

Extended Abstract

**A Study of the Critical Thinking Skills and their Relation with
National College Entrance Examination Rank**

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Introduction

Critical thinking is very different from criticism; it is basically a positive activity in all adult activities, including the interpersonal relationships and working activities. Critical thinking is considered a fundamental cognitive process for knowledge development and utilization; and it is applicable to problem solving and decision making in any context whether it is social, clinical, ethical, managerial, or political. Critical thinking is an important outcome criterion of higher education in any discipline. The ability to think critically is one of the most crucial survival skills in the society today. The lack of these skills can keep people from participating effectively in a democratic society.

Considering the importance of thinking in educational system and the necessity of equipping learners with critical thinking skills to deal with social complications and scientific affairs of today's world demands more serious programming and planning by education professionals. In collegial education, teaching and learning based on

this idea is of special importance but a question has been raised as to what degree the selected individuals to the universities have been trained based on this method and whether their scientific potentials correlate with this thought? Therefore, the present study was designed with the objective of the relationship between National College Entrance Examination Rank (NCEER) and the Critical Thinking Skills Test Score (CTSTS) in Isfahan University (IU).

Questions

1) Is there a correlation between National College Entrance Examination Rank (NCEER) and the Critical Thinking Skills Test Score (CTSTS) in Isfahan University (IU)?

2) Are there significant differences in Critical Thinking Skills Test Score among girl and boy students?

3) Are there significant differences in Critical Thinking Skills Test Score among faculties?

Methods

The present study is of descriptive- correlation type. The statistical society of the present study was 199 students who entered the University in academic year of 2006 - 2007 and in Isfahan University and in all colleges of that University. Proportional stratified sampling was used in this study. Information was gathered by giving a standard test of critical thinking skills California (B form) a 34-item multiple-choice test with five subscales analysis (0-9), evaluation (0-14), inference (0-11), inductive reasoning (0-14), and deductive reasoning (0-16) measuring critical thinking skills. The established mean was 15.89. A score of <15.89 refers to a weakness in critical thinking skills, and a score of >15.89 refers to a strength in critical thinking skills. Moreover, the standard test of critical thinking skills has been used effectively with graduate and professional school students. The length of time necessary to administer the standard test of critical thinking skills is 45 minutes. The validity of test was determined to be .68 to .70. The methods of analysis included

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descriptive statistics and inferential statistics of t- tests, analysis of variance, and Pearson Product Moment correlations also, for differences among groups using post-hoc (LSD) analysis, with a level of significance set at (0.05). Descriptive and inference statistics with the help of SPSS₁₅ software was used to analyze the data.

Results

The results showed that the mean of scores from the test of critical thinking skills was

(11.46 ± 3.30) for the students from Isfahan University (IU). In IU, the college of engineering and the college of humanities had the higher and the lower means (CTSTS) respectively. In College of Humanities there was a significant correlation between National College Entrance Examination Rank and the score from critical thinking skills in evaluation domain and in total score of the test, as well as between students' ranks and the score from analysis over all. In comparing the mean scores of students (girl and boy) from the whole of Isfahan University, boys' mean scores from deductive reasoning domain was higher than girls', and it shows a significant difference ($p < 0.05$). But there was not any significant difference between boys and girls in other domains (analysis, evaluation, inference, and inductive reasoning).

Conclusion

Study findings indicate that in national college entrance examination, no attention is given to critical thinking skills. Therefore, the individuals who have the better critical thinking skills did not gain a better rank from entry test. Mean value in (IU) is lower than medium so it seems necessary to consider educational planning to upgrade students' critical thinking and with regard to the reported scores, administrators and teachers should pay more attention to their educational planning in developing cultivating critical thinking skills.

Keywords: Critical thinking, rank, national college entrance examination, Isfahan University, students