

**Influence of Non-Cognitive Psychological Variables on Creative Potentials Among Students in Katsina Zonal Education Quality Assurance, Katsina State, Nigeria**Maryam Mannir Sani¹ and Mansur Haruna¹¹Department of Educational Psychology and Counselling, Umaru Musa Yar'adua University, Katsina, NigeriaCorresponding Author: mansurharuna@umyu.edu.ng**Abstract**

This study explored how non-cognitive psychological factors affect students' creative potentials in Katsina State Zonal Education Quality Assurance area. Guided by two objectives and hypotheses, a descriptive survey design was used involving 370 Senior Secondary II students sampled from 12,067 across 25 public schools. Data were gathered using validated and reliable motivation and self-concept questionnaires, then analyzed with Pearson moment correlation and t-tests. The study found that motivation ($p = 0.018$) resulting in hypothesis rejection and self-concept ($p = 0.308$) resulting in hypothesis retention. Findings from the study recommends that educational psychologist, teachers, and school administrators provide students with targeted support, including counseling, motivation enhancement and professional development initiatives such as seminars and work shops. The study concluded targeted psychological support, intrinsic and extrinsic motivation strategies, professional development for teachers, and organized seminars to enhance students' creative potential and academic performance.

Keywords: Non-Cognitive Psychological variables, Creative Potentialities, Motivation, Self- Concept

Introduction

Despite adequate curricular exposure, declining levels of creativity among secondary school students in Katsina Zonal Education Quality Assurance Area have raised critical concerns about the psychological dimensions of learning. Empirical evidence suggests that non-cognitive factors such as low self-esteem, poor motivation, anxiety, weak self-concept, emotional dysregulation, and lack of resilience subtly yet significantly hinder students' capacity for innovative thinking and problem-solving (British Council, 2023; UNICEF, 2023). The persistent neglect of these psychological constructs in educational planning has contributed to a learning environment that suppresses creative potential. As creativity becomes increasingly vital for academic success and national development, there is an urgent need for empirical inquiry to guide policy reforms and pedagogical strategies that promote holistic student development (PISA, 2022; Runco & Sakamoto, 1999).

In contemporary educational discourse, non-cognitive psychological variables are gaining recognition for their role in shaping students' creative potential. While traditional systems have emphasized cognitive faculties such as intelligence and memory, recent scholarship highlights the importance of motivation, emotional regulation, and self-concept in achieving comprehensive educational outcomes (Al-Ababneh, 2020; Cook, 1998). This is particularly relevant in developing contexts like Nigeria, where socio-economic disparities and

infrastructural limitations exacerbate systemic challenges. Motivation, self-concept, and emotional regulation are pivotal drivers of student engagement, problem-solving, and creative expression. Creativity defined as the ability to generate novel and useful ideas is now understood as a multidimensional construct influenced by emotional states, motivational intensity, and self-perception (UNESCO, 2023; British Council, 2023).

In Nigeria, the educational system's emphasis on cognitive metrics such as standardized testing has inadvertently marginalized creativity in formal assessments. This narrow focus has created a disconnect between academic achievement and real-world problem-solving, particularly in regions like Katsina State, where youth unemployment and underemployment persist (National Bureau of Statistics, 2024). Self-concept, a foundational psychological construct, significantly influences academic outcomes by shaping students' perceptions of their abilities and potential. A culturally supportive environment that nurtures self-belief can enhance both motivation and creativity. Similarly, intrinsic motivation driven by curiosity and personal satisfaction has been linked to deeper engagement and creative exploration, while emotional regulation enables students to manage stress and persist through complex tasks (UNESCO, 2023; Al-Ababneh, 2020).

Against this background, the present study investigates the influence of non-cognitive psychological variables specifically motivation, self-concept, and emotional regulation on students' creative potential within Katsina State's educational system.

Statement of the Problem

In the evolving landscape of global education, creativity has emerged as a vital competency for navigating the demands of the 21st-century knowledge economy. Creativity defined as the ability to generate original and valuable ideas, creativity is increasingly recognized not merely as a cognitive skill but as a multidimensional construct shaped by emotional regulation, intrinsic motivation, self-concept, self-efficacy, and resilience. These non-cognitive psychological variables may significantly influence students' capacity for innovative thinking, problem-solving, and adaptive learning. However, in Katsina State, educational practices continue to prioritize cognitive metrics such as standardized test scores and academic grades, often neglecting the emotional and motivational dimensions essential to holistic development.

Despite the establishment of the Katsina Zonal Education Quality Assurance framework to enhance educational outcomes, it was observed by the researchers that its implementation remains largely focused on cognitive performance. This narrow evaluative lens fails to account for the psychological factors that underpin creativity, resulting in limited integration of non-cognitive skill development into curriculum design and pedagogical strategies. The emotional climate of classrooms shaped by teacher-student relationships, peer interactions, and institutional culture plays a critical role in fostering or inhibiting creative expression. Yet, these dynamics are frequently overlooked, and gender-specific differences in emotional engagement and motivation remain underexplored, despite their potential impact on students' creative involvement.

Global models such as the OECD's Survey on Social and Emotional Skills (SES) offer comprehensive frameworks for assessing traits closely linked to creativity, including emotional regulation, open-mindedness, and collaboration. However, these frameworks have yet to be meaningfully contextualized within Nigerian educational systems, leaving a significant gap in empirical data and policy direction. Without such integration, educators and policymakers lack the tools to cultivate emotionally supportive learning environments that nurture creativity and resilience across diverse student populations. This disconnect between global best practices

and local implementation underscores the need for targeted research within the Katsina educational context.

Therefore, the abstract nature of these construct often leads to their underappreciation in educational planning, despite their critical role in shaping students outcomes. In Katsina zonal Education Quality Assurance area, fragmented efforts to embed creativity in science and technical education, coupled with rigid curricular and teacher- centered pedagogy have limited students' exposure to creative learning

Objectives of the Study:

The objectives of this study are as follows:

1. To determine the relationship between motivation and creative potentials among students in Katsina Zonal Education Quality Assurance, Katsina State, Nigeria.
2. To determine the difference in the influence of self-concept between male and female students in Katsina Zonal Education Quality Assurance, Katsina State, Nigeria.

Research Hypotheses

The following research hypotheses were tested in this study:

H₀₁: There is no significant relationship between motivation and creative potentials among students in Katsina Zonal Education Quality Assurance, Katsina State, Nigeria.

H₀₂: There is no significant difference in the influence of self-concept between male and female students in Katsina Zonal Education Quality Assurance, Katsina State, Nigeria.

Literature Review

Motivation serves as the psychological engine that propels learning behaviors, influencing the intensity, direction, and persistence of effort among students (Deci & Ryan, 2000). Intrinsic motivation rooted in curiosity, autonomy, and personal satisfaction has been consistently linked to deeper cognitive engagement, creative exploration, and academic resilience (UNESCO, 2023; Oladiji, 2023). Conversely, excessive reliance on extrinsic motivators such as grades or rewards may inhibit divergent thinking and reduce students' willingness to take intellectual risks (Ryan & Deci, 2020). In the Nigerian context, particularly in Katsina State, low levels of intrinsic motivation among secondary school students have been associated with declining academic performance and diminished creative output (British Council, 2023; Ankeli, 2023).

Motivational deficit is often compounded by rigid curricula, teacher-centered instructional models, and limited opportunities for self-expression and collaborative learning. Studies show that environments lacking emotional support and autonomy suppress students' creative potential and reduce their engagement with complex problem-solving tasks (Agbo, 2025; OECD, 2022). In Katsina State, the absence of motivationally responsive pedagogies and the underutilization of student-centered approaches have created a gap between educational delivery and the development of critical 21st-century skills. For future research, scholars are encouraged to explore the integration of motivation-enhancing strategies such as project-based learning, emotional scaffolding, and culturally relevant teaching into curriculum design to foster creativity and improve student outcomes across diverse learning contexts.

Self-concept, a foundational construct in educational psychology, plays a pivotal role in shaping students' academic performance, motivation, and creative engagement. It refers to

individuals' perceptions of their own abilities, competencies, and worth, which directly influence how they approach learning tasks and respond to academic challenges ([Marsh & Martin, 2011](#)). The multidimensional and hierarchical model of self-concept emphasizes that academic self-concept is a distinct yet interconnected domain within general self-perception, affecting students' confidence, persistence, and willingness to engage in creative problem-solving ([Shavelson et al., 1976](#)). When students perceive themselves as capable and valued, they are more likely to demonstrate higher levels of motivation and originality in their academic pursuits.

In culturally diverse contexts like Katsina State, fostering a supportive educational environment that nurtures positive self-concept is essential for enhancing both academic and creative outcomes. Research indicates that students who experience affirmation, encouragement, and inclusive classroom practices tend to develop stronger self-belief, which in turn fuels intrinsic motivation and creative expression ([Oladipo & Balogun, 2023](#)). Conversely, environments marked by negative reinforcement, rigid expectations, or neglect of emotional needs can undermine self-concept and suppress innovation. For future studies, scholars are encouraged to explore the impact of culturally responsive teaching, peer support systems, and identity-affirming curricula on the development of self-concept and creativity among Nigerian secondary school students.

Creative potential among senior secondary school students encompasses the latent capacity to generate original ideas, approach problems with innovation, and express themselves in novel and meaningful ways. In the context of secondary education particularly within Katsina State fostering this potential is critical for equipping students with the adaptive skills necessary to navigate an increasingly complex and innovation-driven global economy. While traditional educational systems have long prioritized cognitive competencies such as intelligence and academic performance, emerging research highlights the indispensable role of non-cognitive psychological variables such as self-concept, intrinsic motivation, emotional intelligence, and resilience in cultivating creativity and adaptive learning behaviors ([Whitehorn et al., 2025](#); [UNESCO, 2023](#)).

These non-cognitive factors serve as foundational enablers of creative expression by influencing how students perceive themselves, regulate emotions, and engage with learning tasks. For instance, students with a strong academic self-concept and high emotional intelligence are more likely to take intellectual risks and persist through challenges, both of which are essential for creative problem-solving ([Oladipo & Balogun, 2023](#)). In Katsina State, where educational challenges are compounded by socio-economic disparities and rigid pedagogical structures, integrating these psychological constructs into curriculum design and instructional practices is vital. Future research should explore context-specific interventions such as creativity-focused safe-space programs, emotional literacy training, and motivation-enhancing pedagogies that can unlock students' creative potential and align educational outcomes with national development goals ([British Council, 2023](#)).

Research Methodology

The methodology employed in this study was designed to assess the Influence of Non-Cognitive Psychological Variables on Creative Potentials Among Students in Katsina Zonal Education Quality Assurance, Katsina State, Nigeria.

Research Design

This study utilized a descriptive survey design. The survey method is appropriate for collecting a large amount of data from a sizeable population in a relatively short period. This design is

particularly suitable for studies aimed at understanding the influence of non cognitive psychological variables on creative potentials among students in Katsina Zonal Education Quality Assurance Katsina state, Nigeria.

The population for this study is twelve thousand and sixty seven (12,067) SS II students, both males and females, spread across the 3 Local Government Areas (LGAs) namely: Katsina, Kaita and Jibia LGAs respectively with a Sample of 370 students in the 25 public secondary schools in the zone.

Data was collected using a structured questionnaire titled “Intrinsic and Extrinsic Motivation of Students (IMEMQ) Adapted from [Bracken \(1992\)](#), Self-Concept Descriptive Questionnaires (SDQ) and was modified by the researchers.

The collected data was analyzed using both descriptive and inferential statistics: Pearson product moment correlation and t-test were used to test the hypotheses with the use of Statistical Package for Social Sciences (SPSS version 23) at 0.05 level of significance.

Results

Descriptive statistics of frequencies, percentages and standard deviation for the various components of the instrument were used to summarize the data. Altogether, the instrument was administered to 381 respondents and 370 were successfully retrieved. The summary was presented in [Table 1](#) below.

Table 1: Distribution of Number of Questionnaire Dispatched and Retrieved

No. of Questionnaire Dispatched	No. of Questionnaire Retrieved
381 (100%)	370 (96%)

[Table 1](#) above highlighted that a total of 381 copies of questionnaire distributed to the respondent in the study area, out of the 381 total copies of questionnaire distributed 370 were duly completed and returned while the remaining 11 copies of questionnaire were not retrieved. The high response rate was achieved as a result of subsequent follow-ups by the researcher, along side the research assistants were employed for the study.

Hypotheses Testing

Ho1: There is no significant relationship between motivation and creative potentials among students in Katsina Zonal Education Quality Assurance, Katsina State.

Table 2: Pearson Product Moment Correlation Analysis of Motivation and Creative Potentials Among Students

	N	Mean	Std. Deviation	r	p-value	Decision
Motivation	370	35.82	5.196	0.411	0.018	Significance
Creative potentials	370	30.36	5.140			

The result in [Table 2](#) shows that the correlation coefficient obtained was 0.441. This means that, there exist a moderate positive relationship of students' scores on motivation and creative potentials scores. The result shows that, probability value of 0.018 was compared with significance level of 0.05 and it was found to be significant. The null hypothesis which stated that there is no significant relationship between motivation and creative potentials among students was therefore rejected and inference drawn was that, there is significant relationship between motivation and creative potentials among students.

Ho2: There is no significant difference in self-concept between male and female students in Katsina Zonal Education Quality Assurance, Katsina State.

Table 3: T-test Analysis of Difference in Self-Concept Between Male and Female Students

Variables	N	Mean	Std. Deviation	t-value	p-value	Decision
Male	220	41.77	8.455	8.177	0.308	Not Significance
Female	150	34.45	7.509			

Table 3 shows that male students (N = 220) have a higher mean score (41.77, SD = 8.455) compared to female students (N = 150) with a mean score of 34.45 (SD = 7.509). The t-value is 8.177, and the p-value is 0.308, which is greater than the significance level of 0.05. Since the p-value is statistically significant, the null hypothesis stating that there is no significant difference in self-concept between male and female students is retained. This indicates that there were self-concept differently for male and female students in Katsina Zonal Education Quality Assurance.

Discussion of Findings

In line with research hypothesis one, the study reveals a divergence in perceptions among respondents regarding the role of motivation in enhancing students' creative potentials within the Katsina Zonal Education Quality Assurance framework. Although motivation is conventionally regarded as a catalyst for creativity, the absence of consensus among stakeholders suggests that its impact may be more nuanced and context-dependent than traditionally assumed. Framed within the broader discipline of educational psychology, the findings highlight the multifaceted nature of creativity as both an academic and developmental construct. The study aligns with and extends the work of Ernest (2024), who explored the influence of psychological constructs such as motivation, attribution, self-concept, and interest on academic motivation among secondary school students. Ernest's emphasis on the role of internal and external attribution styles, and the significance of self-concept in shaping academic engagement, reinforces the present study's focus on psychological empowerment. His recommendation to foster positive self-perception and stimulate interest through teacher reinforcement resonates with this study's assertion that nurturing creative expression requires a deliberate emphasis on non-cognitive psychological variables.

In line to research hypothesis two, the study found unanimous agreement among respondents that self-concept influences creative potential between male and female students in Katsina, suggesting that students' views of their abilities and self-worth significantly shape creativity across genders. Ekechukwu's (2017) study on the relationship between psychological variables and scholarly attributes among senior secondary school students in Rivers State further complements the present research. His findings revealed that self-concept, self-efficacy, and emotional intelligence have a strong positive relationship with students' scholarly attributes, while self-esteem showed a weaker correlation. These results underscore the importance of psychological traits in shaping students' academic identity and intellectual engagement. Ekechukwu's recommendation for school counselors to help students develop a strong sense of self-belief aligns with the current study's emphasis on psychological empowerment as a driver of creative potential. Although the instruments and population differ, both studies converge on the notion that psychological variables are critical human characteristics that influence educational outcomes. The present study, by focusing on creative potential, extends Ekechukwu's findings into the domain of innovation and originality, suggesting that self-concept and emotional intelligence are not only predictors of scholarly attributes but also facilitators of creative expression. The comparative insights from Ernest and Ekechukwu

suggest that creativity is not merely put in place, but emerges through a complex interaction of psychological, pedagogical, and contextual influences.

Conclusion

The study on senior secondary school students in Katsina State revealed that while motivation and self-concept alone did not significantly impact creative potential across the general student population, their influence became more pronounced when analyzed by gender. Male and female students responded differently to these psychological factors, highlighting the critical role of gender in shaping how motivation and self-concept foster creativity. This insight emphasizes the need for gender-sensitive approaches in nurturing students' creative development.

Recommendations

Based on the findings of the study, the researcher therefore makes the following useful recommendations:

1. Also, students should be motivated extrinsically by teachers and school administrators so as to have a clear correlation on improving students' academic performance.
2. Seminars and workshops can be organized by the government in order to find ways of improving creative potentiality, motivates and enhance students' academic performance.

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