

ROLE OF INTELLIGENCE AND CREATIVITY IN THE ACADEMIC ACHIEVEMENT OF STUDENTS

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Abstract

The study was designed to investigate the influence of Emotional Intelligence and creativity on the academic achievement of Business Education Students using Ex- post facto research design. A total of 235 students purposively selected from four College of Education participated in the study. Three research questions were raised and answered in the study. Three instruments: Student Cumulative, Grade Point (CGPA) Information Format (SCIF); Wong and law emotional intelligence scale (WLEIS) and Nicolas Holt Creativity Test (NHCT) were used for data collection. The multiple regression analysis and ANOVA were the major statistical tools used for data analysis. Findings from the study revealed that; emotional intelligence and creativity when combined, jointly predicted the achievement of Business Education Students. It is recommended among others that emotional intelligence and creativity skills should be taught as a separate course with the aim of enhancing students' achievement and positive attitude towards learning.

Key words: Academic achievement, Business education, Creativity, Emotional intelligence.

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Introduction

Business Education as a course is offered at the Colleges of Education and few Polytechnics in Punjab, Pakistan. Business Education offers students opportunity to develop skills, abilities and understanding necessary to enter and progress in particular business occupations. It also prepares students for job competence, occupational intelligence and work adjustment. Ulinfun (1986), and Adeola (2006) opined that skills acquired through business education can lead to individual's economic survival and self-employment. Students' exposure to business skills, according to Adeola (2006) is to create a pool of men and women of character and competence, people who are balanced in their physical, emotional and spiritual well-being and who will be effective in the design and implementation of national development programmes. A good business educator therefore should be emotionally intelligent, creative and innovative

Baron (1996) explained that emotional intelligence is one's ability to deal successfully with other people and with one's feelings. Hence, emotional intelligence involves one's awareness of one's feeling and the feelings of others and capacity to utilize this in directing one's behaviours. Akinboye (2003) defined emotional intelligence as a set of non-cognitive abilities that influence human ability to success in life and at work place. He stressed that for human beings to be successful in life and workplace, they need the skills of emotional intelligence which manifest in attitudes such as honesty, energy, trust integrity, intuition, imagination, resilience, purpose, commitment, courage, conscience and humility. Ciarochi, Chan & Caputi (2000) found that emotional intelligence is positively correlated with such variables as empathy, verbal intelligence, extroversion, openness to feelings, self esteem and life satisfaction.

According to Olatoye, Akintude and Yakasi (2010) emotional intelligence can be conceptualized as a set of acquired skills and competencies that predict positive outcomes at home with one's family, in school and at work. Many studies on emotional intelligence use work-related factors as dependent variables. For example, Moss (2001) found positive relationship between emotional intelligence and leadership style. Duckelt (2002) linked emotional intelligence with increased employees' cooperation, motivation, productivity and increased profit. There is need for research studies that will link emotional intelligence with students learning outcomes. This is to enable students, teachers and counselors know the place of emotional in teaching,

learning and counseling. One good thing about emotional intelligence is that it can be learned. Duckett (2002) asserted that emotional intelligence can be learned at any stage in life.

Animasaun (2007) found that teaching prison inmates' emotional intelligence raised their positive life skills. An immediate concern in this study is that, in the last ten years, attention has further shifted to generic skills like creativity and emotional intelligence, believed to be better predictors of success. In fact, many studies (Goleman, 1995; Hemphill, 2004; Salovey & Mayer, 1990) are now pointing to the fact that creativity and emotional intelligence promote success more than the generic intelligence. Goleman (1995) argued that I.Q contributes only about 20% of life success. This implies that the remaining 80% of such success is accounted for by the other aspect of intelligence such as personality traits, Emotional Intelligence and creativity. This suggests that Emotional Intelligence and creativity can be good predictors of academic achievement and if taught and or enhanced could positively affect academic achievement in schools.

Creativity is fundamental to self-reliance the more self-reliant a person becomes, the better the quality of his/her life, Family, community and Society at large. Creativity enables human beings to get the most out of life experiences and resources. Creativity produces actionable ideas, new concepts, new designs and new opportunities while innovations add values to the new products. According to Akinboye (2003), without creativity, a person is not able to access the fullness of information and resources available but is locked in old habits, structures, patterns, concepts and perception. This is why creativity, generative perception, constructive and design thinking plus innovation should form the basis of any education for sustainable development. Sternberg and Lubart (1996) described creativity as the confluence of intellectual activity, knowledge, motivation, thinking styles, personality and environment.

The studies that focused on academic achievement did so in such a narrow context that cannot support confident generalization. For example, few studies have been conducted among College Student (Drago, 2004) or at the secondary level (Aremu, Tella & Tella, 2006; Adeola & Bolarinwa 2009) and, hence have limited applicability. This is apart from the fact that serious research endeavours, investigating the link between emotional intelligence, creativity and academic achievement in Pakistan are very scanty and or unreported. As a result, it is difficult to make assertions concerning the influence of these variables (emotional intelligence and creativity) or the direction of their influences on academic achievement in Pakistan with sufficient certainty.

Consequently, the debates surrounding the desirability of these skills as strategies for improving students' academic achievement remain unresolved. In the light of the above, this study sought to determine the relative and combined influences of emotional intelligence and creativity on the academic achievement of students in selected Colleges of Education Pakistan.

Research questions

The following questions were raised to guide the study;

- i. What is the composite contribution of creativity and emotional intelligence of Business Education Students to their academic achievement?
- ii. What is the relative contribution of emotional intelligence of Business Education Students to their academic achievement?
- iii. What is the relative contribution of creativity of Business Education Students to their academic achievement?

Methodology of Research

The ex-post-facto research design was adopted in this study. The target population consists of all students of Business Education Programme of four Colleges of Education in Punjab, Pakistan. The sample for the study was two hundred and thirty five on Business Education Programmes. The four Colleges of Education were selected, using purposive technique.

Instrumentations

The under listed three instruments were used for collecting data for this study. These are:

- i. Students Cumulative Grade Point (CGPA) Information Format (SCIF)
- ii. Wong and Law Emotional Intelligence Scale (WLEIS)
- iii. Nicolas Holt Creativity Test (NHCT)

1. Students Cumulative Information Format (SCIF)

The SCIF was designed by the researchers to collect data about the CGPA, matriculation number, school and gender of students. The CGPA was used as a criterion for academic success of students.

2. Wong and Law Emotional Intelligence Scale (WLEIS):

WLEIS is a 16 item self report scale developed and validated by Law and Wong (2002) based on Davies (1998) four-dimensional definition of emotional intelligence. It assesses emotional intelligence competences in four areas as summed in Table 1.

Table 1: Competence Areas and Measuring Items

S #	Area of competence	No of measuring test items
1.	Self-Emotional Appraisal (SEA)	Test item numbers 1-4
2.	Others-Emotions Appraisal (OEA)	Test item numbers 5-8
3.	Use of emotion (UOE)	Test item numbers 9-12
4.	Regulation of Emotion (EOE)	Test item numbers 13-16

This scale was preferred for the following reasons:

- i. It positively built on Mayer, Caruso, Salovey (1999) Emotional Intelligence Test (MSCEIT) that was regarded as being among the best scales (Abu, 2000);
- ii. It contains less number of items. This would minimize the problem of respondents' boredom and impatience usually associated with administering this type of instrument when they are lengthy. This is especially so in respect of students who do not see the exercise as a requirement of their examination success.
- iii. Its construct and criterion validity have been confirmed in the Law and Wong (2002).

The reliability of the instrument was sought through a test-re-test method of two weeks interval. The researchers administered 40 copies of the questionnaire to students of Adeniran Ogunsanya College of Education, Lagos. This College was not included in the major study. Reliability co-efficient value of 0.78 was obtained.

3. **Nicolas Holt Creativity Test (NHCT):**

NHCT is a twenty-nine (29) item instrument, developed by Nicolas Holt to test the level of creativity of persons in the areas of fluency, originality, flexibility and elaboration of traits among others.

The validity of the instrument was sought by distributing the draft copies of the questionnaire to experts in item construction for their criticism and suggestions. The experts' comments/suggestions were incorporated into the final draft of the instruments. The reliability of

the instrument was sought through a test-retest technique of two weeks interval. The researcher administered 40 copies of the questionnaire to students of Adeniran Ogunsanya College of Education, Lagos. Reliability Co-efficient value of 0.86 was obtained for NHCT.

Following the validation of the instruments, permission of the Heads of Department of Business Education of the selected College to use the students were sought and obtained. The assistance of the class coordinators and, in some cases, the HOD, was obtained in addressing the students to elicit their cooperation and in administering the instruments. The meeting of the selected students in each of the institutions was arranged for the administration of the WLEIS and NHCT instruments. This took place just before their scheduled regular classes with the consent of the affected lecturers. The respondents were assured of the confidentiality of their responses and the importance of their role. They were given the opportunity to clarify necessary issues. These were done with a view to enhancing response rate and reducing anxiety and subjectivity, which may interfere with the results of the study.

Data on the students' CGPA were collected from the Business Education Departments of each institution, using the SCIF Format. The rate of return of questionnaires was 100%. In other words the entire questionnaires were completed and returned. CGPA data collected through SCIF were classified to show different levels of academic achievement ranging from 4 representing distinction, 3 (credit) 2.5 merits and 1 pass. This is the grading system approved by the Higher Education Commission Pakistan (HEC) that regulates academic standards in all the Colleges of Education in Pakistan.

Data Analysis

Data were analyzed by using SPSS software, multiple regression analysis and ANOVA run over the variables shows the detail as in table 2.

Table 2: Combined influence of Creativity and Emotional Intelligence on Students' Academic Achievement.

Multiple R = .18

R. square = .03

Adjusted R square = .02

Standard Error = .33

Model	SS	Df	MS	F	P	Remark
Regression	1.06	2	.05	4.13	.01	Significant
Residual	26.71	23	.12			
Total	27.77	23				

Table 2 shows that the combination of emotional intelligence and creativity in predicting the academic achievement of students yielded a coefficient of multiple regression of .18, a multiple R square of .03 and an Adjusted R square of .02. This means that EI and Creativity when combined significantly influence the academic achievement of the students. The two independent variables account for 3.6% of the total variance in students' academic achievement. The table also shows that the analysis of the variance for the multiple regression data produced and F ratio of 4.13 which is significant at .05. We can then conclude that the two factors are relevant in predicting academic achievement of students.

Table 3: Influence of Emotional Intelligence on students' Academic Achievement

R = .16

$R^2 = .03$

Adjusted $R^2 = .03$

Standard Error = .33

Model	SS	Df	MS	F	P	Remark
Regression	818	1	.81	7.54	.00	Significant
Residual	26.84	23	.12			
Total	27.66	23				

Table 3 shows that E.I significantly influences academic achievement of students (R square = .03, P= .00. EI accounts for 3.2% of the total variance in students' achievement.

Table 4: Relative Contribution of Creativity of students` to Academic Achievement.

R = .03

 $R^2 = .000$
Adjusted $R^2 = .004$

Standard Error = .3520

Model	SS	df	MS	F	P	Remark
Regression	4.91	1	4915.04	.00	.95	Not Significant
Residual	28.87	23	.12			
Total	28.87	23				

Table 4 shows that creativity does not significantly predict the academic achievement of students. Creativity does not account for any variance in students' achievement as measured by their CGPA.

Discussion

The study established a direct positive relationship between emotional intelligence and creativity. This implies that an emotionally intelligent student is likely to be creative. This is in line with the conclusion of Cooper and Sawaf (1997) and Akinboye 2003. The findings of this study revealed that emotional intelligence and creativity when combined jointly predict students' achievement. This support the work of Olatoye, Akintunde and Yakasi (2010) that emotional intelligence and creativity are good predictors of achievement of polytechnic students. The result of this study also relevance in the work of Emeke, Adeoye and Torubelli (2006) in their study of creativity, locus of control and emotional intelligence as correlates of academic achievement among adolescents in Senior Secondary School, in which they found that creativity and emotional intelligence significantly correlate with improvement in academic achievement.

This pertinent to mention here that combination of emotional intelligence and creativity envisaged the academic achievement of students or Emotional Intelligence and Creativity when combined significantly influence the academic achievement of the students. Furthermore creativity does not significantly affect the academic achievement of students. This can be concluded that there is an empirical relationship between emotional intelligence, creativity and achievement of the business education students.

Recommendations

Based on the findings, it is recommended that emotional intelligence and creativity should be taught, facilitated and assessed as a separate course, in the education system. Teachers have to be trained to know and adopt methods which foster complementary values like creativity and emotional intelligence- friendly school environment. It is, important that school authorities manage the students and teachers in a ways that encourage the culture of creativity and emotional intelligence values. These values should be recognised and rewarded. Learning environment should be rich in team spirit, tolerance of the genuine mistake caused by creative predisposition and emotional sensitivity.

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