
Academic Achievement of Groups Formed Based on Creativity and Intelligence

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Abstract:

In order “to understand the nature of these linkages throughout the intelligence continuum in 100 students of 10th Class of Government schools of Firozpur Punjab School Education Board and 100 students of 5th class Private schools Firozpur ICSE Board. The investigation was conducted into the connection between creative ability and academic achievement in the subject of English. The Cattell Cultural Fair Intelligence Tests and the Torrance Creative Thinking Tests were administered in order to evaluate the learning levels of the learner's correlation with intelligence and creativity, respectively. The results of the creativity and intelligence tests were used to divide the participants into four groups: high IQ and high creativity, high IQ and low creativity, low IQ and high creativity, and low IQ and low creativity. These four groups' average academic accomplishments were compared with one another. The results of a one-way analysis of variance reveal that there are statistically significant disparities between the four groups' mean scores on academic achievement performance measures. “There were substantial differences between the high IQ-Low Creativity and low IQ-Creativity groups, as well as between the high IQ-Creativity and low IQ-Creativity groups”. Also, there were significant differences between the high IQ-Creativity and low IQ-Creativity groups. The differences in IQ that exist between these two pairings of groups are 48 and 50 points, respectively, making the outcomes of this study entirely foreseeable. On the other hand, there are no discernible differences in terms of academic achievement between the groups of people with high IQs but low creative potential and those with low IQs but high creative potential. This lends credence to the findings of “Getzels and Jackson (1962), Torrance (1959), and Yamamoto (1964a) that highly intellectual and highly creative groups have equal academic achievement”. The “Low IQ - High Creativity” group had an average IQ that was 46 points lower than the “High IQ - Low Creativity” group; however, the “Low IQ - High Creativity” group appeared to be able to compensate by being more creative. In spite of the fact that the latter group had an IQ that is 50 points lower than the former group, the academic performance “levels of the High IQ - High Creativity group and the Low IQ - High Creativity group were found to be equivalent”. This finding is another significant finding. This provides additional support for the conclusions of prior research, which indicated that creativity can assist compensate for a lack of intellect, resulting in improved academic achievement. These findings have significant ramifications for the development of educational programmes and methods of instruction that are targeted at fostering creative thought and enhancing the academic performance of students with varying levels of intellect.

Keywords -: Academic success, creativity, intelligence, intelligence threshold.

Introduction:

Identified discrepancies in academic achievement correlations with between creativity and “intelligence along the intelligence continuum, researchers have been looking into intelligence thresholds in the links between creativity and intelligence”. According to the findings of studies, these distinctions do not exist throughout the IQ continuum. Researchers have also looked at the intelligence thresholds that are involved in the links between academic achievement, creativity and intelligence. This research finds favourable relationships between creative thinking and academic ability; nevertheless, some of them do not find any such associations. These studies focused on data collected from the Government and private schools of Firozpur. This study provides the findings of a survey that was conducted on these connections between 5th and 10th classes, The private School's students are equivalent to the tenth class in the subject of English of Government school. As a consequence, this study investigates the academic factors that have an effect on academic achievement of groups formed based on creativity and intelligence into the connection between creative ability and academic achievement in the subject of English.

Previous search:

The research conducted on 449 high school students and published in 1962 by JW Getzels and PW Jackson Chicago was the study that had the most significant influence on educational psychologists and was the spark that ignited a boom in the field of creativity research. They contrasted a group of students from the middle class who had done well on intelligence exams to kids who had done well on creativity tests devised by Guilford. Both groups had fared well on the intelligence tests. They discovered that children with high levels of creativity had a higher academic performance than students with high IQs, despite the fact that students with high levels of creativity had 20 fewer IQ points than students with high IQs. This suggests that there is a positive relationship between creativity and the ability. Top-tier creatives have demonstrated superior academic performance, despite having an IQ that is, on average, 5 points lower than that of the student body as a whole. The research conducted was criticized for both the way it was designed and the sample procedures that were carried out. However, it was impossible to deny that the study by Getzel and Jackson had educational repercussions. The result has been replicated in a number of additional Torrancecampionis by a number of research investigations. (1962), for instance, carried out this well-known experiment a total of eight times. Students from elementary school participated in five of these studies, one student from middle school, and two students from high school did. It was determined that Getzels' conclusions are supported by six of this research, indicating “that creativity is connected with academic performance. The two studies that” contradicted each other found that creative ability

may be influenced by other elements, such as the range of IQs found in the samples used in the research and the kinds of educational institutions that the students attended.

Conducted a study of high school pupils at the University of Minnesota who were between the ages of 9 and 12 Yamamoto (1964a) reproduces that study The pupils in each class were evaluated on their level of creativity as well as their level of intellect, and then they were placed into one of three groups. The categories were the very intellectual group, which was made up of students who scored in the top 20 percent of the IQ scale but not the top 20 percent of the creativity scale, and the highly creative group (composed of students in the top 20 percent of creativity scores but not in the top 20). percent of total points for creative ability) pupils who scored in the top 20 percent on both the IQ test and the creativity test were considered to be a part of the Highly Intelligent-Highly Creative category. Although there was an average difference of 20 points between the very creative and high IQ groups, observed that there was no difference in academic performance between the two groups. This was despite the fact that there was a difference in IQ of 20 points. People who are creative appear “to be able to compensate for their lack of intelligence with their capacity to be creative” allowing them to attain academic success on par with others who are more intelligent.

The Getzel and Jackson phenomena of equal performance of groups with high creativity and high IQ has, however, not been substantiated by all of the research that has been done on the subject. The contradicting investigations that Torrance (1962) described, which were based on his replication of the Getzels and Jackson research, were among the first of their kind. This phenomenon has been attributed to a great deal of different causes. These factors included the lower level of intellect of the people investigated, the many types of academic abilities that were assessed, and the “presence of an IQ threshold in the association between creative performance and academic achievement”.

It is common practice in different cultural contexts. Method A total of 467 pupils in the fourth grade “from three secondary schools in a township located in the state of Kuantan Pahang in Malaysia were chosen for the study. The students had finished six years of basic school and three years of secondary education, and their average age was 13.3 years old. Students were categorized into the following four subgroups: high IQ - low creativity, also known as the HI-L group (subjects in the top 20 percent of IQ scores but not in the top 20 percent of creativity scores), low IQ - high creativity, also known as the LI-HC group (subjects in the top 20 percent of creativity scores but not in the top 20 percent of IQ scores), high IQ - high creativity” also known as the HI-HC group (subject (Subjects who did not place in the top 20 percent for both their IQ and their creative scores) Intelligence, creative ability, and academic success were each evaluated with one of three instruments. The Cattell Cultural Fair IQ exam scale 2 was

utilised to acquire the intelligence ratings for the participants. Form B. (Cattel & Cattel, 1960).

In order to acquire the different measurements of creativity, “the Torrance Tests of Creative Thinking (TTCT), which included both figurative and verbal a components, were utilized. Figurative form A provides four components of figurative creativity, which are figurative fluency, figurative flexibility, figurative originality, and figurative elaboration. On the other hand, verbal form A gives just three components of verbal creativity. Creativity, namely fluency in language, flexibility in language use, and originality in language use” this is the norm. When calculating the creative composite scores, the scores for each of the individual components were added together.

The students' cumulative grade point averages were added together to determine their academic success. The grades were those attained in the two monthly tests that came before this one. The Lower Certificate of Education, also known as the Sijil Rendah Pelajaran, is a standardized test that was used to determine the courses and certifications that were required.

The demographic breakdown of the participants in this research it can be seen that notwithstanding, there are 57 students with high IQs and 62 kids with high IQs, but there are only 31 students with high IQs and a group with high inventiveness. Indicates whether or not the students have been picked or identified There are 93 very creative students and 62 of them, or almost 67 percent, are not accepted into programmers that pick students entirely based on their IQ scores. This would not be the case “if students were selected solely based on their creativity scores”. Take away around 57 of the 88 really bright students (about 65 percent).

The Objective of The Study

- Compare the intelligence, creativity and academic performance of high school students.
- Compare intelligence, creativity and academic performance between male and female high school students.

Research methodology

The HI-LC group and the LI-HC group do not significantly differ from one another in terms of their academic performance. This lends credence to the findings of that highly intellectual and highly creative groups have equal academic achievement. In spite of the fact that the LI-HC group has an average IQ that is “46 points lower than the HI-LC group, the former appears to be able to compensate for this disparity by having a higher level of creativity”.

The fact that the levels of academic performance “of the HI-HC (Mean Academic Performance = 160.34, SD = 20.55) and LI-HC (Mean Academic Performance = 151.31, SD = 20.55)

groups” were found to be equivalent is one of the most significant findings that emerged from this research. SD). = 25.60) despite the fact that the second group had an average IQ that is 50 points lower than the group that came before it. This provides additional support for the conclusions of prior research, which indicated that creativity can assist compensate for a lack of intellect, resulting in improved academic success.

Even though the LI-HC group had an average IQ that was “9 points lower than that of the general population (mean academic achievement = 151.31, SD = 25.60), there were no significant differences in their academic results”. This is an additional crucial discovery. Once more, one might reach the same conclusion: creativity can help boost academic success by providing a balance to intellect.

Both the HI-HC group with a mean academic performance of 160.34 and the HI-LC group with a mean academic performance of 159.58 and a standard deviation of 21.43 attained comparable academic performance ratings. This conclusion implies that increased creativity may not contribute to improved academic success “at very high IQ levels (in this study, an IQ of 140 or higher was considered extremely intelligent). This lends credence to the hypothesis that there is maybe an intelligence threshold that delineates the nature of the link between creative output and academic success”.

Discussion

Getzels and Jackson (1962), Torrance (1959), and Yamamoto all found that the equal academic performance of “the HI-LC and LI-HC groups confirmed the findings that they had previously published (1964a). The fact that similar results were obtained in a different culture with a different educational system after a period of approximately 40 years contributes to the generalisation of this phenomenon of a positive correlation between creative accomplishment and academic achievement across all cultures and educational systems”.

The fact that the HI-HC group's accomplishment scores were quite close to those of the LI-HC group provides more evidence that creativity plays a significant role in academic performance. The fact that students who are not in the wealthiest 20 percent of IQ do as well as students who are in the richest 20 percent of IQ, perhaps owing to the high degree of creativity that these students possess, can be regarded a significant outcome of this study. This discovery also gives empirical data and support to argue for creativity improvement initiatives and programmes in Punjab School Education Board and ICSE Board School.

It would appear that the strength of the link between creative ability and academic achievement decreases when one's IQ increases to very high levels. This finding appears to provide support

for the threshold idea with relation to this matter. It would indicate that after an individual's IQ reaches about 140, creative ability stops being a factor in improving academic achievement. However, this discovery seems to contradict the findings of Yamamoto's (1964b) study, which discovered that academic performance might be improved by creative ability above an IQ level of 120. It is possible to draw the conclusion that while the intelligence threshold notion does have some validity, the nature of the link between creative ability and academic accomplishment appears to be different in this Malaysian sample depending on whether one is above or below the threshold. These linkages, as well as the idea of threshold intelligence, will be understood better as a result of more research that employs other samples and various measurements of creative ability, intellectual capacity, and academic accomplishment.

Conclusion

The findings of this study provide empirical evidence of the positive association between creative output and academic performance. Additionally, the researchers came to the conclusion that the nature of this relationship appears to change along a continuum that corresponds to a person's level of intelligence. This relationship seems to be beneficial up to an intellectual threshold of around 140, but after that, it seems to become less beneficial. Additional study is required to investigate the nature of the link between these two characteristics, both in terms of academic accomplishment and in other situations, so that it can be determined whether or not this conclusion is applicable to diverse contexts and cultures.

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