

# ZAJESE

## ZARIA JOURNAL OF EMPIRICAL STUDIES IN EDUCATION EFFECT OF EMOTIONAL INTELLIGENCE SKILLS TRAINING ON ACADEMIC SELF-EFFICACY AMONG SCIENCE SENIOR SECONDARY SCHOOL STUDENTS IN KEBBI STATE, NIGERIA

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### ABSTRACT

This study investigated the effect of emotional intelligence skills training on academic self-efficacy among senior secondary school students in Kebbi State, Nigeria. The study utilized a quasi-experimental, non-equivalent control group, pre-test – post-test design. Intact classes of 60 students was drawn from a population of 53,651 senior secondary school students. Data was collected using the Academic Self-Efficacy Scales (ASES) and analyzed using t-test. Findings indicated that emotional intelligence skills training positively impacted academic self-efficacy in the experimental group ( $t=14.319$ ,  $P=.000$ ). The training was effective in improving academic self-efficacy, as evidenced by the difference between pre-test and post-test scores ( $t=17.906$ ,  $P=.000$ ), favoring the post-test results. No significant gender difference was found in the effect of the training, meaning it had a similar impact on both male and female students ( $t=1.114$ ,  $P=.270$ ). It was recommended that school principals, counselors, psychologists, and subject teachers receive exposure to emotional intelligence skills (self-awareness, self-management, social-awareness, and relationship management) to address students' academic problems.

**Keywords:** Emotional Intelligence, Skills Training, Academic Self-Efficacy, and Students

### INTRODUCTION

Education is a paramount development priority globally, with its core purpose being human development. An educated individual is considered a valuable asset to society, explaining the continuous research into improving human knowledge. Debates on education and human development are dynamic due to socio-political, economic, and technological advancements, leading to innovations and reforms (Aldwin, 2017). These factors can influence learning and achievement in schools. Academic achievement is the outcome of instruction and the end product of a learning experience, desired by parents, guardians, and teachers (Crozier, 2015).

Schools and teachers are often qualitatively graded based on student performance. In Nigeria, education is crucial for change and national development (Marzo, 2017). However, a persistent problem is the poor academic performance of secondary school students in external examinations like WAEC and NECO, leading to frustration, high dropout rates, and difficulty gaining tertiary institution admission. Despite numerous efforts, improving academic performance remains a challenge, and emotional intelligence training may help students excel (Shaffer, 2023).

Literature suggests that emotional intelligence plays a key role in life and academic success. Ladan (2018) argues that emotional

intelligence, social intelligence, and luck contribute significantly to success. While IQ may help in hiring, EQ (emotional intelligence) is linked to promotion. Research indicates that successful individuals often possess higher EQ rather than just IQ, demonstrating skills like handling frustration, controlling emotions, and getting along with others (Bremmer, 2024). Excessive attention to moods without understanding their causes or ability to repair them can lead to negative emotional spirals, generating rumination and self-focused processes, potentially resulting in low academic self-efficacy and academic difficulties (Festus, 2021). According to Lightsey (2019) Self-efficacy is vital for students' cognitive functioning, especially in an information-rich world requiring lifelong learning. Research, including meta-analyses, supports the primacy of self-efficacy. A 2021 meta-analysis of 39 studies found that higher self-efficacy is linked to higher academic performance and persistence (Adeoye & Emeka, 2021).

Emotional intelligence skills training equips students with tools to recognize, understand, and manage their emotions effectively, while also fostering empathy and relationship-building abilities (Hamzat, 2023). These competencies are crucial in the school environment, where peer pressure, academic demands, and social challenges often generate emotional strain. According to Strumfer, (2023) students with high emotional intelligence tend to exhibit better classroom behavior, show increased motivation to learn, and develop resilience in the face of setbacks. By learning to regulate emotions, set achievable goals, and respond constructively to failure, students build greater confidence in their academic capabilities an essential element of academic self-efficacy.

In the context of senior secondary education in Kebbi State, the integration of emotional intelligence training could provide a sustainable solution to the persistent issue of underachievement. Smith and Segel (2022) observed that many students face both academic and non-academic pressures, including socio-economic constraints, family

instability, and limited access to learning resources. Emotional intelligence training, therefore, becomes not just a psychological intervention but a practical tool for enhancing students' belief in their academic abilities (Redke, 2023). By fostering greater self-awareness, self-regulation, and interpersonal effectiveness, such training can empower students to take ownership of their learning, thereby improving academic outcomes and increasing their chances of success in both school and life. This study therefore intends to determine the effect of emotional intelligence skills training on academic self-efficacy among science senior secondary school students at Kebbi State, Nigeria

### **Statement of the Problem**

In today's globalized world, adolescents face dilemmas due to urbanization, liberalization, and rapid changes in family life, peer pressure, societal expectations, and academic challenges. These factors contribute to increased competition, stress, and anxiety among secondary school students, who often struggle to cope with humiliation and negative emotions in their academic lives. Emotions profoundly influence behavior. Engaging secondary school students emotionally is crucial for strengthening critical thinking, which fosters a rational emotional life and is essential for academic achievement. Extensive research has established the connection between self-efficacy and academic achievement, consistently demonstrating that academic self-efficacy enhances performance and success. Psychological and affective states can lead to disappointment, frustration, and self-worthlessness, reinforcing emotional problems that provoke low academic self-efficacy, academic difficulty, and failure. Emotional intelligence skills training might minimize these negative feelings and boost academic self-efficacy, leading to academic success. Therefore, this research aimed to investigate the effect of emotional intelligence skills training on academic self-efficacy among secondary school students in Kebbi State, Nigeria.

### **Objectives of the Study**

The study aimed at:

1. determining the differences in academic self-efficacy between students exposed to emotional intelligence skills training and those not.
2. determining the differences between pre and post academic self-efficacy of students exposed to emotional intelligence skills training only.
3. ascertaining the differences in academic self-efficacy of students exposed to emotional intelligence skills training based on gender.

### Research Questions

The following research questions were raised:

1. What is the difference in post-test academic self-efficacy scores between secondary school students exposed to emotional intelligence skills training and those in the control group?
2. What is the difference between the pre-test and post-test academic self-efficacy scores of students exposed to emotional intelligence skills training?
3. Is there any difference in academic self-efficacy scores between male and female students exposed to emotional intelligence skills training?

### Null Hypotheses

The study was guided by the following null hypotheses:

1. HO<sub>1</sub>: There is no significant difference in the post-test scores on Academic Self-Efficacy of secondary school students exposed to Emotional Intelligence skills training and those in a control group.
2. HO<sub>2</sub>: There is no significant difference between pre-test and post-test scores on Academic Self-Efficacy of secondary school students exposed to Emotional Intelligence skills training.
3. HO<sub>3</sub>: There is no significant difference in Academic Self-Efficacy scores of male and female students exposed to treatment.

## METHODOLOGY

### Research Design

The study employed a quasi-experimental design with a pre-test-post-test control group. This design involves manipulating independent variables without random assignment of

subjects to conditions. The study included both a treatment group and a control group, with the experimental group receiving Emotional Intelligence skills training and the control group participating in normal conventional classes.

### Population of the study

The study's population consisted of 53,651 students from 323 public senior secondary schools across the six educational zones in Kebbi State. Senior secondary school students were chosen based on their attainment of adolescence and the formal operational stage of cognitive development, enabling them to be taught abstract, formal, and logical thinking.

### Sample and Sampling Technique

The sample comprised 115 science senior secondary school (SSS2) students (Experimental-60 & Control-55). These students were taken from 2 intact classes in Vocational training center, Bunza within the Bunza educational zone of Kebbi State, after administering the Academic Self-Efficacy Scale to establish a baseline for selection.

### Instrumentation

The Academic Self-Efficacy Scale (ASES), an eighteen-item instrument developed specifically for senior secondary school students, was used to assess academic self-efficacy. The items were developed based on "Guide for constructing self-efficacy scale" (Bandura, 2006) and "Academic Self Efficacy Scale" (Gore, 2016). All ASES items were measured on a 5-point Likert scale (Strongly Agreed, Agreed, Not Sure, Disagreed, Strongly Disagreed). Responses were scored from 5 (Strongly Agreed) to 1 (Strongly Disagreed), with total scores ranging from 18-90. A mean score below 45 indicated low academic self-efficacy, above 67 indicated high academic self-efficacy, and scores between 45-67 indicated moderate academic self-efficacy.

### Validity and Reliability of the Instrument

The face and content validity of the ASES was established by experts in Educational psychology, measurement and evaluation who deemed it suitable for measuring academic self-efficacy. The reliability of the instrument

was determined by using Cronbach's alpha on pilot test data, yielding a reliability coefficient of 0.73 using SPSS v20.

### Procedure for Data Collection

The research was conducted in three phases: pre-treatment, treatment, and post-treatment. After receiving approval, the researcher and research assistants (school counsellors) established rapport with the selected students to familiarize themselves with the participants and understand the academic challenges they faced. This step helped the researcher determine the best ways to motivate the students to engage in Emotional Intelligence Skills Training. Once the students were assigned to either the treatment or control group, pre-tests were administered. To avoid disrupting the school's regular schedule, the Emotional Intelligence Skills Training was conducted during students' free periods. The Academic Self-Efficacy Scale (ASES) was administered, and participants were given 30 minutes to complete the inventory, which was collected on the same day.

The Emotional Intelligence Skills Training was based on the four components of Goleman's performance model of Emotional Intelligence. Both the treatment and control groups continued with their regular classroom lessons using conventional teaching methods. However, the experimental group also received additional instruction focused on Emotional Intelligence Skills Training. This training emphasized self-awareness, self-motivation, self-regulation, empathy, and relationship management. The control group did not receive this additional training and only participated in conventional classroom teaching. The intervention lasted for six weeks, with sessions held twice a week. Each session lasted 30 minutes and was conducted during normal school hours.

The final phase is for data collection which involved administering the post-test. After the completion of the six-week training, the Academic Self-Efficacy Scale (ASES) was again distributed and collected from both the experimental and control groups, with the assistance of research assistants. This was done

to measure the effects of the treatment. The researcher expressed gratitude to the school authorities and students for their cooperation and support throughout the program and informed them that this marked the official conclusion of the study.

### Procedure for Data Analysis

The collected data were organized and analyzed using the Statistical Package for Social Sciences (SPSS version 20). Inferential statistics, specifically independent and paired t-tests, were used to test the null hypotheses at a 0.05 level of significance.

## RESULTS

**Table 1: t-test analysis of differences in post-test scores of Academic Self Efficacy in the treatment and control Group as measured by ASES**

Groups	N	Mean	SD	df	t-cal	t-crit	P (sig)
Experimental Group	60	47.81	2.83	58	14.31	9	1.96 .000
Control Group	55	26.93	3.45				

*Significant at P<0.05*

Table 1 showed a significant difference in the mean scores of academic self-efficacy between the experimental and control groups ( $t=14.319$ ,  $P=.000$ ,  $df=58$ ). The null hypothesis was rejected, indicating a significant difference in post-test academic self-efficacy scores favoring the experimental group.

**Table 2: paired t-test analysis of difference between pre-test and post-test scores of Academic Self Efficacy of students exposed to Treatment**

Variables	N	Mean	SD	df	t-cal	t-crit	P (sig)
Pre-test	60	24.87	1.76	29	17.906	1.96	.000
Post-test	60	47.72	3.83				

*Significant at P<0.05*

Table 2 revealed a significant difference ( $t=17.906$ ,  $P=.000$ ). Students who received emotional intelligence skills training showed greater improvement in academic self-efficacy compared to when they did not receive treatment. Therefore, the null hypothesis was rejected, indicating that the emotional

intelligence skills training was effective and favored the treatment group.

**Table 3: T-test analysis between male and female respondents in the Experimental group**

Gender	N	Mean	SD	df	t-cal	t-crit	P (sig)
Male	41	38.47	2.09	28	1.114	1.96	.270
Female	19	37.37	1.73				

Significant at  $P < 0.05$

Table 3 indicated no significant difference ( $t=1.114$ ,  $P=.270$ ) between male and female secondary school students exposed to emotional intelligence training. Thus, the null hypothesis was retained, meaning the training had a similar effect for both genders.

## DISCUSSION

Table 1 indicates that emotional intelligence skills training significantly affects academic self-efficacy, favoring the experimental group. This implies that emotional intelligence training effectively improves academic self-efficacy among secondary school students. This finding aligns with Aremu and Moyosola (2022) who found that emotional intelligence training enhanced teaching self-efficacy in career-frustrated teachers. It is also consistent with Hashemi (2021) who reported a significant relationship between learners' emotional intelligence and self-efficacy. Mishra (2018) also found a positive effect of emotional intelligence on academic achievement in senior secondary school students. Ogundokun and Adeyemo (2021) similarly found emotional intelligence to be a predictor of academic achievement. Social learning theorists suggest that an individual's confidence in performing specific tasks, and thus self-efficacy, can influence crucial learning behaviors such as activity choice, effort, persistence, learning, and achievement. Emotional intelligence skills involve adaptive emotional functioning through interrelated competencies like perceiving, understanding, utilizing, and managing emotions in oneself and others. Researchers have linked emotional intelligence to various intrapersonal and interpersonal factors, including mental health,

relationship satisfaction, and academic/work performance.

The findings in Table 2 revealed that emotional intelligence skills training was effective in improving academic self-efficacy, with the post-test results showing a favorable difference. This is supported by Ahmed and Elmasri (2012) who found that self-awareness training positively affected the development of self-efficacy in nurses. Duval and Silvia (2012) noted that self-awareness and the ability to improve moderate success and failure attribution, affecting self-esteem and academic self-efficacy. Self-management skills have proven useful for various emotional and behavioral issues, improving students' creative abilities and academic success.

Results in Table 3 indicated no gender difference in the effect of emotional intelligence skills training on academic self-efficacy; the training had a similar impact on both male and female students. It is possible that the training helped both male and female students develop similar levels of self-awareness, emotional regulation, and motivation, all of which are key components of academic self-efficacy. This outcome is consistent with previous research by Pennebaker (2021) who found no significant gender difference in emotional intelligence levels after a structured intervention among secondary school students. Likewise, Marzo (2017) reported that both male and female students equally benefited from emotional intelligence training in terms of classroom engagement and academic persistence. This result also aligns with Festus (2021), whose study found a low positive relationship between emotional intelligence and academic achievement in mathematics for both male and female SS2 students in urban and rural schools. This suggests that emotional intelligence, in addition to cognitive factors, influences students' academic achievement. This indicates that emotional intelligence training, when properly administered, transcends gender-related emotional and psychological differences in learning contexts. These findings challenge some traditional assumptions that

females are more emotionally intelligent than males or that males are more resilient to emotional training. Rather, they highlight that with appropriate and structured training, both genders can acquire and apply emotional intelligence skills effectively to improve academic self-belief and performance.

## CONCLUSION

Emotional intelligence skills training was found to be an effective technique for students to improve academic self-efficacy among students, regardless of gender. The treatment led to a noticeable difference between the experimental and control groups. Overall, emotional intelligence skills training proved effective in increasing academic self-efficacy among secondary school students.

## RECOMMENDATIONS

Based on the study's findings, the following recommendations were made:

1. Secondary School Principals, counselors, psychologists, and subject teachers should be exposed to emotional intelligence skills (emotional self-awareness, self-management, social awareness, and relationship management) to help address students' academic problems.
2. Government should integrate emotional intelligence training into the school curriculum to foster students' competence and efficacy in their academic pursuits.
3. School authorities should organise seminars, workshops, and symposiums to train teachers in emotional intelligence skills to help solve students' academic problems in schools.

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