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A STUDY ON ACADEMIC ACHIEVEMENT AND PERSONALITY OF SECONDARY SCHOOL STUDENTS

Abstract: This study is concerned with the Academic Achievement and Personality of 300 students of secondary schools of Mandya city. The Raven's Standard Progress Matrices was used to obtain the Academic Scores and Eysenk Personality Inventory was used to collect data regarding their Personality. Result reflects that there is negligible positive relationship between Academic Achievement and Personality of Secondary School Students.

Introduction

The chief concern of education is to bring about reformation in all its sectors to achieve its goal. As a result of it, the whole education system is focusing its attention on measures to improve Academic Achievement of learners, techniques of emulating Personality Traits of students to shape their Personality , organizing Personality Development programs, Teacher Effectiveness, School Improvement Programs, Evaluation System, Feedback programs of various kinds,… etc.

Academic achievement refers to outcome/performance of education. Thus it indicates the extent to which a person has accomplished specific goals that were the focus of activities in instructional environments. As it includes multifaceted abilities of the learners it should be considered as the multifaceted construct that comprises different domains of learning. As a result of it, while defining academic achievement one is expected to observe the indicator used to measure it. Whatever may be the indicator used to measure academic achievement, the factors which have their influence on it are general intelligence, achievement motivation, recognition, interest, attitude, aptitude, Personality, etc of the person. Thus, individual's orientation towards academic achievement depends on various factors. One such factor is Personality.

The word Personality has originated from the Latin word 'Persona' which means 'like making sound', that is the voice of a character. The interpretation of the word Personality by the modern psychologists contradicts with the etymological meaning of Personality. It is now,

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understood as a condition of various organized human traits and group of related traits that form particular Personality Type (Eysenk, 1967).

Many psychologists defined Personality as follows: Hans J Eysenk (1971) defines it as "The more or less stable and enduring organization of person's character, temperament, intellect and physique which determine his unique adjustment to the environment". Allport summarises Personality as " a dynamic organization within the individual of those psycho-physical systems that determine his unique adjustment to his environment(1948,p-28)". These definitions confirm the fact that Personality is a quite complex concept. It includes everything about a person. Thus, it can't be just a collection of traits but a unique and dynamic structure.

It is well known fact that the performance of students depends on various physical and psychological factors. Particularly, secondary school students are passing through adolescent period, they are very much vulnerable to problems of various kinds. So their Academic Achievement and formation of Personality are affected to greater extent. Thus researcher considered these two variables in the present study.

Review of literature

Review of literature enables the researcher to have proper perspective in the topic of research. Actually it provides meaning to the research work and helpful to formulate the problem clearly to carry out the research activity systematically.

Kaia Laidra, Helle Pullmann, Juri Allik (2006) conducted a study on Personality and intelligence as predictors of academic achievement. General intelligence and personality traits from the 5 factor model was studied as predictors of academic achievement in a large sample of Estonian school children from elementary to secondary school. A total of 3618 students from all over Estonia attending grades 2, 3, 4, 6, 8, 10 and 12 participated in this study. Intelligence, as measured by Raven's Standard Progressive Matrices, was found to be best predictor of student's grade point average in all grades. Interactions between predictor variables and age accounted for only a small percentage of variance in GPA, suggesting that academic achievement relies basically on the same mechanisms through the school years.

Arthur E. Porpat (2010) This article reports a meta-analysis of personality-academic performance relationships, based on the Five-Factor Model (FFM), with cumulative sample sizes ranging to over 70,000. Most analyzed studies came from the tertiary level of education, but there were similar aggregate samples from secondary and tertiary education. There was a comparatively smaller sample derived from studies at primary level. Academic performance was found to significantly correlate with Agreeableness, Conscientiousness and Openness to Experience. Where tested, correlations between Conscientiousness and academic performance were largely independent of intelligence. When secondary academic performance was controlled for, Conscientiousness added as much to the prediction of tertiary academic performance as did intelligence. Strong evidence was found for moderators of correlations. Academic level (primary, secondary or tertiary), average age of participant, and the interaction between academic level and age significantly moderated correlations with academic performance. Possible explanations for these moderator effects are discussed and recommendations for future research are provided.

These reviews confirm the fact that there is need for research, so researcher considered Academic Achievement and personality as variables in the present study.

Objectives of the study

- To find the difference in academic achievement across the demographic variables.
- To find the difference in personality across the demographic variables.
- To examine the relationship between Academic Achievement and Personality.

Variables

Independent variable: Personality.
Dependent variable: Academic Achievement.
Demographic variables: Age, Gender, Language, Religion.

Hypothesis

Major hypothesis
Hypothesis 1: There is no significant difference in Academic Achievement across demographic variables.
Hypothesis 2: There is no significant difference in Personality across demographic variables.
Hypothesis 3: There is no relationship between Academic Achievement and Personality.

Minor hypothesis
Hypothesis 1A: There is no significant difference in Academic Achievement of secondary school students with respect to Age.
Hypothesis 1B: There is no significant difference in Academic Achievement of secondary school students with respect to Gender.
Hypothesis 1C: There is no significant difference in Academic Achievement of secondary school students with respect to Language.
Hypothesis 1D: There is no significant difference in Academic Achievement of secondary school students with respect to Religion.
Hypothesis 2A: There is no significant difference in Personality of secondary school students with respect to Age.
Hypothesis 2B: There is no significant difference in Personality of secondary school students with respect to Gender.
Hypothesis 2C: There is no significant difference in Personality of secondary school students with respect to Language.
Hypothesis 2D: There is no significant difference in Personality of secondary school students with respect to Religion.

Methodology

Descriptive survey method was used to collect data.

Sampling
Selection of sample

The sample for the study was obtained by using purposive sampling and consisted of 300 adolescents aged between 13 to 16. The Students of Secondary Schools were considered for

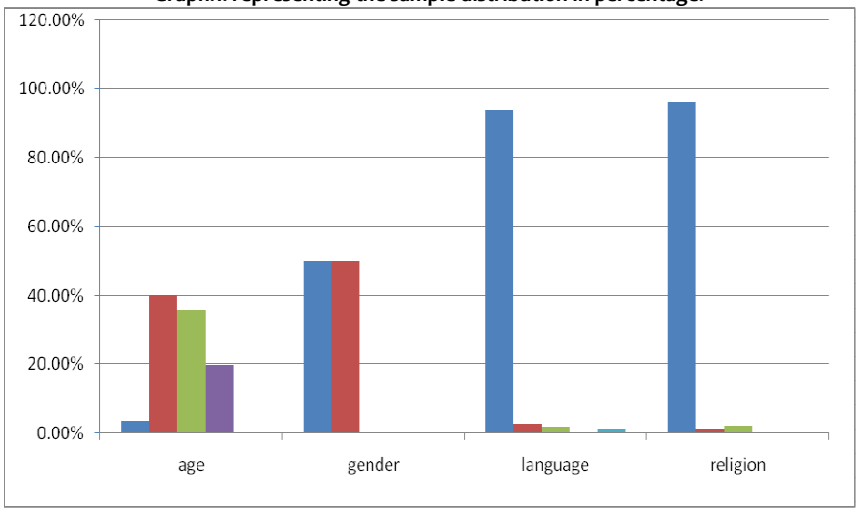
the study. Thus data was collected from Secondary Schools of Mandya city, Mandya district, Karnataka State, India.

Sample distribution

Table 1: Indicating Sample distribution across demographics.

Demographics	Dimensions	Count	Percent
Age	13 years	11	3.66%
	14 years	121	40.33%
	15 years	108	36.00%
	16 years	60	20.00%
Gender	Male	150	50.00%
	Female	150	50.00%
Language	Kannada	282	94.00%
	Urdu	8	2.70%
	Tamil	6	2.00%
	Telugu	1	0.30%
	Others	3	1.00%
Religion	Hindu	289	96.30%
	Christian	4	1.30%
	Muslims	7	2.30%

Graph:1: representing the sample distribution in percentage.



Tools of the study

- The Ravens Standard Progressive Matrices was used to assess the Academic Achievement scores of secondary school students.
- The Eysenk Personality Inventory was used to assess personality of secondary school students.

Statistical analysis

Descriptive Statistics

Table 2: Showing Descriptive statistics of academic achievement and personality.

	N	Minimum	Maximum	Mean	Std. Deviation
AA	300	20	295	191.44	44.237
EPI	300	15	64	31.00	4.885
Valid N (listwise)	300				

Interpretation: In the table: 02 the mean of Academic Achievement is 191.44 which indicate that the marks are high across secondary school students. The mean of Personality is 31.00 which indicate that the Personality score is low across secondary school students.

Inferential statistics

Hypothesis 1A: There is no significant difference in Academic Achievement of secondary school students with respect to Age.

Table 3: Indicating ANOVA table for differences across the Academic Achievement and Age.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	8468.466	4	2117.117	1.083	.365
Within Groups	576645.454	295	1954.730		
Total	585113.920	299			

Interpretation: One-way ANOVA was conducted to compare Academic Achievement scores across Age. The values of table:03: confirms the fact that there is significant difference in the Academic Achievement and Age [F = 1.083, p=0.365<.05].

Conclusion: The null hypothesis is rejected and the alternate hypothesis is accepted. It states that there is significant difference in the Academic Achievement and Age of secondary school students.

Hypothesis 1B: There is no significant difference in Academic Achievement of secondary school students with respect to Gender.

Table 4: Indicating the Mean, SD, t-value and significance value of Academic Achievement of Secondary school students across Gender.

GENDER	N	Mean	Std. Deviation	Df	t-value	Sig.
MALE	150	186.03	44.011	298	-2.129	.034
FEMALE	150	196.85	43.944			

Interpretation: An independent samples t-test was conducted to compare Gender and Academic Achievement. The values of table: 4: says that there is significant difference between the scores for Male (M=186.03, SD=44.011) and Female (M=196.85, SD=43.944); t

(298) = 2.129, p=0.0034 <.05. These results suggest that there is significant difference between Academic Achievement and Gender of Secondary school students.

Conclusion: The null hypothesis is rejected and the alternate hypothesis is accepted. It states that there is significant difference between Academic Achievement and Gender of Secondary school students.

Hypothesis 1C: There is no significant difference in Academic Achievement of secondary school students with respect to Language.

Table 5: Indicating ANOVA table for differences across the Academic Achievement and Language

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	4485.257	4	1121.314	.570	.685
Within Groups	580628.663	295	1968.233		
Total	585113.920	299			

Interpretation: One-way ANOVA was conducted to compare scores across Academic Achievement and Language. The values of table:05: indicates that there is no significant difference Academic Achievement and Language. [F = .570, p=0.685>.05].

Conclusion: The null hypothesis is accepted and the alternate hypothesis is rejected. Therefore, there is no significant difference in the Academic Achievement and Language of secondary school students.

Hypothesis 1D: There is no significant difference in Academic Achievement of secondary school students with respect to Religion.

Table 6: Indicating ANOVA table for differences across the Academic Achievement and Religion

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	9371.456	2	4685.728	2.417	.091
Within Groups	575742.464	297	1938.527		
Total	585113.920	299			

Interpretation: A one-way ANOVA was conducted to compare scores across Academic Achievement and Religion. From the table:06: it is found that there is no significant difference between Academic Achievement and Religion of secondary school students [F = 2.417, p=0.091>05].

Conclusion: The null hypothesis is accepted and the alternate hypothesis is rejected. Therefore, there is no significant difference between Academic Achievement and Religion of secondary school students.

Hypothesis 2A: There is no significant difference in Personality of secondary school students with respect to Age.

Table 7: Indicating ANOVA table for differences across the Personality and Age.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	233.581	4	58.395	2.496	.043
Within Groups	6901.415	295	23.395		
Total	7134.997	299			

Interpretation: One-way ANOVA was conducted to compare scores across Personality and Age. The values of the table :07: reflects the fact that there is significant difference between Personality and Age of the secondary school students [F =2.496, p=0.043<.05].

Conclusion: The null hypothesis is rejected and the alternate hypothesis is accepted. Therefore, there is a significant difference between Personality and Age of secondary school students.

Hypothesis 2B: There is no significant difference in Personality of secondary school students with respect to Gender.

Table 8: Indicating the Mean, SD, t-value and significance value of Personality of Secondary school students across Gender

	GENDER	N	Mean	Std. Deviation	Df	t-value	Sig.
EPI	MALE	150	29.53	4.151	298	-5.430	.000
	FEMALE	150	32.46	5.133			

Interpretation: An independent samples t-test was conducted to compare scores across Personality and Gender. Table :08: indicates that there is significant difference in the scores of Male (M=29.53, SD=4.151) and Female (M=32.46, SD=5.133); t (298) , p=0.000< .001. These results suggest that Gender difference is significant to Personality of Secondary school students.

Conclusion: The null hypothesis is rejected and the alternate hypothesis is accepted. It states that there is significant difference between Personality and Gender of secondary school students.

Hypothesis 2C: There is no significant difference in Personality of secondary school students with respect to Language.

Table 9: Indicating ANOVA table for differences across the Personality and Language.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	162.792	4	40.698	1.722	.145
Within Groups	6972.205	295	23.635		
Total	7134.997	299			

Interpretation: One-way ANOVA was conducted to compare scores across Personality and Language. From the table : 9 : we can interpret that significant difference is found between Personality and Language [F =1.722, p=0.145<0.05].

Conclusion: The null hypothesis is rejected and the alternate hypothesis is accepted. It states that, the significant difference is found between the Personality and Language of secondary school students.

Hypothesis 2D: There is no significant difference in Personality of secondary school students with respect to Religion.

Table 10: Indicating ANOVA table for differences across the Personality and Religion.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	75.662	2	37.831	1.592	.205
Within Groups	7059.335	297	23.769		
Total	7134.997	299			

Interpretation: One-way ANOVA was conducted to compare scores across Personality and Religion. The values of table : 10 : informs us that there is Significant difference between Personality and Religion [F = 1.592, p=0.205<0.05].

Conclusion: The null hypothesis is rejected and the alternate hypothesis is accepted. It states that, there is significant difference between Personality and Religion of secondary school students.

Hypothesis 3: There is no relationship between Academic Achievement and Personality.

Table 11: Indicating the Karl Pearson's correlation between the Academic Achievement and Personality

		MEANEPI
MEANAA	Pearson Correlation	.040
	Sig. (2-tailed)	.486
	N	300

Interpretation: Pearson's product-moment coefficient of correlation was used to compare and assess the relationship between the Academic Achievement and Personality of secondary school students. From the values of the table : 11 : we can interpret that Significant positive correlation is found between the two variables (r=.040, n=300, p>.05). So there is negligible positive correlation between Academic Achievement and Personality of secondary school students.

Conclusion: The null hypothesis is rejected and alternate hypothesis is accepted. It states that there is significant difference between Academic Achievement and Personality of secondary school students. Therefore, negligible positive correlation is found between Academic Achievement and Personality of secondary school students.

Findings of the study

- There is significant difference in Academic Achievement of Secondary School students with respect to Age.

- There is a significant difference in Academic Achievement of Secondary School students with respect to Gender.
- There is no significant difference in Academic Achievement of Secondary School students with respect to Language.
- There is no significant difference in Academic Achievement of Secondary School students with respect to Religion.
- There is a significant difference in Personality of Secondary School Students with respect to Age.
- There is a significant difference in Personality of Secondary School Students with respect to Gender.
- There is significant difference in Personality of Secondary School Students with respect to Language.
- There is significant difference in Personality of Secondary School Students with respect to Religion.
- There is negligible positive relationship between Academic Achievement and Personality of Secondary School Students.

Discussion and conclusion

In the present study researcher attempted to study the relationship between the Academic Achievement and Personality of Secondary School Students and tried to find the significant difference between the demographic variables-Age, Gender, Language and Religion. Descriptive survey method was used. Reven's Standard Progressive Matrices and Eysenk Personality Inventory were used to collect data from a sample of 300 secondary school students which is selected by adopting purposive sampling. Statistical analysis and interpretation was done by using descriptive statistics-mean and standard deviation and Inferential statistics- t-test, F-test, One way ANOVA and Pearson's product-moment coefficient of correlation.

Statistical analysis reflects the facts of the study as follows. There is negligible positive relationship between Academic Achievement and Personality of Secondary School Students. There is significant difference in scores across Academic Achievement and Age, Gender of Secondary School Students. There is no significant difference between Academic Achievement and Language, Religion of Secondary School Students. There is significant difference in scores across Personality and Age, Gender, Language and Religion of Secondary School Students.

Secondary School Students are more prone to problems due to many reasons. So they should be brought-up in appropriate atmosphere. Therefore, good and challenging tasks should be created to channelize their energy. This could be done both in educational setting as well as in social and family environments. From the study it is evident that Personality does influence Academic Achievement of adolescents to some extent. The factors such as Age, Gender, Language and Religion plays a significant role in shaping the Personality of the secondary school students. Thus it is very essential to emulate the Personality Traits to help learners to develop suitable Personality Type which in-turn boost up their Academic Achievement.

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Biographical note

Dr. Suvarna V.D. working as a lecturer in education in Shankara Gowda College of Education, Mandya. Karnataka State.India. Dr. Suvarna has completed Ph D in education in the year 2016 and has put in 23 years of experience as Teacher Educator. Dr. Suvarna has published two research articles in international journals and published many thematic articles in many journals as well presented papers in five national seminars and attended several state level seminars too.

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