



INTERACTIVE EFFECT OF SELF-ACTUALIZATION, SELF-ESTEEM AND SELF-ALIENATION ON ACADEMIC ACHIEVEMENT

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ABSTRACT

The purpose of this research was to study the interaction effects of selfactualization, self-esteem, and self-alienation on academic achievement. The standardized tools: (a) Self-actualization survey Jones & Crandall (1986), (b) Self-esteem inventory Coopersmith (1967), (c) Selfalienation scale Burbach (1972) were used to collect data. A sample of 200 students studying at the +3 stage in ten private aided and unaided degree colleges were selected using random sampling technique. 3-way ANOVA technique was used to study the interaction effect of independent variables on dependent variable. The study revealed that : (i) students' achievement in History was influenced by their high self-actualization with high/low self-esteem; (ii) students' achievement in Political Science was influenced by their high selfactualization and high self-alienation; (iii) students' achievement in Economics was influenced by their high self-esteem; (iv) high selfactualization together with high self-esteem influenced upon achievement in Sociology; (v) students' high self-actualization and high self-esteem influenced on their total academic achievement; and (vi) students' total academic achievement was influenced by their high selfactualization and high self-alienation.

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1. Introduction

Maslow (1954, 1962, 1971) and Rogers (1961) assumed that all persons have an intrinsic potential for self-actualization. According to Maslow (1968), people's basic needs must be sufficiently gratified before they can pursue the fulfillment of what he calls the higher, transcendent meta needs related to self-actualization. Maslow asserted that people's complete psychological maturation occurs only when their potentialities are fully developed and actualized. Rogers (1970) stated that self-actualization is a process of differentiating potentialities inherent in the makeup of the individual. This process, which is forward-moving, constructive and self-enhancing, becomes possible only when people receive positive regard from others and learn to think positively of themselves. Each individual, according to Rogers, has the capacity to be self-aware and to label what occurs accurately. When an individual's self-concept is relatively congruent with his or her experience, the actualizing tendency can operate without impediment. The individual can develop, then, into a fully functioning person who is open to the richness of experience, who has few defenses and who is self-aware.

In the present study, self-actualization has been defined as the "means for actualizing one's potentials, becoming everything one is capable of becoming". It is a person's desire for self-improvement or actual use of potentials, talents and capacities.

2. Rationale

Maslow (1954) has stated that the positive aspects of achievement value are to have a sense of attainment, self-actualization or self-fulfillment. Quite a few studies have appeared to examine the relationship between self-actualization and achievement values (Leib and Snyder, 1968; Ridge, 1969; Lemay, 1969; Schroeder, 1973; Ferrier, 1974). Strathe and Harsh, 1979; Srivastava, 1981; Verma, 1990; Jibril, 1993 reported a significant relationship between academic achievement and self-esteem for all individuals at all grades. Verghese, 1977; Pattnaik, 1983; Sharma, 1983; Tilak, 1995 found a significant negative correlation between educational and alienation levels. These studies examined the relationship between the selected variables and academic achievement separately. Very few studies have attempted to investigate 'interaction effects' of these variables on academic achievement. Therefore, there is a need to bring these factors together and to study their interaction effects. Hence, the present study is an attempt to examine the interaction effect of these selected variables on academic achievement of students.

3. Hypotheses

- 1. Effects of high and low self-actualization differ in terms of their influence on academic achievement in History (H_1), Political Science (H_8), Economics (H_{15}), Sociology (H_{22}), and total achievement (H_{29}).
- 2. Effects of high and low self-esteem differ in terms of their influence on academic achievement in History (H_2), Political Science (H_9), Economics (H_{16}), Sociology (H_{23}), and total achievement (H_{30}).

- 3. Effects of high and low self-image differ in terms of their influence on academic achievement in History (H_3), Political Science (H_{10}), Economics (H_{17}), Sociology (H_{24}), and total achievement (H_{31}).
- 4. Interaction effect of self-actualization X self-esteem differ in terms of their influence on academic achievement in History (H_4), Political Science (H_{11}), Economics (H_{18}), Sociology (H_{25}), and total achievement (H_{32}).
- 5. Interaction effect of self-actualization X self-alienation differ in terms of their influence on academic achievement in History (H_5), Political Science (H_{12}), Economics (H_{19}), Sociology (H_{26}), and total achievement (H_{33}).
- 6. Interaction effect of self-esteem X self-alienation differ in terms of their influence on academic achievement in History (H_6), Political Science (H_{13}), Economics (H_{20}), Sociology (H_{27}), and total achievement (H_{34}).
- Interaction effect of self-actualization X self-esteem X self-alienation differ in terms of their influence on academic achievement in History (H₇), Political Science (H₁₄), Economics (H₂₁), Sociology (H₂₈), and total achievement (H₃₅).

Method

Sample

The sample consisted of 200 students studying at the +3 stage in ten private aided and unaided degree colleges affiliated to Karnatak University. It involved equal number of boys (100) and girls (100) covering both urban and rural areas in Dharwad district. In selecting the colleges as well as students, the random sampling technique was used.

Tools Used

For the purposes of the present study the investigator has adopted following four tools:

- Self-actualization Survey (1986) developed by Jones and Crandall. It
 measures four aspects of self-actualization: autonomy, self-acceptance,
 acceptance of others emotions, trust and responsibility in interpersonal
 relations. It consists of 60 items, total score ranges from 15 to 60. Also,
 scores on this survey are positively related with other scales. The test-retest
 reliability was found to be 0.79.
- 2. Self-esteem Inventory (1967) developed by Coopersmith. It was a 60-item scale measuring an individual's perception in four areas: self, peers, parents and college. The subject is requested to check 'Like me' or 'Unlike me' to each statement. The total number of ticks in the 'Like me' boxes forms the score for self-esteem. The test-retest reliabilities range from 0.88 (5-week period) to 0.70 (3-year period).

- 3. Self-alienation Scale (1972) developed by Burbach. The 27-items (9 from each dimension of powerlessness, meaninglessness and social estrangement) formed the scale of self-alienation. It is a 5-point scale ranging from 'strongly agree' to 'strongly disagree'. The weights were assigned as 1, 2, 3, 4, or 5. Test-retest reliability was 0.64 (4-week period). Alienation was significantly correlated with low self-concept (r = -0.38) and low self-esteem (r = -0.27).
- 4. Academic Achievement, which was considered as dependent variable in the study, was measured by taking the students' annual examination marks in History, Political Science, Economics, and Sociology at the final year degree level. In order to get the marks from different colleges comparable, the raw scores were converted into standard scores before subjecting them to analysis. The Karnatak University commonly set the question papers in different subjects at the annual examination. All the affiliated colleges covered under the present sample used these question papers. The content validity of the question papers in different subjects was also established by giving them to five teachers in concerned subjects. They were found to be comprehensive and relevant by the judges.

Procedure

The self-actualization scale, self-esteem scale, self-alienation scale were administered to the sample of 200 degree students from two types of colleges, viz., private aided and unaided by the researcher himself. Directions were clearly given to the students with a request for truthful answers. Annual marks in the different subjects were noted from the college records regarding the academic achievement.

Statistical Techniques

Three-way ANOVA was used to find out the main effects and interaction effects of the independent variables on the academic achievement of the degree college students. The multiple comparison of means was carried out using the Scheffe's test in order to identify the exact treatment groups with high or low means.

5. Results

Analysis of Data Pertaining to History

The results of the analysis pertaining to hypotheses H_1 to H_7 for achievement in History are presented in Table 1.

Table 1. Summary Table of ANOVA for Achievement in History

Source of	ф	Sum of Squares	Mean Squares	F - ratio	p - value	Signi- ficance	Results
Main Effects							
S-actualization	_	1259.5370	1259.5370	3.9095	<0.05	Yes	H ₁ – Accepted
Self-esteem	-	472.7270	472.7270	1.4673	>0.05	NS	H ₂ – Rejected
Self-alienation	_	979.0260	979.0260	3.0388	<0.05	Yes	H ₃ – Accepted
2-way Interactions							
SA X SE (A X B)	-	1222.5410	1222.5410	3.7946	<0.05	Yes	H ₄ – Accepted
SA X SAI (A X C)	_	147.1930	147.1930	0.4569	>0.05	NS	H _s – Rejected
SEXAL(BXC)	_	59.3620	59.3620	0.1843	>0.05	NS	H _s – Rejected
3-way Interactions				-			
SA X SE X SAL (A X B X C)	_	2.0130	2.0130	0.0062	>0.05	NS	H ₇ – Rejected
Error	192	61857.8880	322.1765				
Total	199	66000.2870	4464.5755				

NS – Not Significant

H – Hypothesis

The data shows that the F values of 3.9095 (df=1, 192) for 'self-actualization' (H_1) ; 3.0388 (df=1, 192) for 'self-alienation' (H_2) ; and 3.7946 (df=1, 192) for interaction between 'self-actualization' and 'self-alienation' (H_4) were significant at 0.05 level. Hence, hypotheses H_1 , H_3 and H_4 were found tenable, thereby indicating that the significant variance in the achievement in history was contributed by the variables 'self-actualization' and 'self-alienation' separately, as well as, 'self-actualization' and 'self-esteem' in combination.

The significance of the interaction effect between 'self-actualization' X 'self-esteem' further lead to the comparison of means of treatment groups using Scheffe's test (Sax, 1979:392). The simultaneous confidence intervals for all possible comparison of treatment groups are presented in Table 2.

Table 2. Scheffe's Multiple Comparison of Means for Achievement in History

SI. No.	Treatment	Corresponding Means	Simultaneous Confidence Interval	P-value	Signific ance
1	a ₁ b ₁ X a ₂ b ₂	59.6105 – 51.4769	6.5308 – 10.0742	<0.05	Yes
2	a ₁ b ₂ X a ₂ b ₂	59.7692 – 51.4769	6.0295 – 10.7947	<0.05	Yes

 a_1 = High Self-actualization; a_2 = Low Self-actualization; b_1 = High Self-esteem; $b_2 = Low Self-esteem;$

Note: 1. Higher mean score on History indicate higher achievement ability in History 2. Comparison of other treatment groups on History was found to be not

significant.

The analysis shown in Table 2 reveals that the mean score of high self-actualization and high self-esteem (59.6105) was greater than the mean score of low selfactualization and low self-esteem (51.4769). Further, the mean score of high self-actualization and low self-esteem (59.7692) was greater than the mean score of low self-actualization and low self-esteem (51.4769). It implies that students' achievement in History was influenced by their high self-actualization with high/low self-esteem than their low self-actualization with low self-esteem.

Analysis of Data Pertaining to Political Science

The results of the analysis pertaining hypotheses H_8 to H_{14} for achievement in Political Science are presented in Table 3.

Table 3. Summary Table of ANOVA for Achievement in Political Science

Source of Variation	₩	Sum of Squares	Mean Squares	F - ratio	p - value	Signi- ficance	Results
Main Effects							
S-actualization	-	578.9207	578.9207	3.7919	<0.05	Yes	H ₈ – Accepted
Self-esteem	_	830.7435	830.7435	5.4413	<0.05	Yes	H ₉ – Accepted
Self-alienation	-	470.5181	470.5181	3.0819	<0.05	Yes	H ₁₀ – Accepted
2-way Interactions							
SA X SE (AXB)	_	18.0434	18.0434	0.1182	>0.05	NS	H ₁₁ – Rejected
SA X SAL (AXC)		534.9047	534.9047	3.5036	<0.05	Yes	H ₁₂ – Accepted
SE X SAL (BXC)	_	22.6139	22.6139	0.1481	>0.05	NS	H ₁₃ – Rejected
3-way Interactions							
SA X SE X SAL (A X B X C)	-	30.7301	30.7301	0.2013	>0.05	NS	H ₁₄ – Rejected
Error	192	29313.1934	152.6729				
Total	199	31799.6677	2639.1472				
NS – Not Significant,		H – Hypothesis	sis				

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The data shows that the F values of 3.7919 (df=1, 192) for 'self-actualization' (H_{8}); 5.4413 (df=1, 192) for 'self-esteem' (H_{9}); 3.0819 (df=1, 192) for 'self-alienation' (H_{10}); and 3.5036 (df=1, 192) for interaction between 'self-actualization' and 'self-alienation' (H_{12}) were significant at 0.05 level, thereby lending support to underlying hypotheses H_{8} , H_{9} , H_{10} and H_{12} . However, the F values for other interactions being not significant (H_{11} , H_{13} , and H_{14}) indicated that they have not made any significant contributions to the total variance.

Table 4. Scheffe's Multiple Comparison of Means for Achievement in Political Science

SI. No.	Treatment	Corresponding Means	Simultaneous Confidence Interval	P-value	Significance
1	a ₁ c ₁ X a ₂ c ₂	62.4711 - 57.8583	5.4971 - 3.9813	< 0.05	Yes

 a_1 = High Self-actualization; a_2 = Low Self-actualization; c_1 = High Self-alienation; c_2 = Low Self-alienation;

- Note: 1. Higher mean score on Political Science indicate higher achievement ability in Political Science.
 - Comparison of other treatment groups on Political Science was found to be not significant.

The analysis shown in Table 4 reveals that the mean score of high self-actualization and high self-alienation (62.4711) was greater than the mean score of low self-actualization and low self-alienation (57.8583). It, further, implies that their high self-actualization and high self-alienation than their low self-actualization and low self-alienation influenced on students' achievement in Political Science.

Analysis of Data Pertaining to Economics

The results of the analysis pertaining to hypotheses H_{15} to H_{21} for achievement in Economics are presented in Table 5.

Table 5. Summary Table of ANOVA for Achievement in Economics

Source of Variation	₩	Sum of Squares	Mean Squares	F-ratio	p-value	Signi- ficance	Results
Main Effects							
S-actualization	-	98.3247	98.3247	0.3989	>0.05	NS	H ₁₅ – Rejected
Self-esteem	-	1555.8447	1555.8447	6.3121	<0.01	Yes	H ₁₆ – Accepted
Self-alienation	_	66.7017	66.7017	0.2706	>0.05	NS	H ₁₇ – Rejected
2-way Interactions							
SA X SE (A X B)	-	9.8090	0608.6	0.0398	>0.05	NS	H ₁₈ – Rejected
SA X SAL (A X C)	_	94.0664	94.0664	0.3816	>0.05	NS	H ₁₉ – Rejected
SE X SAL (B X C)	_	827.8077	827.8077	3.3584	<0.05	Yes	H ₂₀ – Accepted
3-way Interactions							-
SA X SE X SAL		206.4904	206.4904	0.8377	>0.05	NS	H ₂₁ – Rejected
(A X B X C)							
Error	192	47325.6797	246.4879				
Total	199	50184.7244	3105.5326				
NS – Not Significant,		H – Hypothesis	sis				

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The data shows that the F values of 6.3121 (df=1, 192) for 'self-esteem' (H_{16})'; and 3.3584 (df=1, 192) for interaction between 'self-esteem' and 'self-alienation' (H_{20}) were significant at 0.01 and 0.05 levels respectively. Hence, hypotheses H_{16} and H_{20} were found tenable, thereby indicating that the significant variance in achievement in Economics was contributed by 'self-esteem' separately, and 'self-esteem' and 'self-alienation' in combination. The F values for 'self-actualization' (H_{15}) 'self-alienation' (H_{17}) and for interaction between these variables (H_{18} , H_{19} , and H_{21}) were not significant, thereby rejecting the underlying null assumptions.

Table 6. Scheffe's Multiple Comparison of Means for Achievement in Economics

SI. No.	Treatment	Corresponding Means	Simultaneous Confidence Interval	P-value	Significance
1	$b_1 c_2 X b_2 c_2$	61.1757– 52.3051	7.1439– 10.3681	< 0.05	Yes

 b_1 = High Self-esteem; b_2 = Low Self-esteem; c_1 = High Self-alienation; c_2 = Low Self-alienation;

- Note: 1. Higher mean score on Economics indicate higher achievement ability in Economics.
 - Comparison of other treatment groups on Economics was found to be not significant.

The analysis shown in Table 6 reveals that the mean score of high self-esteem and low self-alienation (61.1757) was greater than the mean score of low self-esteem and low self-alienation (52.3051). It implies that students' achievement in Economics was influenced by their high self-esteem.

Analysis of Data Pertaining to Sociology

The results of the analysis pertaining to hypotheses $\rm H_{22}$ to $\rm H_{28}$ for achievement in Sociology are presented in Table 7.

Table 7. Summary Table of ANOVA for Achievement in Sociology

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Source of Variation	ф	Sum of Squares	Sum of Squares Mean Squares	F-ratio	p-value	p-value Significance	Results
Main Effects							
S-actualization	_	829.3389	829.3389	3.9680	<0.05	Yes	H., – Accepted
Self-esteem	_	789.9779	789.9779	3.7796	<0.05	Yes	H - Accented
Self-alienation	_	86.9620	86.9620	0.4161		SN	H. – Rejected
2-way Interactions							24
SA X SE (A X B)	_	922.7467	922.7467	4.4149	<0.05	×	T Ctagood
SA X SAL (A X C)	_	274.4157	274.4157	1 3129	>0.05	SZ	H Pointed
SE X SAL (B X C)	_	98.1277	98.1277	0.4695	>0.05	2 Z	H Rejected
3-way Interactions						2	
SA X SE X SAL							
(AXBXC)	_	51.3274	51.3274	0.2456	>0.05	SZ	H Rejected
Error	192	40129.7930	209.0093				87
Total	199	43182.6893	3261.9057				
NS – Not Significant,		H - Hypothesis	S				

The data shows that the F values of 3.9680 (df=1, 192) for 'self-actualization' (H_{22}); 3.7796 (df=1, 192) for 'self-esteem' (H_{23}); and 4.4149 (df=1, 192) for interaction between these two variables (H_{25}) were significant at 0.05 level respectively. Hence, H_{22} , H_{23} , and H_{25} were found tenable, thereby indicating that significant variance in the achievement in Sociology was made by these two variables independently as well as through their interaction.

Table 8. Scheffe's Multiple Comparison of Means for Achievement in Sociology

SI. No.	Treatment	Corresponding Means	Simultaneous Confidence Interval	P-value	Significance
1	a ₁ b ₁ X a ₂ b ₂	65.8333 – 58.5948	8.0471 – 6.4118	< 0.05	Yes

 a_1 = High Self-actualization; a_2 = Low Self-actualization; b_1 = High Self-esteem; b_2 = Low Self-esteem;

Note: 1. Higher mean score on Sociology indicate higher achievement ability in Sociology

Comparison of other treatment groups on Sociology was found to be not significant.

The analysis shown in Table 8 reveals that the mean score of high self-actualization and high self-esteem (65.8333) was greater than the mean score of low self-actualization and low self-esteem (58.5948). It implies that high self-actualization together with high self-esteem influenced upon students' achievement in Sociology.

Analysis of Data Pertaining to Total Achievement

The results of the analysis pertaining to hypotheses H_{29} to H_{35} for total achievement are presented in Table 9.

Table 9. Summary Table of ANOVA for Total Achievement

					-			
	Source of Variation	df		Sum of Squares Mean Squares	F-ratio		p-value Significance	Results
	Main Effects		^					
	S-actualization	_	497.1349	497 1349	3 2619	70.02	>	\ - -
	Self-esteem	_	615 3874	415 3874	2 1004	0.07	Sel ;	П ₂₉ – Accepted
	Colf alianti	-	1 200.010	013.3074	3.1784	<0.05	Yes	H_{30} – Accepted
	Jeir-dilenation	-	199.4779	199.4779	1.0367	>0.05	SN	H Rejected
	2-way Interactions							3)
	SA X SF (A X R)	-	020 4070	000				
٠.		-	7.00.407.2	738.48/2	4.8//6	<0.05	Yes	H ₂₂ – Accepted
	SA X SAL (A X C)	1	703.4810	703.4810	3.6562	<0.05	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	75 J
	SE X SAL (B X C)	_	168.1430	168,1430	0.8739	70.05	2 2	133 — Accepied
<u></u>	3 wow lateration				\$0.50	0.00	2	⊓ ₃₄ – Kejected
_	J-way injeractions							
	SA X SE X SAL	_	0.7463	0.7463	0.000	>0.05	UZ	
	(AXBXC))	5	2	Π_{35} – Kejected
	Error	192	29262.2016	152 4073				
	Total	199	32385.0593	3275.2650				
Z	NS – Not Significant,		H – Hypothesis					

The data shows that F values 3.2619 (df=1, 192) for 'self-actualization' (H_{29}); 3.1984 (df=1, 192) for 'self-esteem' (H_{30}); 4.8776 (df=1, 192) for interaction between 'self-actualization' and 'self-esteem' (H_{32}); and 3.6562 (df=1, 192) for interaction between 'self-actualization' and 'self-alienation' (H_{33}) were significant at 0.05 level. Hence, H_{29} , H_{30} , H_{32} and H_{33} were found tenable, thereby indicating that the variables 'self-actualization' and 'self-esteem' have made independently the significant difference in the case of total achievement. Further, the variable 'self-actualization' with its interaction with 'self-esteem' as well as 'self-alienation' also made significant contribution to the total variance in the dependent variable.

Table 10. Scheffe's Multiple Comparison of Means for Total Achievement

SI. No.	Treatment	Corresponding Means	Simultaneous Confidence Interval	P-value	Significance
1	a ₁ b ₁ X a ₂ b ₂	60.0489 – 53.9833	7.1886 – 5.1080	< 0.05	Yes
2	a ₁ c ₁ X a ₂ c ₂	60.7867 – 55.8086	7.8897 – 2.0665	< 0.05	Yes

 a_1 = High Self-actualization; a_2 = Low Self-actualization; b_1 = High Self-esteem; b_2 = Low Self-esteem;

Note: 1. Higher mean score on total achievement indicate higher ability in academic achievement.

Comparison of other treatment groups on total achievement was found to be not significant.

The analysis shown in Table 10 reveals that the mean score of high self-actualization and high self-esteem (60.0489) was greater than the mean score of low self-actualization and low self-esteem (53.9833). It implies that in influencing on the total achievement students' high self-actualization and high self-esteem played a major role.

Further, the mean score of high self-actualization and high self-alienation (60.7867) was greater than the mean score of low self-actualization and low self-alienation (55.8086). It, further, implies that students' total academic achievement was influenced by their high self-actualization and high self-alienation than their low self-actualization and low self-alienation.

Educational Implications

Maslow (1968) depicted the humanistic conception of education that demands a change in direction rather than a mere improvement over our present educational practices. He characterizes educational practices derived from learning theory as grossly inadequate and inappropriate for today's students and society. He contends that such practices merely bring about superficial learning for students and that they do not begin to develop the "higher nature of man" which can be found in all persons. In Rogers' view, current educational practices from elementary to university levels are basically authoritative and coercive. Teachers are perceived as possessors of knowledge and students as its recipients, with lectures as the means of transmitting information from teacher to students. Rogers also believed that too much emphasis is placed on the acquisition of cognitive skills (the learning of facts and problemsolving skills) and not enough on the development of affective skills (learning how to be a sensitive and loving person). Educational settings are typically impersonal, with too much emphasis on performance and its evaluation through testing and grading. In his view, there is a need for more participation by students in the decisions that affect their academic and social development and a need for better communication and cooperation among faculty, students and administrators. Students should be able to choose their own goals and to pursue them with the help and encouragement of faculty (Rogers, 1970, p.154).

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