

EFFECT OF EXAMINATION SYSTEM AND PERSONALITY ON ACADEMIC STRESS OF SECONDARY SCHOOL STUDENTS

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Examination in education is a process by which one attempts to measure the quality and quantity of learning and teaching using various (assessment) techniques such as assignments, projects, continuous assessment, objective type tests, final examinations and standard tests”.

The International Dictionary of Education

Thus, it is abundantly clear that Examination involves more than testing, examining, marking, grading and so on, because it also includes making judgment about the extent or quality of achievement or performance.

Why is Examination Reforms necessary?

There is need for functional and reliable system of school-based evaluation. There is often a lack of full disclosure and transparency in grading. While number of boards use good practices in pre-exam and exam management there remain several glaring shortfalls at several boards. The quality of question papers may be low. They usually stress rote memorization and fail to test higher-order skills like reasoning and analysis, let alone lateral thinking, creativity and judgment. Indian School board exams are largely inappropriate for the 'knowledge society' of the 21st century and its need for innovative problem-solvers. They do not serve the needs of social Justice. They are inflexible. Based on a 'one-size-fits-all' principle, they make no allowance for different types of learners and learning environments. They include an inordinate level of anxiety and stress, In addition to widespread trauma, mass media and psychological counsellors report a growing number of exam-induced suicides and nervous breakdowns.

The term examination has come to be associated with 'stress' and 'anxiety'. The process of teaching - learning which is supposed to be meaningful for the student loses its joy because of these negative connotations of examination. Schools begin ranking students, on the basis of their marks, from as early as their pre- primary years. Such a drive has several negative effects on learning. Students, parents and society at large throws students into the race to acquire more and more marks in examinations, which leads to an extremely stressful existence. Moreover, though all our efforts are made to enhance the reliability of examination, the human error cannot be avoided. Can this

shortcoming be overcome by placing the students' marks in a range of scores? This is all what grading system is about.

After going through the related literature it is clear that many studies have been conducted on grading system but only two studies could be found which were conducted on comparison of Grading system and Marking system namely by Jayshree and Kumar (2013) and Kumar (1991). They found that Students of Grading system possess less Stress and the Grading system is as consistent as Marking system.

Above scenario reflects that a very few studies have been conducted comparing grading system of examination and marking system of examination, and perhaps none, in terms of affective domain variables.

Thus, there was a gap, requiring further studies in this area. Keeping this in mind the researcher decided to undertake the present study.

STATEMENT OF PROBLEM

The problem was worded as given below:

Effect of Examination System and Personality on Academic Stress of Secondary School Students

OBJECTIVE

1. To study the influence of Examination System, Personality and their interaction on Academic Stress of students.

HYPOTHESIS

1. There is no significant influence of Examination System, Personality and their interaction on Academic Stress of students

DELIMITATIONS

Some of the delimitations of the study which countenanced by researcher were:

1. The study was limited to Indore city only.
2. The study was limited to 9th class students only.
3. The study was limited to selected affective domain variables only.

SAMPLE

The sample of the research comprised of 483 class IXth students belonging to both Private and Government C.B.S.E. Schools and Private and Government M.P. Board schools of Indore city. The sample was selected using Stratified Purposive Sampling Technique. First the list of schools was stratified into two categories viz., Marking System of Examination and Grading System of Examination. Students of M.P. Board schools were kept in group of Marking System of Examination and Students of C.B.S.E. Board schools were kept in group of Grading System of Examination. Then again both the type of schools were stratified into two categories viz., C.B.S.E. board Government schools, C.B.S.E. board private schools, M.P. board Government schools and M.P. board private schools. Then the schools were chosen. For C.B.S.E. board Government school Kendriya Vidyalaya no. 1 Indore was taken, for C.B.S.E. board private school, Columbia Covent School, Vidyasagar School, and Pragya Girls School were taken. For M.P. board Government schools, Kasturba Kanya Vidyalaya and Sanyogitaganj School were taken and for M.P. board private school, Parijat School was taken.

RESEARCH DESIGN

Present study is a Survey Study, in which, two groups were taken for research work. First group had Marking System of Examination, while the second group had Grading System of Examination.

TOOLS

The data was collected in respect of Personality by administering Eysenck's Maudsley Personality Inventory and Academic Stress by administering Bisht Stress battery.

METHODOLOGY

First, the permission from the principals of C.B.S.E. schools and M.P. Board schools were taken and the students were briefed about the objectives of the study and a rapport was established with the students. The students were made aware about the procedure of taking exam, time of tests and day and date of tests. On completion of the test, the booklets and copies were collected back. The collection of data from a single school took about two weeks. After getting the responses, the scoring of all the responses of students were done as per respective Manuals of the tools. The collected data were analyzed with the help of appropriate statistical technique(s).

DATA ANALYSIS

INFLUENCE OF EXAMINATION SYSTEM, PERSONALITY AND THEIR INTERACTION ON ACADEMIC STRESS OF STUDENTS

The objective was to study the influence of Examination System, Personality and their interaction on Academic Stress of students. There were two levels of System of Examination namely, Grading System

and Marking System of Examination. The Personality was categorized into two levels namely, Introvert and Extrovert. Thus, there were two levels of System of Examination and two levels of Personality. Therefore, the data were to be analyzed with the help of 2 X 2 factorial design Analysis of Variance, subject to fulfillment of assumptions of two way ANOVA. Thus, before proceeding further, the basic assumption underlying ANOVA, i.e., Normality of distribution, was tested with the help of Kolmogorov-Smirnov (K-S) test of Normality. Result and interpretation of K-S test of Normality for Academic Stress of students of different Systems of Examination are given under caption 4.2.0 and the data were not found normal. Further, the Normality, of Academic Stress of Extrovert and Introvert students was analyzed with the help of Kolmogorov-Smirnov (K-S) test of Normality. Results of K-S test of Normality for Academic Stress of Extrovert and Introvert students are given in table 1 below.

Table 1.

Summary of Kolmogorov-Smirnov test of Normality for Academic Stress of Extrovert and Introvert students of grade IX

Personality		Kolmogorov-Smirnov		
		Statistic	df	Sig.
Academic Stress	Extrovert	.126	239	.000
	Introvert	.059	244	.038

From table 1, it is clear that the value of Kolmogorov-Smirnov statistics for Academic Stress of Extrovert students is 0.126, for which the significance value is 0.00 with df = 239, which is less than the 0.01 level of significance, therefore it is significant at 0.01 level of significance. Hence, the null hypothesis “the Academic Stress scores of Extrovert students do not significantly deviate from normality” is rejected. Therefore, it can be concluded that the Academic Stress scores of Extrovert students are not distributed normally.

Further, for Academic Stress of Introvert students the value of Kolmogorov-Smirnov statistics is 0.059, for which the significance value is 0.038 with df = 244, which is also less than 0.05 level of significance, therefore it is significant at 0.05 level of significance. Hence, the null hypothesis “the Academic Stress scores of Introvert students do not deviate significantly from normality” is rejected. Therefore, it can be concluded that the Academic Stress scores of Introvert students are not distributed normally.

The distribution of Academic Stress scores of students having different System of Examination and of different Personality deviate from normality. Therefore, the basic assumption of ANOVA, i.e., the scores should be distributed normally, is not fulfilled. Hence, 2x2 factorial design ANOVA cannot

be used for analysis. Since, Non-parametric tests dispense with the assumption of normality, corresponding Non-parametric test was used. For this reason, Mann-Whitney U test and Kruskal-Wallis test (depending on levels of independent samples) were used for analysis. Thus, the following two influences contained in the third objective i.e.,

- Influence of System of Examination on Academic Stress

- Influence of Personality on Academic Stress

were analyzed separately using the above mentioned Non-parametric tests.

1. Influence of System of Examination on Academic Stress

The first part of the first objective was to study the influence of System of Examination on Academic Stress. There were two levels of System of Examination namely, Grading System of Examination and Marking System of Examination. The data were analyzed with the help of Mann-Whitney U test. The results are given in table 2 below.

Table 2.

Summary of Mann-Whitney U test for comparison of Academic Stress of students belonging to different Systems of Examination

	System of Examination	N	Mean Rank	Sum of Ranks	Z value	Mann-Whitney U	Sig.
Academic Stress	Grading	283	195.01	55186.50	8.804	15000.500	0.00
	Marking	200	308.50	61699.50			
	Total	483					

From the table 2, it is clear that the value of Mann-Whitney U for Academic Stress is 15000.500 (and Z is 8.804), for which the value of two-tailed significance is 0.00, which is less than 0.01 level of significance, therefore U-value is significant at 0.01 level of significance. In this view, the null hypothesis “there is no significant difference between the mean ranks of Academic Stress of students of Marking System and Grading System of Examination”, is rejected. Hence, there is significant difference between the mean ranks of Academic Stress of students of Marking System and Grading System of Examination.

From the above table, it is clear that the value of mean ranks of Academic Stress of students of Marking System of Examination is 308.50 which is significantly greater than the value of mean ranks of Academic Stress of students of Grading System of Examination which is 195.01. Therefore, the Academic Stress of students of Marking System of Examination is greater than the students of Grading System of Examination. More the value of mean ranks Academic Stress, more the Academic Stress will be.

2. Influence of Personality on Academic Stress

The second part of the third objective was to study the influence of Personality on Academic Stress. The Personality of the students was categorized into two levels namely, Extrovert and Introvert. Since Personality has two levels, the data were analyzed with the help of Mann-Whitney U test. The results are given in table 3 below.

Table 3

Summary of Mann-Whitney U test for comparison of Academic Stress of Extrovert and Introvert students

	Personality	N	Mean Rank	Sum of Ranks	Z-value	Mann-Whitney U	Sig.
Stress	Extrovert	239	200.44	47904.50	6.478	19224.500	.000
	Introvert	244	282.71	68981.50			
	Total	483					

From the table 3, it is clear that the value of Mann-Whitney U for Academic Stress is 19224.500 (and Z is 6.478), for which the value of two-tailed significance is 0.00, which is less than 0.01 level of significance, therefore U-value is significant at 0.01 level of significance. In this view, the null hypothesis “there is no significant difference between the mean ranks of Academic Stress of Extrovert and Introvert students”, is rejected. Hence, there is significant difference between the mean ranks of Academic Stress of Extrovert and Introvert students.

Also, from the above table, it is clear that the value of mean rank of Academic Stress of Extrovert students is 200.44 which is significantly lesser than the value of mean ranks of Academic Stress of Introvert students which is 282.71. Therefore, the Academic Stress, of Introvert students, is more than the Extrovert students. More the value of mean ranks of Academic Stress, more the Academic Stress will be.

FINDINGS AND DISCUSSION

Hence, it can be concluded that the Grading System is better in terms of Academic Stress as compared to Marking System.

The present finding is supported by Kumar (1991) who also found that there is significant influence of the evaluation system on the examination stress of the students studying under grading system and marking system of evaluation. Students belonging to Grading System possess low Academic stress may be due to they are free from stress of marks. They are aware of the fact that minute difference in their marks will not make any difference because a range of marks will get a set grade. Hence they possess low Academic Stress.

The second finding was that the Extrovert students possess less Academic Stress.

The Extrovert students possess less Academic Stress as compared to Introvert Students. This might be due to the reason that, the extrovert students are usually in good books of teachers and students. They always grab attention of teachers and ask their queries without hesitation. And on the other hand introvert students vacillate to ask even the needful. Hence, they possess more Academic Stress.

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