage the adoption of more flexible, student-centered teaching methods that cater to varied maturity levels. The study will provide empirical evidence to support the design of school policies that go

beyond age-based class placement. It could lead to the introduction of maturity assessments as part of academic planning and student support services.

The study will enlighten parents about the importance of supporting their children's emotional and social development alongside academics. Understanding their child's maturity level can help improve communication, reduce unrealistic expectations, and provide proper guidance at home.

The findings will help students better understand themselves and possibly encourage personal development in areas where they may be lagging, such as emotional control or social interaction.

This study will serve as a reference for researchers interested in adolescent development and academic performance, especially within the Nigerian educational context. It opens the door for further studies on non-academic factors affecting learning.

Literature Review

Introduction

Maturity represents a multifaceted construct encompassing various developmental domains that influence adolescent behavior and academic performance. Maturity transcends simple chronological age and involves complex interactions between biological, psychological, and social factors. This review focuses on impact of maturity on academic performance of secondary school students.

Concept of Maturity

Maturity refers to the stage of full development in emotional, cognitive, and social domains. As Kolo & Gambo (2016) noted, maturity enables individuals to make informed decisions, understand others, and act with responsibility. It is not strictly determined by age, as two students of the same age may display different levels of reasoning, emotional control, or social interaction. Maturity can be broken into four components:

Chronological maturity: Simply the age of the individual. This refers to the individual's actual age in years. Traditionally, schools use age as a basis for grade placement, assuming that older students are more mature. However, this

assumption is increasingly challenged. Popham (2017) argues that chronological age is a poor predictor of a student's behavior or academic readiness, as maturity varies greatly among individuals of the same age group.

Emotional maturity is defined as the capacity to comprehend, control, and express one's emotions in a manner that is acceptable while also retaining emotional stability while during stress. Emotional maturity as including self-awareness, self-regulation, motivation, empathy, and social abilities.

Social Maturity encompasses competence in interpersonal relationships, communication skills, social responsibility, and the ability to navigate complex social situations. Bandura's (1977) social learning theory emphasizes how social maturity develops through observational learning and social interaction. Students with higher social maturity tend to exhibit better classroom behavior, peer relationships, and collaborative learning abilities.

Cognitive Maturity involves advanced thinking abilities, metacognitive awareness, problem-solving skills, and the capacity for abstract reasoning. Piaget's (1952) cognitive development theory provides insight into how cognitive maturity progresses through distinct stages, affecting learning capacity and academic performance. Cognitively mature students demonstrate superior critical thinking, academic problem-solving, and learning strategy utilization.

Physical Maturity relates to biological development, body awareness, and the physiological changes associated with adolescence. Research suggests that physical maturity affects self-concept, peer relationships, and academic participation, though it's direct impact on academic achievement remains less clear than other maturity dimensions (Omoegun, 2020).

Concept of Academic Achievement

Academic achievement refers to the measurable performance outcomes of a student in formal educational settings. It typically reflects how well a student has mastered the content of a subject or curriculum over a period of time, as determined by standardized tests, classroom assessments, term results, and overall grade point averages

(GPA). The degree to which a student accomplishes educational objectives is referred to as academic accomplishment. Test scores, grade point averages (GPAs), and other performance evaluations are often used to quantify it. According to Omoegun (2020), there are a number of aspects that determine one's level of achievement, including motivation, IQ, environment, and, with increasing frequency, maturity.

Influence of Emotional Maturity on Academic Achievement

Emotional maturity helps students manage stress, maintain focus, and stay motivated. According to Adeyemo (2017), emotionally mature students tend to have better study habits, interpersonal skills, and academic success. Emotional maturity is a critical component of a student's overall development and has a significant influence on how they perform academically. It is defined as the capability to comprehend, regulate, and communicate one's emotions in an acceptable manner, in addition to the capacity to react to the emotions of other people in a way that is both constructive and balanced. In the school context, emotionally mature students are more likely to manage stress, control impulsive behavior, remain focused in class, and engage productively in social and academic settings (Nnamdi, 2019).

According to Lapsley & Woodbury (2016), emotional maturity significantly contributes to academic success among Nigerian secondary school students. His study found that students who exhibited emotional self-regulation, resilience, and self-awareness performed better than those who were easily frustrated or emotionally unstable. This is because emotional maturity supports traits like perseverance, self-discipline, and motivation, which are essential for effective learning.

Emotional maturity influences a student's response to academic challenges such as poor grades, pressure from parents and teachers, or competition among peers. A student who is emotionally stable is more likely to respond positively to setbacks, seek help when needed, and bounce back after failure; behaviors associated with higher academic achievement. The relationship between emotional maturity and academic achievement is grounded in emotional

intelligence theory (Goleman, 1995) and self-regulation theory.

Influence of Cognitive Maturity on Academic Achievement

Cognitive maturity, rooted in the ability to think abstractly and logically, is essential for subjects like mathematics and sciences. Cognitive maturity refers to the development of intellectual abilities such as reasoning, critical thinking, problem-solving, and decision-making, which enable individuals to engage meaningfully with academic content. It is a critical factor in determining how well students understand abstract concepts, apply knowledge to new situations, and engage in independent learning.

According to Ogunyemi (2018), cognitive maturity affects how students process information, retain knowledge, and connect ideas across subjects. A student with a more advanced cognitive capacity can approach learning with deeper understanding, organize study materials better, and adapt to complex instructions, contributing positively to academic achievement.

Influence of Social Maturity on Academic Achievement

Socially mature students can collaborate, follow rules, and communicate effectively which are factors that enhance classroom participation and reduce disciplinary issues (Olumide, 2016). Social maturity refers to an individual's ability to interact appropriately and responsibly within social settings. It encompasses behaviors such as cooperation, communication, empathy, respect for others, conflict resolution, and the ability to function effectively in group situations. In the context of secondary school students, social maturity plays a crucial role in their academic success and classroom engagement.

Methodology

Research Design

The descriptive survey research design was used in this study. The ability to gather information from a representative sample and to analyse the relationships between variables without manipulating them is a characteristic of this design, which makes it suitable for evaluating the impact of maturity (emotional, cognitive, and social) on the academic success of students in

secondary school. Because it includes describing, documenting, analysing, and interpreting situations that exist, the descriptive survey was determined to be the most suitable design for performing this study.

Population of the Study

Every student attending a public secondary school in the Ethiopia East Local Government Area of Delta State and enrolled in senior secondary school (SS1 to SS3) was included in the study's population. Based on records from the Local Government Education Authority, the total population of students across the selected schools is approximately 5,200 students.

Sample Size and Sampling Technique (PERCENTAGE)

Using Taro Yamane's formula (1967) for determining sample size from a finite population:

$$N = \frac{N}{1 + N(e)^2}$$

Where:

- n = sample size
- N = population size = 5,200
- e = level of significance = 0.05

$$n = \frac{5200}{1 + 5200(0.05)^2} = \frac{5200}{1 + 5200(0.0025)} = \frac{5200}{1 + 13} = \frac{5200}{14} \approx 371$$

Thus, the sample size for this study is 371 students.

A stratified random sampling technique was used to select the respondents. The stratification was based on class levels (SS1, SS2, SS3), and gender was also considered to ensure balanced representation. SS1 males = 53; SS2 males = 59; SS3 males = 59. While SS1 females = 73; SS2 females = 60; SS3 females = 67.

Instrument for Data Collection

The structured questionnaire that was used for the purpose of gathering data was called the Maturity and Academic Achievement Questionnaire (MAAQ). The instrument was split up into two distinct pieces:

Section A: Demographic data of respondents (age, gender, class level).

Section B: Statements measuring emotional maturity, cognitive maturity, and social maturity using a 4-point Likert scale (Strongly Agree to Strongly Disagree).

Validation of Instrument

The tool was submitted to both content and face validity testing. The questions in the questionnaire were examined by experts in the fields of guidance and counselling, as well as measurement and evaluation, from Ignatius Ajuru University of Education. The goal was to ensure that the questions were pertinent, straightforward, and indicative of the constructs that were being assessed. Their comments were taken into consideration, and the necessary repairs and adjustments were made.

Reliability of the Instrument

In order to test how reliable the questionnaire was, a pilot research was carried out employing thirty students from a neighbouring secondary school in the Ukwuani Local Government Area. These students were not part of the main study. The replies were examined using Cronbach's Alpha, which resulted in a reliability value of 0.82, which demonstrates that the instrument had a high degree of internal consistency and reliability. The coefficient value determined was at 0.79 coefficient.

Method of Data Collection

With the assistance of research assistants and school officials, the researcher physically

distributed the questionnaires to the participants. Students were informed of the objective of the research project prior to the administration of the instruments, and they were given assurances of the confidentiality of their replies. The researcher also received permission from the school administrators to conduct the study. In order to guarantee a high rate of return and to assure the accuracy of the information, completed questionnaires were collected immediately.

Method of Data Analysis

Descriptive and inferential statistical approaches were used to analyse the data that had been gathered. The demographic data and replies to the study questions were analysed with the use of descriptive statistics such as frequency counts, percentages, mean, and standard deviation. When it came to analysing the findings presented in tabular form and arriving at the mean criteria, the mean criterion was utilised, and the answer alternatives were weighted in accordance with the following method: SA: 4 points, A: 3 points, D: 2 points, and SD: 1 point are the point values assigned to each of the four letter grades. Following an explanation of each of the tables that was provided for the sake of clarity, any mean that fell below the average mean of 2.5 was disagree, while any mean that above 2.5 was agree.

Data presentation and Analysis

TABLE 1: Distribution of Respondents by Sex

VARIABLES	FREQUENCY	PERCENTAGE
Male	171	46%
Female	200	54%
TOTAL	371	100%

ANALYSIS: According to the data shown above, 46 percent of the 371 respondents were male, which accounts for 171 individuals, while 54 percent of the 371 respondents were female,

which accounts for 200 individuals. As a result, the distribution of respondents by sex column is dominated by female respondents

TABLE 2: Distribution of Respondents by Age

VARIABLES	FREQUENCY	PERCENTAGE
12-14	200	54%
15-17	95	26%
18 and above	76	20%
TOTAL	371	100%

ANALYSIS: Two hundred respondents, which accounts for 54 percent of the total, were between 12 and 14 years of age, based on the age distribution shown above. Ninety-five respondents, which represents 26 percent of the total, were between 15 and 17 years of age, while

only 76 respondents, which represents 20 percent of the total, were 18 years of age or older. As a result, the majority of the responses were between the ages of 12 and 14, which indicates that the average age was within that range

TABLE 3: Distribution of Respondents by Class

VARIABLES	FREQUENCY	PERCENTAGE
SS1	135	36%
SS2	119	32%
SS3	117	32%
TOTAL	371	100%

ANALYSIS: According to the table above, there were 135 respondents in SS1, which accounts for 36% of the respondents, 119 respondents in SS2, which accounts for 32% of the respondents, and 117 respondents in SS3, which accounts for 32%

of the respondents. In this case, students in the first year of senior secondary school (SS1) comprise the majority of those who answered the questionnaire, when the distribution of respondents is broken down by class.

TABLE 4: The impact of chronological age and academic performance among secondary school students

Items	N	SA	A	D	SD	M	Decision
	371	(4)	(3)	(2)	(1)		
1.Age plays a significant role in the academic achievement of secondary school students	371	181 (724)	172 (516)	11 (22)	7 (7)	3.4	Agree
2.There is no link between age and academic achievement of secondary school students	371	20 (80)	20 (60)	151 (302)	180 (180)	1.7	Disagree

3.Younger students within a grade level generally demonstrate better adaptability	371	170 (680)	162 (486)	21 (42)	18 (18)	3.3	Agree
4.Younger students within a grade level generally demonstrate better motivation than their older counterparts	371	179 (716)	161 (483)	21 (42)	10 (10)	3.4	Agree
5.Older students often face issue as peer comparison than their younger counterparts	371	165 (660)	167 (501)	23 (46)	16 (16)	3.3	Agree
Older students often face issue as diminished confidence than their younger counterparts	371	180 (720)	159 (477)	17 (34)	15 (15)	3.4	Agree

TABLE 5: Effect of emotional and cognitive maturity on students ' academic performance

Items	N	SA	A	D	SD	M	Decision
	371	(4)	(3)	(2)	(1)		

Discussion of Findings

The purpose of this part is to provide an interpretation and comparison of the findings that were gathered from the analysis of the data with the body of literature that already exists as well as the theoretical framework that guided the research.

Research Question one: What is the impact of chronological age and academic performance among secondary school students?

The findings showed a statistically significant relationship between students' chronological age and their academic performance. Younger students within a grade level generally demonstrated better adaptability and motivation than their older counterparts, who often faced issues such as peer comparison and diminished confidence. This aligns with the assertion of McClelland (2015), who noted that age-related developmental stages influence academic motivation and engagement.

Chronological age alone does not fully determine academic success; rather, it is the level of emotional intelligence, cognitive reasoning ability, and social competence that influences how students interact with their environment, handle academic stress, and respond to learning. Students with higher levels of maturity tend to be more disciplined, responsible, focused, and academically competent. Emotional maturity was found to significantly impact academic achievement. Students who showed emotional control, resilience, and adaptability in handling school-related pressures performed better than those who struggled emotionally. A strong link was observed between cognitive maturity and academic achievement. Students with advanced reasoning ability, decision-making capacity, and abstract thinking tended to score higher in academic tasks and assessments.

Research Question Two: How does emotional and cognitive maturity impact students' academic performance?

According to the findings of the research, emotional maturity is a significant factor in determining the academic achievement of kids. Students who were able to manage their emotions, deal with the stress of schoolwork, and retain their attention while taking exams were more likely to get better academic results. The conclusions that Adeyemo (2017) reached, which highlighted the significance of emotional intelligence in academic environments, are in agreement with this discovery. Students who have reached a higher level of emotional maturity are more likely to respond positively to feedback and challenges in school situations. The results also revealed a strong influence of cognitive maturity on academic achievement. Students who demonstrated higher cognitive skills such as logical reasoning, critical thinking, and attention to detail performed better academically. This supports Piaget's Cognitive Development Theory (1972), which posits that students at the formal operational stage (typically adolescents) are capable of abstract reasoning and problem-solving skills essential for academic success.

Collectively, the findings indicate that maturity in all its forms chronological, emotional, cognitive, and social has a significant impact on students' academic performance. This confirms earlier work by Kolo & Gambo (2016) who asserted that developmental readiness significantly affects how adolescents perform in structured academic settings.

Conclusion

The effects of maturity on the academic performance of secondary school students in the Ethiope East Local Government Area of Delta State were the focus of an investigation conducted as part of the study. Given the findings, it is possible to draw the conclusion that maturity, which takes on a number of different forms, including emotional, cognitive, and social, has a significant impact on the academic performance of students. There is a strong connection between the chronological age of students and their performance in school. Younger students within a class cohort generally perform better academically than their older peers. This suggests

that age appropriateness may influence mental agility, adaptability, and motivation in schoolwork.

The study found that the combination of emotional, cognitive, and social maturity significantly predicts the level of academic success in students. A deficiency in any of the maturity components could lead to lower academic achievement. These findings highlight the importance of understanding adolescent development in educational settings and call for collaborative efforts by teachers, school counselors, parents, and policymakers in nurturing maturity as a foundation for academic excellence.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. **Incorporate Emotional Intelligence Programs**
Schools should integrate emotional intelligence and maturity programs into the curriculum to help students build self-awareness, empathy, and stress management skills.
2. **Guidance and Counseling Services**
Guidance counselors should work closely with students to address issues related to emotional imbalance, social challenges, and cognitive difficulties that may affect learning.

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