

Perception of Economics Education and Social Studies Education Students' on the Impact of Emotional Intelligence and Critical Thinking in their Course Area

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Abstract

The researchers investigated perception of economics education students' on the impact of emotional intelligence and critical thinking in their course area; a case study of higher institutions in Kogi State. This study adopted a survey design carried out in Higher Institutions in Kogi State. The population of the study is made up of 2327 economics education students from Federal College of Education Okene, Kogi State University, Kogi College of Education, Ankpa. The sample for this study is made up of 206 students using proportionate sampling technique. The researchers utilized a self-constructed ordinal rating scale as the research instrument for the collection of data. The rating scale was titled "Perception of Economics Education Students' on the Impact of Emotional Intelligence and Critical Thinking Students Scale (PEESIEICTSS)" Internal consistency was established on a one shot method of administration using Cronbach Alpha statistic with an index of 0.84, indicating that the instrument is reliable. Mean score and Standard Deviation were used to answer the research questions. The hypotheses were tested using one sample Z-test (also called (Z-test of difference between sample and population means) at a $p < 0.05$ level of significance. Findings revealed that the students' perception on the impact of critical thinking in studying economics education are engage in constructive argument, set assumptions before solving economic problem, interpretation of information, assessment practices in critical areas and cognitive maturity and that the mean score on the student's perception on the impact of critical thinking in studying economics education is significantly greater than the criterion mean of 12.50. The researchers recommended that Economics education course designers and material developers should develop courses and materials with various ways of enhancing emotional intelligence and critical thinking, especially the latter which was found to be significantly below the criterion mean of Economics education students' analytical ability.

Keywords: Economics Education, Social Studies, Emotional Intelligence, Critical Thinking

Introduction

Students' academic disposition is one of the most commonly used criteria for making predictions about personal success. Economics and Social Studies education student's academic disposition reflects on the progress or failure of the students towards their academic achievement. Kahu and Nelson, (2018) opined that a student's academic disposition reflects in the grades or marks that represent the degree in marks or graded in quantitative or qualitatively measures, is the main focus of all stakeholders of the education system. With the use of the cumulative grade point average to indicate the academic performance of students, Ghazanfar and Riffat, (2021) argued that found a strong and significant relationship between cumulative grade point average and academic performance of students.

Economics and Social Studies education are core professional course in the tertiary institutions in Nigeria. It is one of the social science subjects that place value on education while the later heavily utilize statistical and mathematical models to analyse real-life economic problems. Economics is a social science subject that studies human behaviour in an effort to allocate scarce resources efficiently and effectively in order to minimize cost. It is a subject concerned with the efficient utilization or management of limited productive resources for the purpose of attaining the maximum satisfaction of human wants and creates job opportunities. In line with this, Federal Republic of Nigeria, FRN (2013). Economics education students are seen as the potential teachers for the future, who are subject to go through training. Social studies is another social science education course. It is the study of man and his physical, social, political, cultural and economic environment. It centers on the development of man, how man influences his environment and how the environment influences him in return. Utulu and Shaibu, (2013) opined that social studies as "a programme of study which society uses to instill in students the knowledge, skills, values, attitude and actions it considers important, concerning the relationships human beings have with each other, their world and themselves". Social studies focused on man and his interactions with his environment. It also keeps on changing because of the factors of time and human development.

Considering the important role economics and social studies play in the society, it is therefore pertinent that its programme management and implementation should be taken seriously, just as qualified teachers and administrators with the needed economics knowledge are employed to improve the academic achievement of the students. According to Anum and Ogazi (2021), academic achievement in economics education is seen as knowledge or skill developed in the school usually measured by the means of test scores or by marks given by teachers according to the students' performance. It is commonly measured by the means of examinations in economics pedagogy or continuous assessment in the subject area. It represents the level of success of the teaching-learning process. It indicates the extent to which the established goals/objects of economics have been achieved. In this study, it also provides a very useful and necessary time to time feedback of the interactive process between economics

students and the school management. This offers a chance to bother teacher and students to identify or diagnose areas in economics creating obstacles or are required to be changed or modified to achieve the pre-required objectives. Therefore, academic achievement is considered to be a comprehensive term that contains different dimensions of learning.

With the current state of Nigeria educational system, there is a high call for the country's educational system to thoroughly equipped students and expose these students to a variety of cognitive skills such as critical thinking, creative and innovative problem reasoning and learning ability, and affective skills such as emotional intelligence, national consciousness and personal security. To do effectively, critical thinking is needed. In terms of factors affecting economics education and social studies academic achievement, critical thinking has been found the most significant and influential among others (Taylan, Rizwan, & Parsaei, 2017). The researchers have included a range of intellectual abilities and behaviors in the construct of critical thinking comprising evaluation and analysis of arguments and truth claims to understand different perspectives (Ghazanfar & Riffat, 2021) drawing logical inferences from the given information for problem solving and decision making (Ghazanfar & Riffat, 2021); using questioning to understand and explain terms, assumptions, and propositions, developing and presenting plausible arguments (Lithoxidou, & Georgiadou, 2023).

Critical thinking is mainly defined as “purposeful, reasoned, and goal-directed. It is the kind of thinking involved in solving problems, formulating inferences, calculating likelihoods, and making decisions.” and includes reflecting on the thinking process (Halpern, 1998, p. 70). The term critical thinking further embodies reasonable and reflective thinking (Ennis, 2011) critical thinkers are assumed to use certain skills appropriately and consciously in different contexts. In the Delphic Report by American Philosophical Association (APA) as reported by Halpern (2003) it states that ‘we understand critical thinking to be “purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as an explanation of the evidential, conceptual, methodological, criteriological, or conceptual considerations upon which that judgment is based. This perception gives credence to a two-dimensional approach such as the cognitive skill dimension and effective skill dimension. Critical thinking is an essential tool for inquiry (Sahanowas, & Halder 2020). In line with the California Critical thinking Disposition Inventory (CCTDI) open-mindedness, inquisitiveness, systematicity, analyticity, truth-seeking, self-confidence, and maturity are all core to critical thinking. (Ozlem, & Ali, 2022).

Assessing the importance of critical thinking as an educational goal has been widely acknowledged by educators. Teaching Economics education pertains to a complex profession due to its core analytical approach, and its effectiveness relies on the multidimensional teaching process, including cognitive, social, and affective goals. Additionally, teachers' managerial

skills regarding the available time and materials can interfere in the teaching process. All these elements are defined and guided by the needs of students' achievement, who are influenced by factors both inside and outside school settings, such as the class environment and their family background (Lyu, Li, & Xie, 2019). Teachers should be constantly alert and make decisions; hence, they have to be organized and ready to tackle thorny situations, critical incidents, and problems (Darling-Hammond, Wise, & Klein, 1995). This is the reason why student-teachers' competencies are organized into three major categories. The first category refers to their knowledge, the second to their skills, and the third to their attitudes, that is, the way in which they apply their knowledge and skills (Mohamed, Valcke, & De Wever, 2017). Efforts are being made by economics education teachers and educational researchers to engage students, especially economics education students in critical thinking activities. Students, however, economics education seldom use critical thinking skills to solve complex, real world problems which reflects in their academic achievement in school. In the same vein, firms and management parastatal devastatingly agree that the content and quality of education in our universities do not adequately prepare students for the workforce with respect to critical thinking (Taylan, Rizwan, & Parsaei, 2017). This problem has been partly attributed to lack or difficulty in transferring skills across situations and the need for a lengthy exposure to these skills until they become more automatic patterns of action. (Kang 2015).

Another supportive school of thought according to Miriogu and Ugwuoji (2016) posited that emotion might be the other culprit at work in producing this shortfall of good thinking and transfer skills. It proposed that emotion have projective over our thought and hence lays the foundation for any subsequent thinking that follows. Emotions help us to recognize our responses, whether cognitive or behavioural, and direct actions (Abraham & Scaria, 2017). Personal emotion is important in or central to critical thinking, but it is neglected issue and even the literature is scanty and complex (Miriogu & Ugwuoji 2016). The capacity of an individual to act accordingly and respond appropriately to events, requires a broad set of abilities, also defined as intelligence. Emotional intelligence is interdependent on both cognition and emotion, because emotional processes assist thinking and decision making (Marlow, 2015). Teachers are constantly faced with the duty of making decisions in their classrooms. However, these are not random decisions, and these are decisions that have a huge impact in the classroom and on students' behaviour and achievement (Marlow, 2015).

Emotional intelligence is described as a person's ability to access intrapersonal understandings, interpersonal skills, become familiarized to challenging circumstances, to deal with stress, as well as an extent of complete mood (Bardach, 2008). The ability to recognize the meanings of people's emotions and relationships, to reason and have problem-solving skills; Emotional intelligence means being able to perceive emotions, assimilate emotions which are related to feelings, understand the information of those emotions and manage them

(Rizwan, Serbaya, Saleem, Alsulami, Karras, & Alamgir 2021). Similarly, Joseph, Jin, Newman, and O'Boyle (2015) add that Emotional intelligence enables and individual to carry out accurate reasoning or critical thinking about emotions. Emotional intelligence is an emotional construct that assists in the identification, processing and regulation of emotions (positive and negative). Emotional intelligence, works by facilitating emotional behaviours of individuals and assists them to create positive and beneficial interpersonal relationships with others. Damasio (2005) further stated that all human behaviour is influenced by emotion so for a behavioural disposition; the critical thinking disposition should be affected by emotion. He believed that emotion is central to critical thinking, so it can be assumed that emotional intelligence would be associated with critical thinking as also supported by empirical research. The earlier researchers showed a positive reciprocal association between emotional intelligence and critical thinking skill for Iranian EFL (English as Foreign Language) learners and Iranian students (Afshar & Rahimi, 2014) (Vahedi, & HeydarlouImanzadeh, 2015). In view of this, the study proposed a balanced education for economics education students if they must attain their academic achievement. To this end, the goals should not be narrowed down only on the development of cognitive skills alone, the emotional intelligence is critical for these economics education students as it is an important factor that will help them to teach effectively during their teaching practice exercise as well as outside the institution.

Theoretically, Goleman's Emotional Intelligence Theory states that those qualities such as intelligence, toughness, determination, and vision are a requirement for success, but do not stand alone. Leaders who prove to be effective on a long-term basis distinguish themselves by also having a high degree of emotional intelligence, which includes: self-awareness, self-regulation, motivation, empathy, and social skills. However, it is important to note that Goleman's attempt to further explain this phenomenon is not intended to devalue cognitive intelligence, but to illuminate the importance of a person's internal characteristics and organizational success (Bardach, 2008). Empirically, Critical thinking disposition was also positively associated with emotional intelligence of Malaysian graduate students (Kang, 2015). Further, emotional intelligence had a significant effect on critical thinking skill for Iranian EFL learners (Ghanizadeh & Moafian, 2011) and teachers (Ebrahimi & Moafian 2012). Both the critical thinking skill (Vahedi *et al.*, 2015) and disposition (Kang, 2015) were found to be significantly associated with emotional intelligence. Kaya *et al.* (2018) reported that an individual with advanced critical thinking abilities was also likely to have high emotional intelligence for students. It was also found that emotional literacy program designed to develop emotion-related skills can promote overall academic learning by enhancing abstract reasoning and critical thinking (Brackett & Katulak, 2007). Not only overall Emotional intelligence but also some of its factors were also found to be effective for critical thinking.

The ideal emotional intelligence and critical thinking is habitually inquisitive, well-informed, trustful of reason, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry, and persistent in seeking results, which are as precise as the subject and the circumstances of inquiry permit. Economics education is a course program that requires high analytical skill approach, it therefore demands appropriate stability from the students in the course area to be able to solve economic issues using heavy statistical and mathematical models to analyze real-life economic problems. To do this effectively, the students should be able to blend their emotional intelligence and critical thinking to solve some basic economic problems. Unfortunately, these students depend largely on the strength of fortitude to control their negative thoughts and feelings. This to a large extent Impacts their ability to think critically and solve emerging problems. This study therefore seeks to find out the perceptions of these students on the impact of emotional intelligence and critical thinking in their course area.

The main purpose of this study is to examine the perception of economics education students' on the impact of emotional intelligence and critical thinking in their course area. A case study of Higher Institutions in Kogi State.

. Specifically, the study sought to:

1. Ascertain the student's perception on the impact of emotional intelligence in studying economics education and social studies
2. Determine the student's perception on the impact of critical thinking in studying economics education and social studies

Research Questions

The following research questions were posed by the researchers in line with the purpose of the study

1. What are the students' perception on the impact of emotional intelligence in studying economics education and social studies?
2. What the students' perception on the impact of critical thinking in studying economics education and social studies?

Research Hypotheses

H₀₁: The mean score on the student's perception on the impact of emotional intelligence in studying economics education and social studies is not significantly greater than the criterion mean of 12.50.

H₀₂: The mean score on the student's perception on the impact of critical thinking in studying economics education and social studies is not significantly greater than the criterion mean of 12.50.

Methodology

This study is a survey design carried out in Higher Institutions in Kogi State. The population of the study is made up of 2327 economics education and social studies students from Federal College of Education Okene, Kogi State University, Kogi College of Education, Ankpa. The sample for this study is made up of all 206 students using proportionate sampling technique. The researchers utilized a self-constructed ordinal rating scale as the research instrument for the collection of data. The rating scale was titled "Perception of Economics Education and Social Studies Students' on the Impact of Emotional Intelligence and Critical Thinking Students Scale (PESESIEICTSS)". This instrument for the study had 10 items using the four-point scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) weighed as 4, 3, 2, and 1 point respectively. The face validity of the instrument used was carried out by three specialists from the field of Educational Measurement and Evaluation, one specialist from Educational psychology and one specialist from Social Science Education that looked at the instrument and made necessary corrections and constructive criticisms which were useful for the preparation of the final draft of the instrument. One shot method of administration was applied to test for reliability on 20 students from benue State. With this, the items in the instrument were collated and scored. Internal consistency was established on a one shot method of administration using Cronbach Alpha statistic with an index of 0.84, indicating that the instrument is reliable. Mean score and Standard Deviation were used to answer the research questions. The bases for the decision for the research questions' conclusion is that if the mean is from 12.50 and above, it is considered as agreed but if any mean is below 12.50, it is considered to be disagreed. The hypotheses were tested using one sample Z-test (also called (Z-test of difference between sample and population means) at a $p < 0.05$ level of significance.

Results

1. What is the students' perception on the impact of emotional intelligence in studying economics education and social studies?

Table 1 Item by item means of the students' perception on the impact of emotional intelligence in studying economics education and social studies

S/N	Item Statement: impact of emotional intelligence	Economics Education and Social Studies Students			
		n	\bar{X}	SD	Decision
1	I have realistic knowledge of my strengths and weaknesses in the classroom	206	1.72	0.85	Disagreed
2	Students have control over emotions in difficult task areas	206	2.86	0.91	Agreed
3	Being empathetic and perceiving another's thoughts and points of view during class	206	1.81	0.77	Disagreed
4	I gained influencing skills and excellent interpersonal communication skills	206	1.77	1.03	Disagreed
5	helps to being more assertive, and set effective goals;	206	2.72	1.01	Agreed
	Sum		10.88	4.57	
	Mean of Means		2.18		

Table 1 shows the item by item means of the the students' perception on the impact of emotional intelligence in studying economics education and social studies. The results indicated that items 2 and 5 were seen as agreed while items 1, 3 and 4 were seen as disagreed with consideration to the criterion item mean of 2.50. The mean of means scores stood at 2.18. It impliesthat education economics students have control over emotions in difficult task areas and helps to being more assertive, and set effective goals but the students do not have realistic knowledge of my strengths and weaknesses in the classroom, being empathetic and perceiving another's thoughts and points of view during class and gained influencing skills and excellent interpersonal communication skills.

Research Question Two

What the students' perception on the impact of critical thinking in studying economics education and social studies?

Table 2: Item by item means on the students’ perception on the impact of critical thinking in studying economics education and social studies

S/N	Item Statement: impact of critical thinking	Economics Education and Social Studies			
		n	\bar{X}	SD	Decision
6	I engage in constructive argument	206	2.75	0.81	Agreed
7	Set assumptions before solving economic problem	206	2.81	0.84	Agreed
8	Interpretation of information	206	2.83	0.74	Agreed
9	Assessment practices in critical areas	206	2.78	0.76	Agreed
10	Cognitive maturity	206	2.77	0.89	Agreed
Sum			13.94	4.04	
Mean of Means			2.79		

Table 2 shows the item by item means on the students’ perception on the impact of critical thinking in studying economics education and social studies. The results indicated that items 1- 5 were seen as agreed. The mean of means scores stood at 2.79. it implies is that the students’ perception on the impact of critical thinking in studying economics education are engage in constructive argument, set assumptions before solving economic problem, interpretation of information, assessment practices in critical areas and cognitive maturity.

Test of Hypotheses

Ho1: The mean score on the student’s perception on the impact of emotional intelligence in studying economics education and social studies is not significantly greater than the criterion means of 12.50.

Table 3: One sample Z-test of significant difference between the mean score on the student’s perception on the impact of emotional intelligence in studying economics education and social studies is not significantly greater than the criterion mean of 12.50

n	\bar{X}	μ	S.D	Df	Z _{cal}	Z _{crit.}	Decision
206	10.88	12.50	4.57	205	-7.08	1.645	Ho Retained

Table 3 shows significant difference between the mean score on the student’s perception on the impact of emotional intelligence in studying economics education and social studies is not significantly greater than the criterion mean of 12.50. It was indicated in the table that the Z-calculated of -7.08 is less than the Z-tab of 1.645 at one tail test, leading to the

acceptance of the hypothesis which implies that the mean score on the student's perception on the impact of emotional intelligence in studying economics education and social studies is not significantly greater than the criterion mean of 12.50.

H₀₂: The mean score on the student's perception on the impact of critical thinking in studying economics education and social studies is not significantly greater than the criterion mean of 12.50.

Table 4: One sample Z-test of significant difference between the mean score on the student's perception on the impact of critical thinking in studying economics education and social studies is not significantly greater than the criterion mean of 12.50.

n	\bar{X}	μ	S.D	df	Z_{cal}	Z_{crti.}	Decision
206	13.94	12.50	4.04	205	7.12	1.645	Ho Not Retained

Table 4 shows significant difference between the mean scores of the student's perception on the impact of critical thinking in studying economics education and social studies is not significantly greater than the criterion mean of 12.50. It was indicated in the table that the Z-calculated of 7.12 is greater than the Z-tab of 1.645 at one tail test, leading to the rejection of the hypothesis and concluding that the mean score on the student's perception on the impact of critical thinking in studying economics education and social studies is significantly greater than the criterion mean of 12.50.

Discussion of Finding

Students' perception on the impact of emotional intelligence in studying economics education and social studies

The study revealed that economics education and social studies students have control over emotions in difficult task areas and helps to being more assertive, and set effective goals but the students do not have realistic knowledge of my strengths and weaknesses in the classroom, being empathetic and perceiving another's thoughts and points of view during class and gained influencing skills and excellent interpersonal communication skills. This led to the conclusion that the mean score on the mean score on the student's perception on the impact of emotional intelligence in studying economics education is not significantly greater than the criterion mean. Similar to this finding, Taylan, Rizwan, and Parsaei, (2017) during survey, it was revealed that students demand flexibility in instructors' conduct which is closely connected with instructor emotional intelligence. Similarly, Rizwan *et al.* (2021) as the world is struggling

for improvement in every walk of life, therefore with a significant improvement in emotional intelligence, the initiative for the development of instructor's emotional intelligence would strengthen students' satisfaction index which would play a supportive role in the perceiving another's thoughts and points of view during class. Researchers have pursued a relationship between success and intelligences. They have found that traditional IQ to contribute no more than 4% to success while EI contributed more than 25% to success (Joseph, Jin, Newman, & O'Boyle 2015). This leaves a gap of about 70% of people who will be dependent on other kinds of intelligences such as practical intelligence and creative intelligence or critical thinking (Vahedi, Heydarlou, Imanzadeh, 2015).

This finding led to the conclusion that the students' perception on the impact of critical thinking in studying economics education and social studies are engage in constructive argument, set assumptions before solving economic problem, interpretation of information, assessment practices in critical areas and cognitive maturity and that the mean score on the student's perception on the impact of critical thinking in studying economics education is significantly greater than the criterion mean. In consonance with this finding, Lithoxidou, and Georgiadou, (2023) posited that the teaching practicum can offer a 'safe place' for student-teachers to practice skills related to their profession and simultaneously develop their CT skills and dispositions. The reason for this is that they are invited to transfer their knowledge in a simulation of a working environment with real-life problems, set assumptions, interpretation of information, and complex decision making. The findings of Sahanowas, & Halder (2020) shows that, as a general stereotypical misconception, that emotion intervenes and affects our thinking process; emerging theoretical conception supported the mutual positive relation of the two. Elder as cited by Sahanowas, & Halder (2020) argued that the human mind is composed of at least three main functions; namely, cognition, feelings, and volition. While processing is in progress, these three functions, though theoretically distinctive, have a dynamic and intimate relation to each other. It was argued that thoughts and emotions are inextricably bound (Ghanizadeh & Moafian, 2011)

Conclusion

Results revealed a significant effect of emotional intelligence and critical thinking of economics education students. economics education and social studies students admitted to undergraduate level should be oriented about emotional information and literacy to build behavioural awareness of critical thinking which is crucial and the prime necessity at higher education. Both qualities might help to reduce the pressure in the classroom, assist in adjustment and adaptability of solving statistical and mathematical models, have realistic knowledge of their strengths and weaknesses in the classroom, being empathetic by perceiving another's thoughts and points of view during class, and assist the students in attaining emotional maturity.

Recommendations

1. Economics Education and Social Studies learners themselves should seek opportunities to enhance their emotional intelligence and critical thinking abilities if they are to succeed in the long and difficult journey of Economics education program, in general, and acquiring analytical ability, in particular.
2. Economics education course designers and material developers should develop courses and materials with various ways of enhancing emotional intelligence and critical thinking, especially the latter which was found to be significantly below the criterion mean of Economics education students' analytical ability.

References

- Abraham J., & Scaria, J. (2017). Emotional Intelligence: The Context for Successful Nursing Leadership. A Literature Review. *Nurse Care Open Access Journal*. 2(6).19-30
- Afshar, H.S., & Rahimi, M., (2014). The relationship among critical thinking, emotional intelligence, and speaking abilities of Iranian EFL learners. *Procedia- Social Behavioural. Science*. 136, 75–79.
- Anum, O. A., and Ogazi, G.C (2021) Extent of Teachers Application of Blended Learning as Correlate of Education Economics Students Academic Achievement. *ABSU Journal of Educational Studies*. Vol8 (2) Pp 108-115
- Damasio, A.R., (2005). *Descartes' Error: Emotion, Reason and the Human Brain*. Penguin, New York. <https://tinyurl.com/y55o4xgf>.
- Darling-Hammond, L.; Wise, A.E.; & Klein, S.P. (1995) *A License to Teach. Building a Profession for 21st-Century Schools*; Routledge: New York, NY, USA, 1995.
- Ebrahimi, M.R., & Moafian, F., (2012). Does emotional intelligence or self-efficacy have something to do with high school English teachers' critical thinking, considering demographic information? *International Journal Linguistic* 4 (4), 224–242.
- Ennis, R. H. (2011) *Critical Thinking across the Curriculum: A Vision*. *Topoi*, 37, 165–184.
- Federal Republic of Nigeria (2013). *National policy of education*. Abuja: Federal Government press.
- Ghanizadeh, A., & Moafian, F., (2011). Critical thinking and emotional intelligence: investigating the relationship among EFL learners and the contribution of age and gender. *Iran. J. Appl. Lingu.* 14 (1), 23–48

- Ghazanfar, A & Riffat, N. A. (2021) Thinking based Instructional Practices and Academic Achievement of Undergraduate Science Students: Exploring the Role of Critical Thinking Skills and Dispositions. *Journal of Innovative Sciences*. 7(1) 56-70
- Halpern, D. (1999). *Teaching for critical thinking: Helping college students develop the skills and dispositions of critical thinking*. In R. E. Young (Ed.), *New Directions for Teaching and Learning*, no. 80. San Francisco: Jossey-Bass.
- Joseph, D.L., Jin, J., Newman, D.A., & O'Boyle, E.H. (2015). Why does self-reported emotional intelligence predict job performance? A meta-analytic investigation of mixed EI. *A Journal of Applied Psychology*. 100 (2), 298-342.
- Kahu, E.R. and Nelson, K., (2018). Student engagement in the educational interface: Understanding the mechanisms of student success. *Higher Education Research and Development*, 37(1): 58–71.
- Kang, F., (2015). Contribution of emotional intelligence towards graduate students' critical thinking disposition. *Int. J. Educ. Literacy Stud.* 3 (4), 6–17.
- Kaya, H., S, Enyuva, E.,& Bodur, G., (2018). The relationship between critical thinking and emotional intelligence in nursing students: a longitudinal study. *Nurse Educ. Today* 68, 26–32.
- Lithoxoidou, A.; & Georgiadou, T. (2023) Critical Thinking in Teacher Education: Course Design and Teaching Practicum. *Educ. Sci.*, 13, (837) 2-14
- Lyu, M.; Li, W.; Xie, Y. (2019). The influences of family background and structural factors on children's academic performances: A cross-country comparative study. *Chin. J. Sociol.* 5, 173–192.
- Marlow, R. (2015). Teaching Classroom Management: A Potential Health Intervention. *Health Education*, 115(3), 230-248
- Miriogu, C. A., & Umebali, C. O. (2016) Relationship between emotional intelligence and academic achievement among NCE students. *Journal of the Nigerian Society for Psychosocial Research* 6(1) 21-31
- Mohamed, Z.; Valcke, M.; De Wever, B. (2017) Are they ready to teach? Student teachers' readiness for the job with reference to teacher competence frameworks. *J. Educ. Teach.* 2017, 43, 151–170.

- Ozlem, Y. T. & Ali, Y. (2022). Critical Thinking Skills and Dispositions of Turkish Pre-service Teachers: A Systematic Review of Research. *Journal of Theoretical Educational Science*, 15(3), 561-604,
- Rizwan, A., Serbaya, S. H.; Saleem, M.; Alsulami, H.; Karras, D. A. & Alamgir, Z. (2021) "A preliminary analysis of the perception gap between employers and vocational students for career sustainability," *Sustainability*, vol. 13, (20), 113-121
- Sahanowas, S. K. & Halder, S. (2020) Critical thinking disposition of undergraduate students in relation to emotional intelligence: Gender as a moderator. Published by Elsevier Ltd *Heliyon* 6 (2020)1-10 <https://doi.org/10.1016/j.heliyon.2020.e05477>
- Taylan, O. Rizwan, A. & Parsaei, H. (2017) "Optimization of engineering student learning and assessment by cognitive methods," in *Engineering Education Letters*, vol. 2017, no. 1, Ar Rayyan, Qatar, Hamad Bin Khalifa University Press (HBKU Press),
- Utulu, S & Shaibu, J. S. (2013) *Social Studies: Tropical Urbanization, Transportation and Communication in Nigeria.*: Selfers Academic Press Ltd.
- Vahedi, S., Heydarlou, M.M., Imanzadeh, A., (2015). The relationship between emotional intelligence and critical thinking in nursing students of Tabriz University of Medical Sciences. *Develop. Strate. Med. Educ.* 2 (1), 47–57.