

International Multidisciplinary  
Research Journal

*Indian Streams  
Research Journal*

Executive Editor  
Ashok Yakkaldevi

Editor-in-Chief  
H.N.Jagtap

---

## Welcome to ISRJ

RNI MAHMUL/2011/38595

ISSN No.2230-7850

Indian Streams Research Journal is a multidisciplinary research journal, published monthly in English, Hindi & Marathi Language. All research papers submitted to the journal will be double - blind peer reviewed referred by members of the editorial board. Readers will include investigator in universities, research institutes government and industry with research interest in the general subjects.

### International Advisory Board

Flávio de São Pedro Filho Federal University of Rondonia, Brazil	Mohammad Hailat Dept. of Mathematical Sciences, University of South Carolina Aiken	Hasan Baktir English Language and Literature Department, Kayseri
Kamani Perera Regional Center For Strategic Studies, Sri Lanka	Abdullah Sabbagh Engineering Studies, Sydney	Ghayoor Abbas Chotana Dept of Chemistry, Lahore University of Management Sciences[PK]
Janaki Sinnasamy Librarian, University of Malaya	Ecaterina Patrascu Spiru Haret University, Bucharest	Anna Maria Constantinovici AL. I. Cuza University, Romania
Romona Mihaila Spiru Haret University, Romania	Loredana Bosca Spiru Haret University, Romania	Ilie Pinteau, Spiru Haret University, Romania
Delia Serbescu Spiru Haret University, Bucharest, Romania	Fabricio Moraes de Almeida Federal University of Rondonia, Brazil	Xiaohua Yang PhD, USA
Anurag Misra DBS College, Kanpur	George - Calin SERITAN Faculty of Philosophy and Socio-Political Sciences Al. I. Cuza University, Iasi	.....More
Titus PopPhD, Partium Christian University, Oradea, Romania		

### Editorial Board

Pratap Vyamktrao Naikwade ASP College Devrukh, Ratnagiri, MS India	Iresh Swami Ex - VC. Solapur University, Solapur	Rajendra Shendge Director, B.C.U.D. Solapur University, Solapur
R. R. Patil Head Geology Department Solapur University, Solapur	N.S. Dhaygude Ex. Prin. Dayanand College, Solapur	R. R. Yalikal Director Management Institute, Solapur
Rama Bhosale Prin. and Jt. Director Higher Education, Panvel	Narendra Kadu Jt. Director Higher Education, Pune	Umesh Rajderkar Head Humanities & Social Science YCMOU, Nashik
Salve R. N. Department of Sociology, Shivaji University, Kolhapur	K. M. Bhandarkar Praful Patel College of Education, Gondia	S. R. Pandya Head Education Dept. Mumbai University, Mumbai
Govind P. Shinde Bharati Vidyapeeth School of Distance Education Center, Navi Mumbai	G. P. Patankar S. D. M. Degree College, Honavar, Karnataka	Alka Darshan Shrivastava Shaskiya Snatkottar Mahavidyalaya, Dhar
Chakane Sanjay Dnyaneshwar Arts, Science & Commerce College, Indapur, Pune	Maj. S. Bakhtiar Choudhary Director, Hyderabad AP India.	Rahul Shriram Sudke Devi Ahilya Vishwavidyalaya, Indore
Awadhesh Kumar Shirotriya Secretary, Play India Play, Meerut (U.P.)	S. Parvathi Devi Ph.D.-University of Allahabad	S.KANNAN Annamalai University, TN
	Sonal Singh, Vikram University, Ujjain	Satish Kumar Kalhotra Maulana Azad National Urdu University



## A CORRELATION OF CREATIVITY, INTELLIGENCE AND ACADEMIC ACHIEVEMENT OF 9<sup>th</sup> Std. STUDENTS - A STUDY



First Author Details :

**Sanjivani P. Kadam-Lugade**  
Assistant Professor.



Co - Author Details :

**Vijaykumar A. Gadagade<sup>2</sup> and P. B. Kadam-Lugade<sup>3</sup>**

<sup>2</sup>Senior lecturer , District Institute of Education and Training , Sangli.

<sup>3</sup>Professor in Mathematics, P V P I T ,Budhghoan College of Engineering,Tal:- Miraj,Dist:- Sangli.

### ABSTRACT

An intelligence and creativity are the major Psychological aspects of individual. Development of creative and intellectual ability is depending on how we give a chance to students to think in creative and intellectual ways. Some schools take special efforts to develop these inborn abilities and some schools does not take the efforts. So researchers decided to conduct a survey to find out, is there any difference in creativity and intelligence on the basis of gender & types of schools and the interactive affect of



these parameters on the achievement score of students? For this research, researchers took 60 students from Sangli city. After collecting and analyzing the data it was concluded that there is a significant difference between the mean scores of creativity of grantable and non grantable school students. There is no significant difference between the mean scores of intelligences as well as academic achievement with reference to gender and school types. There is no interaction effect of gender and school types on creativity. There is no interaction effect of gender and school types on intelligence. There is no interaction effect of gender and school types on academic achievement.

**KEYWORDS** : *intelligence and creativity , major Psychological , psychomotor domains .*

### INTRODUCTION :

Education is effective tool for development of nation. Teachers, student and society are the three main pillars of education process.. Of these three student and teachers are very important. In this process student's personality is developed. The all round development of student is main objective of education .The development of affective, cognitive and psychomotor domains are expected from education. The effectiveness of education depends on the effective and hardworking teachers and creative pupil.

Each and every animal has little bit of creativity. Doing something different than others is

creativity. Teacher's duty is to search the creative children from school and develop their creativity. Besides creativity, intelligence is the factor that makes effects on development of student.

### **Creativity**

Guilford has stated 150 different factors of intelligence of which divergent thinking is of most important and Guilford has called this particular factor as creativity. Guilford says, I believe that creativity and creative productivity extent well beyond the domain of intelligence, Creative thinking is also called as inductive thinking.

Calvin Taylor defined creativity as creativity is that process which results in a novel work that is accepted as tenable to useful or satisfying by a group at some point in time.

Creativity is the thinking process which works in divergent way. Creativity is not the slave of traditional thinking modes and does not work according to traditional way. Different factors of creativity are sensitivity of problem, fluency, originality, flexibility, synthesis and reconstruction.

### **Intelligence**

Man is animal who thinks. The very precious gift for man given by nature is thinking power. Man has been evolved from a primitive man to a very developed literate human being. Man has not only used this super power intelligence for his development, but also tried to study about the structure and features of intelligence. What is intelligence? And what are the deferent factors of intelligence? Are the questions which were tried to answer by the psychologist like Binet, Turman, and Bert etc. Many of them have tried to analyze intelligence.

According to Bert – The power of adjustment to relatively novel situation by organizing new Psycho-Physical combination is intelligence. Spearman has explained intelligence in two factor theory. One of it is general and another is specific. Thurston has explained seven factors of intelligence.

Guilford has explained the intelligence as there dimensional model. In this model there are 150 different factors of intelligence.

These two factors i.e. creativity and intelligence explained above may have effect on the educational achievement of pupil. So the research is necessary in that direction.

### **OBJECTIVES OF THE STUDY**

- 1) To find out the creativity of 9th std. students.
- 2) To find out the intelligence of 9th std. students.
- 3) To find out the educational achievement score of 9th std. students.
- 4) To study the relationship among creativity, Intelligence and educational achievement of 9th std students.
  - a. To study the co-relation between creativity and intelligence.
  - b. To study the co-relation between Intelligence and educational achievement.
  - c. To study the co-relation between creativity and educational achievement.
- 5) To compare the creativity, intelligence and achievement score 9th std. student according to the gender and type of schools.
- 6) To study the interaction effect of gender and type of schools on creativity, Intelligence and academic achievement.

### **NULL HYPOTHESIS**

- 1) There is no significant co-relation between the scores of creativity and intelligence of 9th standard

students.

- 2) There is no significant co-relation between the scores of intelligence and academic achievement.
- 3) There is no significant co-relation between the scores of creativity and academic achievement.
- 4) There is no significant difference between the mean scores of creativity, Intelligence and academic achievement with respect to gender and types of schools.

### METHODOLOGY

The present study is concerned about the comparison among creativity, intelligence and academic achievement of 9th standard students of Sangli city. So survey method is used for the present study.

### SAMPLING METHODS:-

Lottery method from simple random sampling is used to select 60 students (28 male and 32 female) from 3 secondary schools of Sangli city.

### TOOLS:-

- 1) Intelligence test, advanced progressive matrices by J.C. Raven (1958)
- 1) Passi test of creativity by – B. K. Passi.

### Statistical Techniques

#### Descriptive Statistics

Descriptive statistics such as mean and SD. were used to compare the scores of creativity, Intelligence and academic achievement, coefficient of correlation is used to find out the relationship among creativity, Intelligence and academic achievement.

#### Inferential Statistic

t- ratio were employed to study the significant of difference between mean scores of creativity and intelligences on the basis of gender and types of schools.

F- test was employed to study the significant effect of creativity, intelligence and their interaction on achievement.

### Analysis and Discussion

Table 1 Correlations

	Creativity	Academic achievement	I Q peracentile
Creativity	1	.298*	.106
Academic achievement	.298*	1	.540**
IQ. perecentile	.106	.540**	1

\* Indicate correlation is significant at 0.05 level (1-tailed)

\*\* Indicate correlation is significant at 0.01 level (1 – tailed)

**Table 1 shows that-**

- 1) There is significant co-relation between. creativity and academic achievement of students of 9th std in Sangli city
- 2) There is a significant co--relation between creativity and IQ percentile of students of 9th std in Sangli city.
- 3) There is a significant co-relation between academic achievement and IQ percentile of 9th std students in Sangli city.

**Table – 2 Comparison between male and female students on the basis of creativity, Academic achievement and IQ percentile.**

	Gender	N	Meal	Std Deviation	t
Creativity	Male	28	40.28	10.16478	0.39
	Female	32	39.31	9.14908	
Academic achievement	Male	28	65.95	10.4709	0.92
	Female	32	63.50	9.9576	
IQ percentile	Male	28	38.35	23.9648	0.60
	Female	32	42.31	26.6862	

**Table two shows that-**

- 1)There is no significant different between the means of creativity of male and female students.
- 2)There is no significant difference between the means of academic achievement of male and female students.
- 3)There is no significant difference between the means IQ percentile of male and female students.

**Table- 3 Comparison among creativity, academic achievement and IQ percentile on the basis of school type.**

	School Type	N	Mean	Std Deviation	t value
Creativity	Grantable	40	36.45	7.39	4.33
	Non grantable	20	46.40	10.12	
Academic achievement	Grantable	40	64.21	10.32	0.45
	Non Grantable	20	65.49	10.11	
IQ Percentile	Grantable	40	42.67	27.46	0.95
	Non Grantable	20	19.12	19.12	

**Table – 3 shows that:-**

- 1)There are no significant differences between the means of creativity of grantable and non grantable school students.
- 2)There is no significant difference between the means of academic achievement of grantable and non grantable school students.
- 3)There is no significant difference between the means of IQ percentile of grantable and non grantable school students.

**Table – 4 Dependent variable - creativity**

Source of variable	sum of squares	df	Mean squares	F	Remark
Gender	51.188	1	51.188	0.726	Not significant
School type	1277.339	1	1277.939	18.113	significant
Gender X school type	29.65	1	29.650	0.420	not significant
Error	3950.93	56	70.552		
Total	100282.00	60			

The above table shows that

- 1) There is no significant difference between the means of creativity of male and female students.
- 2) There is significant difference between the means of creativity of grantable and non grant able school students of 9th class.
- 3) There is no significant effect of interaction of gender and school types on creativity of students of 9th class.

**Table -5  
Dependent variable - Academic Achievement**

Source of variable	Sum of squares	df	means squares	F	Remark
Gender	93.94	1	93.94	0.878	Not significant
School types	38.86	1	38.86	0.363	not significant
gender x school type	.023	1	.023	.000	Not significant
Error	5994.10	56	107.03		
Total	2566861.07	60			

Table 5 shows that

- 1) There is no significant difference between the academic achievement of male and female students of 9th class.
- 2) There is no significant different between the means of academic achievement of grantable and non grantable school students.
- 3) There is no significant effect of interaction of gender and school type of academic achievement of students of 9th class.

**Table 6 Dependent Variable - IQ percentile**

Source of variable	Sum of square	df	Mean square	F	Remark
gender	401.7	1	401.7	0.611	not significant
School type	759.9	1	759.9	1.156	not significant
gender x school type	25.95	1	25.95	0.039	not significant
Error	36823.40	56	657.6		
Total	136070.0	60			

Table 6 Shows that

- 1) There is no significant difference between the means scores of IQ percentile of male and female students of 9th class.
- 2) There is no significant difference between the means scores of grantable and non grantable school students of 9th class.

3) There is no significant effect of interaction of gender and school type on IQ percentile of students of 9th class.

### EDUCATIONAL IMPLICATION

The creativity scores are helpful for understanding the level of creativity of student so the school management and teacher can plan the programs and implement it very effectively to develop the concern ability by doing some concrete work. In the same way intelligence score and also helpful for better development of intellectual ability of students and both these abilities may help to perform academic best.

### REFERENCES -

1. Best J.W. & Kahn, J. V (2009, Research in education (10 ed) New Delhi Prentice Hall of India.
2. Garrett, H. G. (2008) Statistics in Psychology and Education. Delhi – Surjeet publications.
3. Pandey R. S. (2008) Advanced Educational Psychology. Meerut : K Lal Book Depot.



**Vijaykumar A. Gadagade**

**Senior lecturer , District Institute of Education and Training , Sangli.**

# Publish Research Article

## International Level Multidisciplinary Research Journal

### For All Subjects

Dear Sir/Mam,

We invite unpublished Research Paper, Summary of Research Project, Theses, Books and Book Review for publication, you will be pleased to know that our journals are

## Associated and Indexed, India

- ★ International Scientific Journal Consortium
- ★ OPEN J-GATE

## Associated and Indexed, USA

- ✍ Google Scholar
- ✍ EBSCO
- ✍ DOAJ
- ✍ Index Copernicus
- ✍ Publication Index
- ✍ Academic Journal Database
- ✍ Contemporary Research Index
- ✍ Academic Paper Database
- ✍ Digital Journals Database
- ✍ Current Index to Scholarly Journals
- ✍ Elite Scientific Journal Archive
- ✍ Directory Of Academic Resources
- ✍ Scholar Journal Index
- ✍ Recent Science Index
- ✍ Scientific Resources Database
- ✍ Directory Of Research Journal Indexing

Indian Streams Research Journal  
258/34 Raviwar Peth Solapur-413005, Maharashtra  
Contact-9595359435  
E-Mail-ayisrj@yahoo.in/ayisrj2011@gmail.com  
Website : www.isrj.org