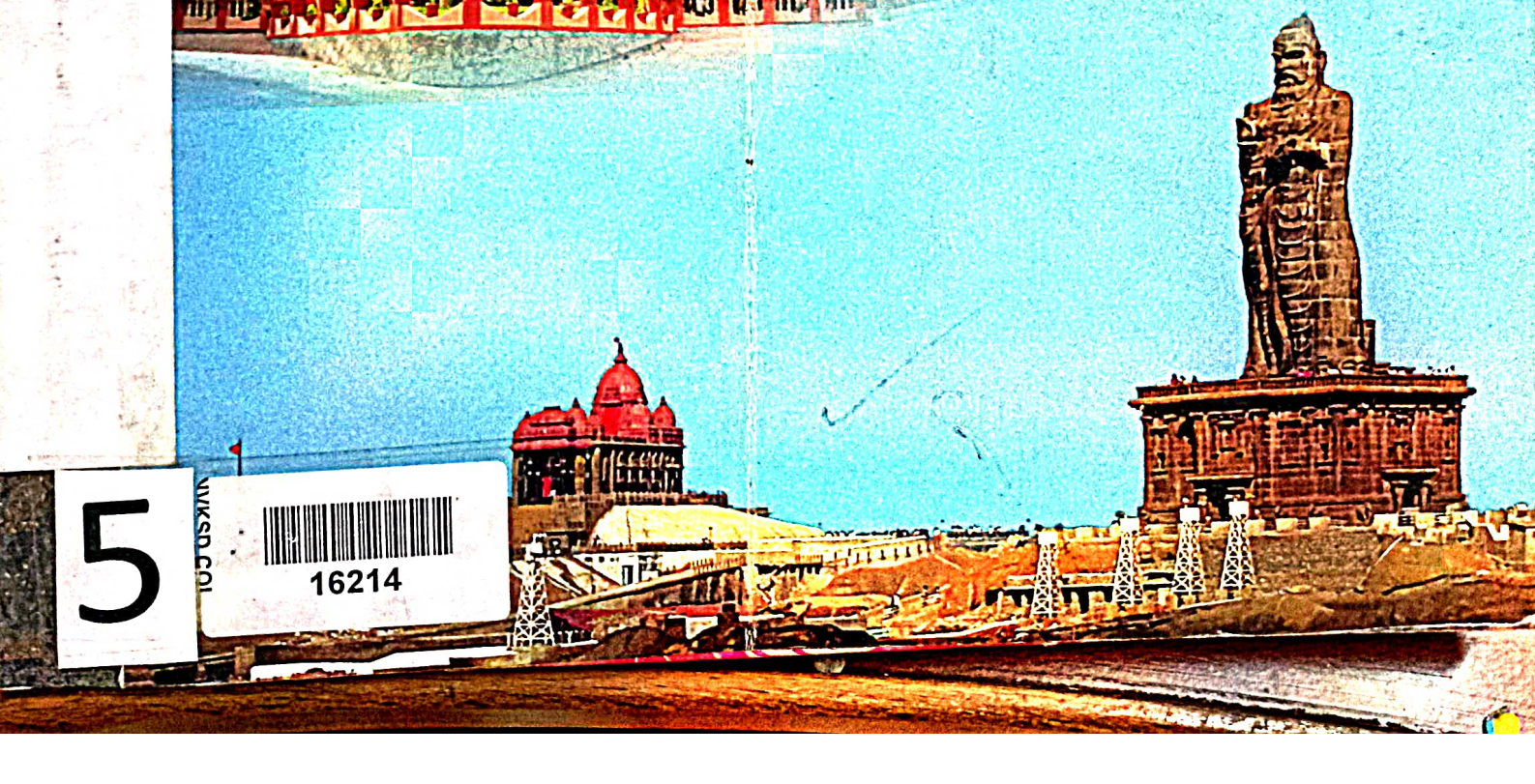
ISSN 2277-3576

ONTIERS IN EDUCATION AND RESEARCH

A Bi-Annual Journal

N.V.K.S.D.COLLEGE OF EDUCATION
ATTOOR

Vol 5 Issue 1
January 2016



FRONTIERS IN EDUCATION AND RESEARCH

A BI-ANNUAL RESEARCH JOURNAL OF N.V.K.S.D. COLLEGE OF EDUCATION

Volume 5, Issue 1, January 2016

N.V.K.S.D. College of Education
Re-accredited by NAAC with 'A' Grade
Attoor, Kanyakumari District, Tamil Nadu.
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negative affective disorders, loneliness, anxiety, depression, suicidal ideation, and somatic symptoms and externalizing issues like increased substance abuse.

The effects of cyberbullying are not limited to hurt feelings that can be easily disregarded. The consequences can be far reaching, and can permanently affect the behaviour of many adolescents. It can have equally negative long-term consequences for victims because malicious tags, cruel comments and unwanted picture, once uploaded, can never be completely erased from the web and run the danger of being resurrected any time. Because of these reasons, cyberbullying has shot to the forefront of agendas in schools and local communities due to the intangible harm that victims suffer. The parents and the educators cannot no longer ignore this cyber threat and have to join hands together to prepare the adolescents to face this threat.

Editor

CONTENTS

Influence of Multiple Intelligence and Learning Style on Academic Achievement of Undergraduates of Chemistry in Thoothukudi District 1-6
Gayathri. H

Impact of Direct Experience on Teaching Mathematics for Lower Secondary School Students 7-10
Augustin Bens Raj S. & Dr. Deepa H.

Moral Values Among Secondary School Students in Kerala 11-14
Dr. Rajeswari K

Attitude Towards Internet among Distance Education Learners 15-19
A.Joakim

A Study on Course Satisfaction of Student Teachers 20-23
S. Xavier Raj & Dr. A. Meenakshisundaram

Influence of Metacognition, Achievement in Science and Gender on Scientific Creativity of Secondary School Students 24-28
Revati N & Dr. Meera K. P

Influence of Massmedia in Developing Oral Communication Skill in English : A Study on Prospective Teachers 29-33
Emy Brindha T. & Manju M.S.

Effect of Yoga on Systolic Blood Pressure of Mentally Retarded Group 34-40
Dr .A. Ravi

Awareness of AIDS Among College Students 41-44
Prasad . P.S & Dr.Minikumari V. S.

Cloud Computing Based Curricular Transactional Process in Teacher Education 45-47
Dr. P. Swamy Dhas

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Influence of Multiple Intelligence and Learning Style on Academic Achievement of Undergraduates of Chemistry in Thoothukudi District

* Gayathri H.

ABSTRACT

The present study proposes the significance of multiple intelligence and diverse learning styles on academic achievement of undergraduate chemistry students. Using random sampling technique, 360 undergraduate chemistry students totally from 7 Colleges in Thoothukudi district were selected as sample for the study. Statistical techniques like t test, Chi-Square, ANOVA, POST ANOVA, Correlation and Regression were used for analysis of data. The findings of the study were; (i) there is no significant difference in the multiple intelligence and its dimensions (Verbal Linguistics, Logical Mathematical, Visual Spatial, Bodily Kinesthetic, Musical Rhythmic intelligence, Interpersonal, Intrapersonal, Naturalistic intelligence) of undergraduate chemistry students with respect to their gender. (ii) there is no significant difference in the Visual and Auditory learning style but significant difference exists in the Kinesthetic learning style of undergraduate chemistry students with respect to their gender. (iii) there is no significant difference in the Academic Achievement of undergraduate chemistry students with respect to their gender and (iv) there is significant influence of Multiple Intelligence and Learning Style on Academic Achievement of undergraduate chemistry students.

INTRODUCTION

"There is a brilliant child locked in every child" - Marva Collins.

Children in a classroom are of different types. To enable the student to realize his full potentiality, it is essential that, not only the linguistic and logical talents are satisfied but also the other spheres of Spatial, Bodily – kinesthetic, Inter and Intrapersonal, musical and naturalistic talents are also catered to.

"You can teach a student a lesson for a day; but if you can teach him to learn by creating curiosity, he will continue the learning process as long as he lives". Bedford

Teaching through the theory of Multiple Intelligences proposes a major transformation in the learning experience of students and provides students with opportunities for authentic learning based on students' needs, curiosity, interests and motivate students to be active learners. So the teaching style and learning style should be modified to meet the needs of our students. In this postmodern scenario, one should be aware of multiple intelligence and learning styles in order to make academic excellence.

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In the present scenario, only 2% of our manpower in the age group of 15-29 is formally skilled. However, statistics show that 90% of the employment opportunities require vocational skills which are not being imparted in our schools and colleges. India's transition to a knowledge-based economy requires a new generation of multi-skilled youth. To achieve this, the system must be attuned to the new global environment.

Howard Gardner's theory of Multiple Intelligence has fostered avenues of reform and change within our educational system. Based on Kothari Commission report, a great emphasis was given to Science in the school curriculum. Learning chemistry needs a deeper, more durable, more transferable thinking and learning styles.

There is a huge concern among the heads of the institutions, teachers and parents that the academic achievement is deteriorating nowadays. Therefore, finding the means and ways through which academic achievement could be increased is the need of the hour. Success has been measured by the yard stick, namely academic achievement. The present study attempts to find out the influence of multiple intelligence and learning style on academic achievement of undergraduate chemistry students.

OBJECTIVES

1. To find out whether there is any significant difference in the Multiple Intelligence and its dimensions of undergraduate chemistry students with respect to their gender.

2. To find out whether there is any significant difference in the learning style and its dimensions of undergraduate chemistry students with respect to their gender.

3. To find out whether there is any significant difference in the Academic Achievement of undergraduate chemistry students with respect to their gender.

...significant ...gence and Learning Style on Academic Achievement of undergraduate chemistry students.

HYPOTHESES

1. There is no significant difference in the Multiple Intelligence and its dimensions of undergraduate chemistry students with respect to their gender.

2. There is no significant difference in the learning style and its dimensions of undergraduate chemistry students with respect to their gender.

3. There is no significant difference in the Academic Achievement of undergraduate chemistry students with respect to their gender.

4. There is no significant influence of Multiple Intelligence and Learning Style on Academic Achievement of undergraduate chemistry students.

METHOD

The investigator adopted the survey method for conducting the study.

SAMPLE

The target population for the present study was undergraduate chemistry students studying in Thoothukudi district. Using random sampling technique, 360 undergraduate chemistry students from 7 Arts and Science Colleges in Thoothukudi district were selected for the present study.

TOOLS USED

The investigator has used the following tools

1. Multiple Intelligence Test (Gardener 1983).

2. The VAK Learning Style Inventory developed by Chislett and Chapman (2005).

STATISTICAL TECHNIQUES USED

In the present study, the investigator used Mean, Standard deviation, t test, ANOVA, Chi-square test, Product moment correlation, Multiple regression and Post ANOVA for analysis.

RESULTS AND DISCUSSION

Null Hypothesis : 1

There is no significant difference in the Multiple Intelligence and its dimensions of undergraduate chemistry students with respect to their Gender.

Table 1

Difference in the Multiple Intelligence of Undergraduate Chemistry Students with respect to their Gender

Multiple Intelligence and its Dimensions	Category				Calculated 't' value	Table Value	Remarks at 5% level
	Male (N =100)		Female (N =260)				
	Mean	SD	Mean	SD			
Verbal Linguistics intelligence	21.4600	21.0462	3.0868	3.2412	1.1235	1.96	N.S
Logical Mathematical Intelligence	22.8500	22.8846	3.3597	3.1675	0.0889		N.S
Visual spatial intelligence	21.9400	21.9654	3.0654	3.2856	0.0690		N.S
Bodily Kinesthetic intelligence	23.1400	22.4654	2.8179	3.7007	1.8563		N.S
Musical Rhythmic intelligence	19.1700	18.7923	4.1715	4.5093	0.7521		N.S
Interpersonal intelligence	19.8400	19.6308	1.4948	1.6415	1.1569		N.S
Intrapersonal intelligence	23.3200	23.2808	3.3283	3.6461	0.0975		N.S
Naturalistic intelligence	23.1500	23.6385	3.6807	3.5257	1.1409		N.S
Total	177.0400	175.6577	16.5450	18.4020	0.6877		N.S

It is inferred from the above table that the calculated t value is lesser than the table value at 5% level of significance. Therefore the null hypothesis is accepted. It shows that there is no significant difference in the multiple intelligence and its dimensions (Verbal Linguistics, Logical Mathematical, Visual Spatial, Bodily Kinesthetic, Musical Rhythmic intelligence, Interpersonal, Intrapersonal, Naturalistic intelligence) of Undergraduate Chemistry Students with respect to their gender.

Null Hypothesis : 2

There is no significant difference in the Learning Style and its dimensions of undergraduate chemistry students with respect to their gender.

Table 2

Difference in the Learning Style of Undergraduate Chemistry Students with respect to their Gender

Learning style and its Dimensions	Category				Calculated 't' value	Table Value	Remarks at 5% level
	Male (N =100)		Female (N =260)				
	Mean	SD	Mean	SD			
Visual	9.4900	10.1385	3.9560	3.7370	1.4143	1.96	N S
Auditory	10.5000	10.9615	3.0083	3.4282	1.2529		N S
Kinesthetic	10.0400	8.8654	3.6522	3.8692	2.6880		S

(i) It is inferred from the above table that the calculated t value 1.4143 and 1.2529 are less than the table value at 5% level of significance. Therefore the null hypothesis is accepted. It shows that there is no significant difference between male and female students in their Visual and Auditory learning style.

(ii) It is inferred from the above table that the calculated t value 2.6880 is greater than the table value at 5% level of significance. Therefore the null hypothesis is rejected. It shows that there is significant difference between male and female students in their Kinesthetic learning style.

Null Hypothesis: 3

There is no significant difference in the Academic Achievement of undergraduate chemistry students with respect to their gender.

Table 3

Difference in the Academic Achievement of Undergraduate Chemistry Students with respect to their Gender

Variable	Category				Calculated 't' value	Table Value	Remarks at 5% level
	Male (N =100)		Female (N =260)				
	Mean	SD	Mean	SD			
Academic Achievement	70.8300	71.4885	9.3242	11.8657	0.5543	1.96	N.S

It is inferred from the above that the calculated t value is less than the table value at 5% level of significance. Therefore the null hypothesis is accepted. It shows that there is no significant difference in the Academic Achievement of undergraduate chemistry students with respect to their gender.

Null Hypothesis: 4

There is no significant influence of Multiple Intelligence and Learning Style on Academic Achievement of undergraduate chemistry students.

Table 4

Influence of Multiple Intelligence and Learning Style on Academic Achievement of Undergraduate Chemistry Students

Variable	Karl Pearson Product Moment Correlation					Calculated R value (R^2 value)	Calculated 'F' value	Table Value	Remarks
	Multiple Intelligence	Visual learning style	Auditory learning style	Kinesthetic learning style	Academic Achievement				
Multiple Intelligence	1.000	-.168	0.024	.129	.656	0.658	67.657	5.63	S
Visual learning style	-.168	1.000	-.414	-.612	-0.073				
Auditory learning style	0.024	-.414	1.000	-.416	0.009				
Kinesthetic learning style	.129	-.612	-.416	1.000	0.046				
Academic Achievement	.656	-0.073	0.009	0.046	1.000				

Table - 5

Regression ANOVA

Learning style and its Dimensions	Category				Calculated 't' value	Table Value	Remarks at 5% level
	Male (N =100)		Female (N =260)				
	Mean	SD	Mean	SD			
Visual	9.4900	10.1385	3.9560	3.7370	1.4143	1.96	N.S
Auditory	10.5000	10.9615	3.0083	3.4282	1.2529		N.S
Kinesthetic	10.0400	8.8654	3.6522	3.8692	2.6880		S

From table 4, it is seen that the calculated value 67.657 is greater than the table value. From the table, it is observed that the obtained F-value (67.657) is significant at 0.05 level with 4,355 df. Hence it is interpreted that, this model with a small regression sum of squares (19609.44) in comparison to the residual sum of squares (25722.95) indicates that the model accounts for most of variation in the dependent variable Academic Achievement by the influence of the independent variables Multiple Intelligence and Learning Styles.

So, the null hypothesis is rejected. Thus, there is a significant influence of Multiple Intelligence and Learning Styles on Academic Achievement of undergraduate chemistry students.

FINDINGS

1. There is no significant difference in the multiple intelligence and its dimensions (Verbal Linguistics, Logical Mathematical, Visual Spatial, Bodily Kinesthetic, Musical Rhythmic intelligence, Interpersonal, Intrapersonal, Naturalistic intelligence) of undergraduate chemistry students with respect to their gender.

2. There is no significant difference in the Visual and Auditory learning style but significant difference exists in the Kinesthetic learning style of undergraduate chemistry students with respect to their gender.

3. There is no significant difference in the Academic Achievement of undergraduate chemistry students with respect to their gender.

4. There is significant influence of Multiple Intelligence and Learning Style on Academic Achievement of undergraduate chemistry students.

Difference in the Learning Style of Undergraduate Chemistry Students with respect to their Gender

Learning style and its Dimensions	Category				Calculated 't' value	Table Value	Remarks at 5% level
	Male (N =100)		Female (N =260)				
	Mean	SD	Mean	SD			
Visual	9.4900	10.1385	3.9560	3.7370	1.4143	1.96	N.S
Auditory	10.5000	10.9615	3.0083	3.4282	1.2529		N.S
Kinesthetic	10.0400	8.8654	3.6522	3.8692	2.6880		S

(i) It is inferred from the above table that the calculated t value 1.4143 and 1.2529 are less than the table value at 5% level of significance. Therefore the null hypothesis is accepted. It shows that there is no significant difference between male and female students in their Visual and Auditory learning style.

(ii) It is inferred from the above table that the calculated t value 2.6880 is greater than the table value at 5% level of significance. Therefore the null hypothesis is rejected. It shows that there is significant difference between male and female students in their Kinesthetic learning style.

Null Hypothesis: 3

There is no significant difference in the Academic Achievement of undergraduate chemistry students with respect to their gender.

Table 3

Difference in the Academic Achievement of Undergraduate Chemistry Students with respect to their Gender

Variable	Category				Calculated 't' value	Table Value	Remarks at 5% level
	Male (N =100)		Female (N =260)				
	Mean	SD	Mean	SD			
Academic Achievement	70.8300	71.4885	9.3242	11.8657	0.5543	1.96	N.S

It is inferred from the above that the calculated t value is less than the table value at 5% level of significance. Therefore the null hypothesis is accepted. It shows that there is no significant difference in the Academic Achievement of undergraduate chemistry students with respect to their gender.

Null Hypothesis: 4

There is no significant influence of Multiple Intelligence and Learning Style on Academic Achievement of undergraduate chemistry students.

Table 4

Influence of Multiple Intelligence and Learning Style on Academic Achievement of Undergraduate Chemistry Students

Variable	Karl Pearson Product Moment Correlation					Calculated R value (R^2 value)	Calculated 'F' value	Table Value	Remarks
	Multiple Intelligence	Visual learning style	Auditory learning style	Kinesthetic learning style	Academic Achievement				
Multiple Intelligence	1.000	-.168	0.024	.129	.656	0.658	67.657	5.63	S
Visual learning style	-.168	1.000	-.414	-.612	-0.073				
Auditory learning style	0.024	-.414	1.000	-.416	0.009				
Kinesthetic learning style	.129	-.612	-.416	1.000	0.046				
Academic Achievement	.656	-0.073	0.009	0.046	1.000				

Table - 5

Regression ANOVA

Learning style and its Dimensions	Category				Calculated 't' value	Table Value	Remarks at 5% level
	Male (N =100)		Female (N =260)				
	Mean	SD	Mean	SD			
Visual	9.4900	10.1385	3.9560	3.7370	1.4143	1.96	N.S
Auditory	10.5000	10.9615	3.0083	3.4282	1.2529		N.S
Kinesthetic	10.0400	8.8654	3.6522	3.8692	2.6880		S

From table 4, it is seen that the calculated value 67.657 is greater than the table value. From the table, it is observed that the obtained F-value (67.657) is significant at 0.05 level with 4,355 df. Hence it is interpreted that, this model with a small regression sum of squares (19609.44) in comparison to the residual sum of squares (25722.95) indicates that the model accounts for most of variation in the dependent variable Academic Achievement by the influence of the independent variables Multiple Intelligence and Learning Styles.

So, the null hypothesis is rejected. Thus, there is a significant influence of Multiple Intelligence and Learning Styles on Academic Achievement of undergraduate chemistry students.

FINDINGS

1. There is no significant difference in the multiple intelligence and its dimensions (Verbal Linguistics, Logical Mathematical, Visual Spatial, Bodily Kinesthetic, Musical Rhythmic intelligence, Interpersonal, Intrapersonal, Naturalistic intelligence) of undergraduate chemistry students with respect to their gender.

2. There is no significant difference in the Visual and Auditory learning style but significant difference exists in the Kinesthetic learning style of undergraduate chemistry students with respect to their gender.

3. There is no significant difference in the Academic Achievement of undergraduate chemistry students with respect to their gender.

4. There is significant influence of Multiple Intelligence and Learning Style on Academic Achievement of undergraduate chemistry students.

CONCLUSION

This study strongly reveals the correlation among the variables Multiple Intelligence, Learning style and Academic Achievement of undergraduate chemistry students. Modern society needs active, responsible citizens, which requires individuals to think and assimilate information from multiple sources and make judgements. Hence every student should be given opportunities in school especially in all science classes to enhance his her Multiple Intelligence to understand core knowledge in the subject, thinking skills and suitable learning styles. Therefore, every teacher should teach his lesson in consonance with the intellectual abilities of all kinds of children and their relevant learning style in the classroom. The findings underscore the need of multiple intelligence and learning style for proper understanding of facts and concepts of the subject. The present classroom based research urges ...ing in the light of current thinking about teaching and learning science and to integrate multiple intelligence and learning styles in chemistry classes.

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Impact of Direct Experience on Teaching Mathematics for Lower Secondary School Students

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ABSTRACT

Mathematics is the science which deals with the quantitative aspects of our life and knowledge. To make students understand the mathematical concepts, many strategies are employed. One among them is direct experience method which focuses on learning by doing. Students are benefitted by this method since it helps them to develop the observing power or skill with attentiveness and concentration. The present study analyses the impact of direct experience on teaching Mathematics for lower secondary school students. The investigator adopted experimental method for conducting the study. The sample consisted of 50 lower secondary school students. The study revealed that direct experience is effective in teaching Mathematics for lower secondary school students. The findings show that there is significant difference between the control and experimental group of lower secondary students in their achievement in Mathematics in the post test and in gain scores. The other major findings are discussed.

INTRODUCTION

According to Dale's research, the least effective method at the top involves learning from information presented through verbal symbols, i.e., listening to spoken words. Direct experience refers to built-in opportunities for active engagement in a learning environment which decisively shape individual understanding. When students have little or misconstrued knowledge of a certain topic, direct experience is required to gain the understanding and create change or refine a mental model. These views are not always accurate, but may be shaped by past experiences and may be difficult to break out even when they are demonstrably false.

Direct experience or experiential learning is considered as an effective educational method. It engages the learner at a more personal level by addressing the needs and wants of the individual. Experiential learning requires qualities such as self-initiative and self-evaluation. For experiential learning to be truly effective, it should employ the whole learning wheel, from goal setting to experimenting and observing, to reviewing, and finally action planning. This complete process allows one to learn new skills, new attitudes or even entirely new ways of thinking. Experiential learning is about creating an experience where learning can be facilitated. The key lies in the facilitator and how he or she facilitates the learning process.

NEED AND SIGNIFICANCE OF THE STUDY

Mathematics is the science of number and space. It is the accepted science which deals with the quantitative aspects of our life and knowledge. It provides opportunity for the intellectual gymnastics of the man's inherent powers. Nowadays we are living in a scientific world which partly or mostly depends upon Mathematics. But many students

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do not like Mathematics because they do not understand it. So they feel it as a difficult subject and they get tensed in learning mathematics. The first reason for this is that the teaching method does not completely reach the students in an effective way. A common problem is that many try to memorize the mathematical concepts.

To make students understand the mathematical concepts easily, many strategies are employed. One among them is direct experience method. It focus on learning by doing. Students are benefitted by this method since it helps the students to develop the observing power with attentiveness and concentration. This also helps the students to improve their memory power and interest in learning Mathematics. Experiential learning takes place in a learning environment, filled with fun with plenty of laughter and respect for the learner's abilities. It is vital that the individuals are encouraged to directly involve themselves in the experience so that they gain better understanding of the new knowledge and retain the information for a longer time. Creating an experiential learning environment can be challenging for educators who usually follow traditional classroom techniques. Identifying activities that allow learners to understand and absorb concepts can be a new and daunting experience. By providing direct experience in addition to standard written and visual materials, learners with different types of learning styles and strengths can be accommodated. So this method is considered as more powerful and effective. Hence the investigator has taken this study to know the impact of direct experience on the achievement in Mathematics.

OBJECTIVES OF THE STUDY

1. To study whether there is any significant difference in the post-test scores of control and experimental group in their achievement in Mathematics.

2. To study whether there is any significant difference in the gain scores of control and experimental group in their achievement in Mathematics.

HYPOTHESES

1. There is no significant difference in the post-test achievement scores of the control and experimental group.

2. There is no significant difference in the gain scores of the control and experimental group.

METHOD

Experimental method was adopted for conducting the study. The experimenter had chosen the pre-test post-test equivalent group design for experimentation.

TOOL USED

Achievement Test in Mathematics developed and validated by the investigator.

SAMPLE

The investigator selected V.K.P. Higher Secondary School, Colachel in Kanyakumari District for conducting the experiment. The sample consisted of fifty students from Standard VIII of both experimental and control group. Cattel's culture fair intelligence test was administered to the sample. Based on their intelligence test scores, they were equally divided into control and experimental group.

STATISTICAL TECHNIQUES USED

The statistical techniques employed were arithmetic mean, standard deviation and t test.

RESULTS AND DISCUSSION

To find out the impact of direct experience on teaching Mathematics, the achievement scores of Experimental and control group of lower secondary level students were analyzed. The details of the analysis are given below.

Hypothesis : 1

There is no significant difference in the post-test achievement scores of control and experimental group

Table 1

Difference in the Post-test Scores of the Control and Experimental Group

Group(N=25)	Mean	S.D	t value		Remarks at 5% level of Significance
			Calculated Value	Table value	
Control	18.96	5.08	3.53	2.07	Significant
Experimental	23.92	3.84			

It is inferred from the above table that the calculated t value 3.53 is greater than the table value 2.07 for df 48, at 0.05 level of significance. Hence the null hypothesis is rejected. It shows that there is significant difference in the post-test achievement scores of the control and experimental group.

Hypothesis : 2

There is no significant difference in the gain scores of control and experimental group.

Table 2

Difference in the Gain Scores of the Control and Experimental Group

Group(N=25)	Mean	S.D	t value		Remarks at 5% level of Significance
			Calculated Value	Table value	
Control	6.32	2.46	1.87	2.07	Not Significant
Experimental	8.88	2.45			

It is inferred from the above table that the calculated t value (1.87) is less than the table value (2.07) for df, 48 at 0.05 level of significance. Hence the null hypothesis is accepted. It shows there is no significant difference in the gain scores of the control and experimental group.

FINDINGS

1. There is significant difference in the post-test achievement scores of the control and experimental group.

2. There is no significant difference in the gain scores of the control and experimental group.

CONCLUSION

The findings of the study revealed that mean scores of the experimental group are higher than the control group in the post test. This may be due to the influence of direct experience method of teaching.

The direct experience method to teach concrete objects. Sometimes, students are exposed to direct experience with an object to develop their creative thinking. The government can conduct workshops, conferences, in-service training etc for teachers on 'direct experience method'. This will make the teachers to be informative and thus they implement this method and help the students to realise that learning of mathematics is fun and joy. The direct experience method can be included in D.T.Ed and B.Ed curriculum so that the prospective teachers may learn the benefits of this method. As they are the future teachers, they may apply direct experience method in their classrooms.

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Moral Values Among Secondary School Students in Kerala

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ABSTRACT

Moral values are the standards of good and evil, which govern an individual's behaviour and choices. In the context of growing violence, terrorism and corruption, value education acquires prime importance. The thrust of education should be on the all-round development of a student with sound moral values.The present study investigates the moral values among secondary school students in Kerala. The study was conducted on a sample of 1000 students studying in standard VIII and IX from the schools of Thiruvananthapuram, Alappuzha, Pathanamthitta , Ernakulam, Thrissur, Kozhikodu and Kannur. Normative survey method was adopted for the present study.The study revealed that the secondary school students have moderate level of moral values such as unconditional love and kindness, honesty, hard work, respect for others, co-operation, compassion and forgiveness.

INTRODUCTION

Our country is undergoing rapid changes in all walks of life. So the students who are the future citizens have to be trained to respond to and adjust well with social changes satisfactorily by equipping themselves with desirable skills and values. Modern India is committed to the guiding principles of socialism, secularism, democracy, national integration and international brotherhood. So these guiding principles should be emphasized in the educational system and suitable values are to be cultivated among the students for promoting equality, social justice, national cohesion and democratic citizenship. With these objectives in view, radical reforms are to be introduced in the curriculum and all efforts must be taken for developing well integrated personalities in our nation.

Today education has become just a nine letter word as a superior term in the dictionary. Moreover, education system has become a business where it is treated like any other profession. No one is a born as a criminal or a spoilt person. It is the environment that is deviating the child away from taking the right path. Good teachers can bring positive changes with good education imparted to the students. Education is an integration of literacy and moral values. Students are considered as pillars of a nation. Everyone has to prepare individually in the present for their future. They have to be mentally, physically, morally and emotionally fit for the betterment of the society. It will be a great achievement if every person can establish himself or herself as a worthy person.

Education aims at all-round development of a person. Therefore social, ethical and moral values should be included in our school's programme. Physical Education, sports and some other extracurricular activities should also be incorporated in our school curriculum. We should always try to understand the rich culture and heritage of our country. We can be called as "Educated" only when we are cultured. Only well educated people can build a good society and a healthy nation. We can remove the present evils of our society by constantly helping each other. Then our country will become a dream land and a dream destination.

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(1964-1966) puts forth the views, the ... of social and moral values in the younger generation is creating many serious social and ethical conflicts. Value oriented education becomes the need of the hour because of the morality crisis that exists in our society. It is generally observed that the moral values of the society is declining day by day and the beliefs and attitudes of the younger generation is changing drastically .This may make a student behave in a tantrum and aggressive manner. This can result in the sprouting up of an educated terrorist. So, it is high time to reshape the attitude of the youth on whose shoulders the future of a nation rests. Although value education is a burning issue in the present educational system, due importance is not provided to it. Moral values are the standards of good and evil, which govern an individual's behaviour and choices. In the context of growing violence, terrorism, corruption and nepotism, value education acquires prime importance. The thrust of education should be on the allround development of a student with sound moral values. The present investigation has been undertaken to study the moral values among secondary school students in Kerala.

OBJECTIVES OF THE STUDY

The major objectives of the study were:

... in Kerala ... values

2. To find out the level of moral values ... secondary school students in Kerala with resp... to the various dimensions of moral values

HYPOTHESIS

There exists moderate level of moral val... among secondary school students.

METHOD ADOPTED

'Normative survey' method was adopte... for the present study.

SAMPLE

The study was based on a representati... sample of 1000 students who were studying in VI... and IX standard (N=1000) in Thiruvananthapuram, Alappuzha, Pathanamthitta, Ernakulam, Thrissur, Kozhikodu and Kannur Districts.

TOOLS

The tools used by the investigator for t... present study were Moral Value Inventory prepare... and validated by the investigator and Soc... Economic Status Scale prepared and standardise... by Rajeswari and Anitha Thomas.

STATISTICAL TECHNIQUE USED

Percentage Analysis

RESULTS AND DISCUSSION

LEVEL OF MORAL VALUES OF SECONDARY SCHOOL STUDENTS

Table 1

Level of Moral Values of Secondary School Students

Moral values	Number of Students	Percent
High group	100	10%
Average group	840	84%
Low group	60	6%
Total	1000	100

It is evident from the study that only 10 percent of secondary school students under study hav... high level of moral values and majority of the students (84%) have average level of moral values

LEVEL OF DIFFERENT DIMENSIONS OF MORAL VALUES OF SECONDARY SCHOOL STUDENTS

The top seven moral values selected were Unconditional Love and Kindness, Honesty, Hard Work, Respect for Others, Co-operation, Compassion and Forgiveness. The level of select moral values of secondary school students is shown in table 2

Table 2

Level of Different Dimensions of Moral Values of Secondary School Students

Dimensions	High group		Average group		Low group	
	N	%	N	%	N	%
Unconditional Love and Kindness	114	11.4	696	69.6	190	19
Honesty	180	18	670	67	150	15
Hard Work	110	11	714	71.4	176	17.6
Respect for Others	140	14	658	65.8	202	20.2
Co-operation	86	8.6	682	68.2	232	23.20
Compassion	88	8.8	634	63.4	278	27.80
Forgiveness	82	8.2	616	61.6	302	30.20

Majority of secondary school students under study have moderate level of moral value on different dimensions such as Unconditional Love and Kindness(69.6%), Honesty(67%), Hard Work(71.4%), Respect for Others(65.8%), Co-operation(68.2%), Compassion(63.4%) and Forgiveness(61.6%)

It is also clear from the table that some students have high level of moral value on different dimensions such as Unconditional Love and Kindness(11.4%), Honesty(18%), Hard Work(11%), Respect for Others(14%), Co-operation(8.6%), Compassion(8.8%) and Forgiveness(8.2%)

More number of secondary school students possess low level of moral value on different dimensions such as Unconditional Love and Kindness (19%), Honesty(15%), Hard Work(17.6%), Respect for Others(20.2%), Co-operation(23.20%), Compassion(27.80%) and Forgiveness(30.20%).

MAJOR FINDINGS OF THE STUDY

The following are the major findings of the study:

1. Majority of the secondary school students (84%) have average level of moral values, 10 percent of secondary school students under study have high level of moral values and only 6% have low level of moral values.

2. Majority of secondary school students under study have moderate level of moral value on different dimensions such as Unconditional Love and Kindness(69.6%), Honesty(67%), Hard Work(71.4%), Respect for Others(65.8%), Co-operation(68.2%), Compassion(63.4%) and Forgiveness(61.6%)

3. Considerable number of secondary school students possess low level of moral value on different dimensions such as Unconditional Love and Kindness (19%), Honesty(15%), Hard Work(17.6%), Respect for Others(20.2%), Co-operation(23.20%), Compassion(27.80%) and Forgiveness(30.20%).

CONCLUSIONS

1. Based on the findings of the study, it can be concluded that the majority of secondary school students have moral values such as unconditional love and kindness, honesty, hard work, respect for others, co-operation, compassion and forgiveness to a moderate level and a considerable number of students possess low level of moral values such as respect for others, cooperation, compassion and forgiveness.

2. Values are regarded desirable, important and held in high esteem by a particular society in which a person lives. The teachers should stress the values while transacting the content to students. The teachers should make deliberate attempts to make the students identify the values present in the content. Orientation of teachers is, no doubt, the need of the hour. Seminars, workshops, refresher courses etc. may be conducted specifically for this purpose.

3. Some of the values can be developed in the students through organization of various extra-curricular activities such as social service, joint celebration of religious festivals in the school, exchange of greetings on such occasion, and visits to religious places of different communities.

4. Teachers must play an important role in inculcating values among secondary school students. The most important aspect is that they should set good examples of conduct and behaviour, which the students may imbibe.

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Attitude Towards Internet among Distance Education Learners

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ABSTRACT

The internet is an inseparable part of today's educational system. Distance education depends on the internet for educational purposes. Today majority of universities provide internet service to students, teachers, and researchers. The present investigation is an attempt to study the gender differences, if any, in the attitude towards internet of distance education learners. Normative survey method was used in the present investigation. The sample for the study comprised of 500 distance education learners drawn from different universities in Tamilnadu using random sampling technique. A scale on Attitude towards Internet constructed and standardized by the investigator was used to collect data. The scale included 58 items in the four dimensions of Attitude towards Internet namely, Attitude towards information gathering internet, Attitude towards acquiring knowledge and skill through internet, Attitude towards learning environment and Attitude towards anxiety. Reliability of the tool was established using Test- Retest method (0.87). The findings of the study revealed that distance education learners possessed high level of attitude towards internet and its dimensions. Genderwise significant differences were noted in the attitude towards internet of distance education learners.

INTRODUCTION

The internet is a network of hundreds and thousands of computers all over the world connected in a way that lets other computers access information from them. So if a computer is connected to the internet, in principle, it can be connected to any other computer on the network. Today, the internet comprises more than 45,000 regional, national and international networks, which connect more than 30 million people in over 200 countries. The networks include organizations, schools, universities, companies, governments, groups and individuals. The internet can be used as a supplement to traditional instructional methods. To complement a lecture, instructors may ask students to find specific websites to gain more in-depth knowledge about a particular topic. An instructor may also ask students to search the internet for information on services offered in a particular location. In preparation for a class topic such as diversity, students may be asked to search the internet to learn about different ethnic groups or population at risk.

The internet is a useful tool for all in a technologically sophisticated world and it is widely used in education. The use of internet for education is very important. It is now being used to teach in schools and colleges to get more out of it (Usun, 2003). The internet is one of the least costly approaches to provide interconnection. Furthermore, through the internet, the distance learning community can access hundreds of libraries and databases. It is very convenient and the educational materials can be stored on a website. Students and instructors also have a written record of what everyone in the class says during the discussion. There is a greater potential for sharing

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information through the internet than through other modes of transmitting and receiving information.

NEED AND SIGNIFICANCE OF THE STUDY

Attitude towards internet is defined as the feelings, thoughts and experiences regarding internet activities. As regards its educational use, the learners' feelings, thoughts and perceptions towards the object are quite significant. Attitudes have been shown to be an important predictor of usage and implementation of technology (Rodgers and Chen, 2002). Levin (2003) stated internet as a new technology that holds the greater promise humanity has known for learning and universal access to quality education. It allows learners to broaden their academic experience, access important information and communicate to others within academic community. A number of courses are being developed in which part of the course or the entire courseware offered via the internet. The instructor may place course notes on web pages, may create a video recording of a live lecture for viewing on the internet, or use combinations of these ideas. For instance, Wilkinson, Harries and Thelwall (2003) reported that most of the links between universities' home pages were associated with information on research or education. Hence, education today no longer begins and ends within the four walls of schools and universities. The distance classroom is a normal classroom that connects to the internet. Mitra and Steffensmeir (2000) state that easy internet access encourages positive attitudes towards computers. When the fact that internet has already begun to be used in learning environments so frequently is taken into consideration, it is possible that students' negative attitudes towards this technology may be generalized for schools, and thus there could be increase in loss of learning. The distance education programmes conduct educational activities through internet and in their future lives as well. This study aims to find out whether the distance education learners' attitude towards internet differ in terms of gender.

OBJECTIVES

1. To study the level of attitude towards internet and its dimensions of Distance Education Learners

2. To study the genderwise significant differences if any, in the mean scores of attitude towards internet and its dimensions of Distance Education Learners

HYPOTHESIS

There is gender wise significant difference in the mean scores of attitude towards internet and its dimensions of Distance Education Learners

METHOD

Normative survey method was employed for conducting the study.

SAMPLE

The sample for the study comprised of 500 distance education learners drawn from different universities in Tamil Nadu using random sampling technique.

TOOL

The tool used in the present study was Attitude towards Internet Scale (ATIS) constructed by the investigator. Attitude Towards Internet Scale included 58 items in the four dimensions of Attitude Towards Internet namely, Attitude towards information gathering internet, attitude towards acquiring knowledge and skill through internet, Attitude towards learning environment and Attitude towards anxiety. Reliability of the tool was established using Test- Retest method (0.87).

STATISTICAL TECHNIQUES USED

Arithmetic Mean, Standard Deviation and t test were used to analyse the data.

RESULTS AND DISCUSSION

Table 1

Different levels of Attitude towards Internet and its Dimensions of Distance Education Learners

Domain	Levels	Count	Percentage
Attitude Towards Information Gathering Internet	Low	115	23.0
	Moderate	121	24.2
	High	264	52.8
Attitude Towards Acquiring Knowledge and skill through Internet	Low	101	20.2
	Moderate	121	24.2
	High	278	55.6
Attitude Towards Learning Environment	Low	104	20.8
	Moderate	115	23.0
	High	281	56.2
Attitude Towards Internet Anxiety	Low	111	22.2
	Moderate	119	23.8
	High	270	54.0
Attitude Towards Internet Total	Low	107	21.4
	Moderate	111	22.2
	High	282	56.4

From the above table it is clear that nearly 60 % of Distance Education learners possess high level of attitude towards internet (56.4% high,21.4% low and 22.2% moderate).Nearly 50 % of Distance Education learners possess high level in all dimensions of attitude towards internet. This result is in agreement with the results of Hunjara and Safwan (2010), which indicated that majority of Distance Education learners have high level of attitude towards internet.

Table 2

Gender wise Comparison of Attitude towards Internet of Distance Education Learners

Variable	Gender	Mean	SD	N	t value	P value
Attitude towards internet	Male	216.09	27.66	500	2.12*	0.006
	Female	211.00	28.49	500		

*indicates significant at 0.05 level

It is inferred from the table 2, that the calculated t value (t-2.12; p<0.006) is significant at 0.05 level. It indicated that gender wise significant differences existed in the attitude towards internet of Distance Education learners. Mean values showed that male learners possess high attitude towards internet compared to female learners. This result is in agreement with the results of Nachmias, Mioduser & Shemla (2000) which indicated that male students possess more attitude towards internet than female students.

Table 3

Genderwise Comparison in the Dimensions of Attitude towards Internet of Distance Education Learners

Dimensions of attitude towards internet	Gender	Mean	SD	N	t	p
Attitude Towards Information Gathering Internet	Male	32.45	5.03	250	1.88	0.06
	Female	32.33	5.01	250		
Attitude Towards Acquiring Knowledge and skill through Internet	Male	62.40	9.05	250	1.20	0.0266
	Female	62.20	8.82	250		
Attitude Towards Learning Environment	Male	49.65	9.34	250	2.88*	0.001
	Female	47.41	9.26	250		
Attitude Towards Internet Anxiety	Male	71.47	10.16	250	1.44	0.015
	Female	71.01	9.86	250		

*indicates significant at 0.05 level

The above results indicated that there existed significant difference between male and female distance education learners in their attitude towards learning environment (t=2.88, p <0.05) .It showed that mean scores of attitude towards learning environment was significantly high among male as compared to female learners. No significant difference was noted between male and female distance education learners in their Attitude towards information gathering internet, attitude towards acquiring knowledge and skill through internet and Attitude towards anxiety. Thus it can be concluded that the overall attitude towards internet and its dimensions is significantly high among male as compared to female distance education learners.

CONCLUSION

The study revealed that majority of Distance Education learners had high level of attitude towards internet and its dimensions. It is further found that the overall attitude towards internet and its dimensions is significantly high among male as compared to female distance education learners. The fact that internet is utilized so much in daily life makes it more significant to know the users' attitude towards it. The positive attitudes towards internet contribute to the increase in the success of learning activities. It is especially essential to create a positive attitude towards internet in female learners.

The universities should be clear as to "why" they are encouraging students to use the internet. To achieve success in educational applications of internet, they should take students' attitudes and views into consideration. All universities should provide internet for education and should offer feasible, efficient, effective and interactive on-line degree and certificate programs. Universities should organize courses that require use of the internet. The courses organized by Universities' should highlight the use of internet search techniques. Course materials should be given on the web to facilitate access by students. Academic cooperation should be promoted through the sharing of educational resources among different universities in Tamil Nadu. To enhance academic cooperation between all universities in Tamil Nadu communication between various points of the network should be computer mediated. Short term workshops should be organised to the Distance Education learners to make them aware about the possiblities of internet in supplementing their studies.

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A Study on Course Satisfaction of Student Teachers

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ABSTRACT

In this study, the investigator made an attempt to find out the course satisfaction of student teachers in Kanyakumari district. The objectives of the study were, to find out the level of course satisfaction of student teachers and to find whether there is any significant difference in course satisfaction of student teachers with respect to their Gender, Subject, Educational Qualification and Marital Status. Survey method was adopted for the present study. The population for the present study consisted of student teachers studying in Colleges of Education in Kanyakumari district. Using simple random sampling technique, the investigator selected a sample of 510 student teachers. The findings revealed that majority of the student teachers seem to have average level of course satisfaction. It was also found that significant difference existed between male and female student teachers in their course satisfaction. It was also found that their existed no significant difference between graduate and post graduate qualified student teachers, student teachers of arts and science subjects and married and unmarried student teachers in their course satisfaction.

INTRODUCTION

Satisfaction is a word which is very much spoken in academic and non-academic set ups. In non-academic setup even in the goods that we purchase, food that we take, cloth that we wear, place of our stay and everywhere satisfaction is ... need that the human being expects. In acade... setup, we call it as job satisfaction or cou... satisfaction. For teachers and administrators, ... apt requirement is job satisfaction. At the same ti... in case of students, it is the course satisfaction wh... makes the difference in augmenting the achieveme... It is very vital to assess whether the colleges ... universities are fulfilling the mission of the institutio... Along with the curriculum, study environment, ... of teachers, etc. are few other factors that enhan... course satisfaction among the students. The outco... of course satisfaction is also very vital. One w... possesses effective satisfaction will be putting mu... effort in his/her study attributes. One who is ... possessing course satisfaction cannot reveal his ... potentiality and cannot succeed in his attempt.

NEED AND SIGNIFICANCE OF TH... STUDY

Today, all teachers especially teac... educators are facing the ongoing challenge to m... their students to satisfy with the course of stu... Teacher educators must develop their skills to m... students' educational needs so that they can ens... course satisfaction. Till the academic year 20... 15, the duration of the B. Ed. programme was ... year. The students have to experience more str... as they have to complete lot of practical activi... and record works too. The challenge of teachin... to help students to develop the needed skills ...

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competence. The professional knowledge and skills of the teacher educators contribute much for the course satisfaction of student teachers. The success of a student in a course purely depends upon his/her course satisfaction. So the investigator decided to conduct a study on course satisfaction of student teachers.

OBJECTIVES

1. To find out the level of course satisfaction of student teachers.

2. To find whether there is any significant difference in the course satisfaction of student teachers with respect to their a) Gender, b) Subject, c) Educational Qualification and d) Marital Status.

HYPOTHESES

1. The level of course satisfaction of student teachers is average.

2. There is no significant difference in the course satisfaction of student teachers with respect to their a) Gender, b) Subject, c) Educational Qualification and d) Marital Status.

METHOD

Survey method was used by the investigator for the present study.

SAMPLE

Using simple random sampling technique the investigator selected 510 student teachers from various colleges of Education in Kanyakumari District.

TOOLS

For the present study, the investigator used XaMe's Course Satisfaction Scale (XMCSS, 2015).

STATISTICAL TECHNIQUES

For analyzing the data, statistical techniques such as percentage, mean, standard deviation, and t test were used.

RESULTS AND DISCUSSION

Table 1

Level of Course Satisfaction of Student Teachers

Variable	Low		Average		High	
	N	%	N	%	N	%
Course Satisfaction	109	21.4	287	56.3	114	22.4

From table.1 it is seen that majority of student teachers have average level of course satisfaction

Table 2.a

Difference between Male and Female Student Teachers in their Course Satisfaction

Variable	Gender	N	Mean	S.D	Calculated 't' Value	Remarks
Course Satisfaction	Male	57	116.58	19.47	6.24	S.
	Female	453	133.92	21.97		

(At 5% level of significance the table value of 't' is 1.96)

Difference between ... Satisfaction

Variable	Subject	N	Mean	S.D	Calculated 't' Value	Remarks
Course Satisfaction	Arts	279	132.13	22.07	0.16	N. S.
	Science	231	131.81	22.76		

(At 5% level of significance the table value of 't' is 1.9

Table 2.c

Difference between UG and PG Group Student Teachers in their Course Satisfaction

Variable	Qualification	N	Mean	S.D	Calculated 't' Value	Remarks
Course Satisfaction	U. G.	449	132.62	22.28	1.74	N. S.
	P. G.	61	127.25	22.55		

(At 5% level of significance the table value of 't' is 1.9

Table 2.d

Difference between Married and Unmarried Student Teachers in their Course Satisfaction

Variable	Marital Status	N	Mean	S.D	Calculated 't' Value	Remarks
Course Satisfaction	Married	76	131.99	21.91	0.00	N. S.
	Unmarried	434	131.98	22.47		

(At 5% level of significance the table value of 't' is 1.9

The 't' test revealed that there is significant difference between male and female student teachers in their course satisfaction. The reason for this may be that female student teachers are more sincere in their studies. Also they spend more time to study and do the related activities, which give more satisfaction related to their course of study.

There is no significant difference between graduate and post graduate qualified student teachers, student teachers of Arts and Science subjects and married and unmarried student teachers in their course satisfaction.

CONCLUSION

From this study it was found that majority of the student teachers have only average level of course satisfaction. Based on the findings, the investigator has given the following recommendations for the various sectors of tea education in order to enhance a better cou satisfaction among student teachers.

It is essential to establish a proper associa between the teacher education institutions a practice teaching schools, so that the stud teachers can enjoy their course with plenty satisfaction.

A healthy institutional climate should maintained within the campus. It will help to deve a positive attitude among the student teach towards the institution and thus they will hav tendency to adjust with the institutional environm and also exhibit a better course satisfaction.

Guest lectures and career guida programmes can be conducted so that the stud teachers can realize the dignity of teaching profess and it will help to develop a positive attitude towards teaching profession and thus enhance the course satisfaction.

Democratic and participatory way of teaching should be practised by the teacher educators, so that the student teachers can enjoy the course.

Teachers should possess more committed and pragmatic approach in order to promote comprehensive acquisition of adjustment and promote course satisfaction among the student teachers.

The student teachers should realize the importance of teaching profession.

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Influence of Metacognition, Achievement in Science and Gender on Scientific Creativity of Secondary School Students

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ABSTRACT

The aim of the present research is to investigate the relationship of Metacognition, Achievement in science, Gender and their interaction on scientific creativity of secondary school students. Survey method was used. The sample comprised of 158 students of classes IX and X studying in schools affiliated to Central Board of Secondary Education in Kottayam district of Kerala. Standardized tools used to measure the variables were Majumdar Scientific Creativity Test by Majumdar (1982) and Group Embedded Figures Test by Witkin, Oltman, Ruskin and Karp. Marks of students from school records were taken as a measure of their achievement in Science. The data was analyzed using ANOVA. Scientific creativity was found to be significantly influenced by achievement in Science and gender. Scientific creativity was found to be independent of Metacognition. Scientific creativity of secondary school students were found to be independent of interaction between Metacognition and Achievement in Science and between Metacognition and Gender.

INTRODUCTION:

Scientific creativity is the ability to find and solve new problems and the ability to formulate hypotheses; it usually involves some addition to our prior knowledge, whereas artistic creativity may give some new representation of life or feelings (Liang, 2002). According to Torrance, central features creativity are fluency, flexibility and originality and Adey, 2002). Mukhopadhayay (20 considered fluency, flexibility and originality important components of scientific creativity.

Metacognition refers to higher order think which involves active control over the cogniti processes engaged in learning. Activities such planning how to approach a given learning ta monitoring comprehension, and evaluating progr toward the completion of a task are metacogniti in nature. Because metacognition plays a critical r in successful learning, it is important to stu metacognitive activity and development to determ how students can be taught better to apply th cognitive resources through metacognitive cont (e.g., Borkowski, Carr, & Pressley, 19 Sternberg, 1984, 1986a, 1986b). Metacogniti refers to higher order thinking which involves act control over the cognitive processes engaged learning. Metacognition enables students to ben from instruction (Carr, Kurtz, Schneider, Turner Borkowski, 1989; Van Zile-Tamsen, 1996) a influences the use and maintenance of cogniti strategies. While there are several approaches metacognitive instruction, the most effective o involves providing the learner with both knowled of cognitive processes and strategies, a experience or practice in using both cognitive a metacognitive strategies and evaluating the outcomes of their efforts .Simply providing knowledge without experience or vice versa does not seem to be sufficient for the development of metacognitive control (Livingston, 1996).

In the Standards for test construction (APA, 1999) achievement is viewed basically as the competence a person has in an area of content. This competence is the result of many intellectual and nonintellectual variables. In addition, Tang (1986) suggested that broad knowledge may enhance scientific creativity. Tang emphasized that a broad background in several scientific fields may increase the creative powers of scientists because it will allow them to make novel connections (quoted by Liang, 2002). Science achievement and content knowledge is a considerable factor when describing scientific creativity. In scientific creative activity, it is very considerable to understand the role of knowledge in students' scientific creativity.

NEED AND SIGNIFICANCE OF THE STUDY

Knowledge of science and creative vision have become two important quality parameters in the contemporary society which is highly technical, as well as complex. In this context, fostering creativity in Science education is also becoming more and more important. As a consequence, investigation of creativity in Science education, to be called precisely as scientific creativity is also receiving increasing attention of science educators. Creativity in science education thus has emerged as an independent field of research. Howe (2004) pointed out that scientific creativity is more than having fun and coming up with wacky ideas or doing one's own thing. Heller (2007) defined the hypothetical construct scientific ability as scientific thinking potential or as a special talent for excellence in sciences. Similar to this definition, "scientific creativity" or "technical creativity" can be conceptualized as individual and social capacities for solving complex scientific and technical problems in an innovative and productive way. Usually students do not get an opportunity to use their creative ability. Their ability is often confused with achievement in a particular subject. Most schools force rote learning by which students do not get an awareness of their own learning i.e., how they are learning and what they are learning. When learning becomes meaningful, it awakens their creative talents. Achievement and metacognition are two important aspects of learning. National development and scientific creativity of its citizens are directly related. So it is the need of the hour to find out creative talents of the children. Therefore the investigator made an attempt to study the influence of metacognition, achievement in Science and gender on scientific creativity of secondary school students.

Scientific creativity and diversity are crucial for the future of our educational system. A fair amount of research has been carried out to study the correlation between scientific creativity with variables like Metacognition, Achievement in Science and Gender. But the available studies on the subject are not enough to substantiate the influence of these variables on scientific creativity of secondary school students. The absence of a concrete research design to quantify these correlations made it imperative to bridge the existing gaps by undertaking the present study.

METHOD

Normative survey method was used for the present study.

SAMPLE

The sample consisted of 158 students of class IX and X from schools affliated to central board of secondary education in Kottayam District. Cluster random sampling technique was used to select the sampling.

TOOLS

In the present study, data was collected by administering the following tests.

1. Majumdar Scientific Creativity Test by Majumdar (1982).

2. Group Embedded Figures Test by Witkin, Oltman, Ruskin & Krap (1971).

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manual were followed. Since no [illegible] grouping in GEFT according to Indian standards was available, the groups were assigned at two levels namely below and above calculated mean value of 12 obtained from present observations. Those above mean were categorized as field independent and those below mean as field dependent.

Scores of students in Science subject were obtained from respective schools. Scores were then

above formula. Scores were grouped at [illegible] done on the ba[illegible] mainly High, Intermediate and Low. Scores by range of 40-75 were grouped as Intermed[illegible] Scores below 40 were clubbed under low level scores above 75 as high.

STATISTICAL TECHNIQUES USED

Data was analyzed objective wise by u[illegible] ANOVA.

RESULTS AND DISCUSSION

Table 1

Summary for 2x3 Factorial Designs for Influence of Metacognition, Achievement in Scie and Their Interaction on Scientific Creativity of Secondary School Students

Source of Variance	Sum of Squares	df	Mean Squares	f Value
Cognitive Style (A)	292	1	292	0.637
Achievement in science (B)	91124.25	2	45562.12	99.36**
AxB	611.82	2	305.911	0.67
Errors	69698.55	152	458.54	
Corrected Total	170259.27			

**Significant at 0.01 le[illegible]

Table 2

Summary for 2x2 Factorial Design for Influence of Metacognition, Gender and Their Interaction on Scientific Creativity of Secondary School Students

Source of Variance	Sum of Squares	df	Mean Squares	F Value
Cognitive Style (A)	3377.78	1	3377.78	3.45
Gender (B)	12983.30	1	12983.30	13.250**
AxB	58.72	1	58.72	0.06
Error	150898.95	154	979.86	
Corrected Total	170259.27			

**Significant at 0.01 lev[illegible]

In present investigation, Scientific creativity of secondary school students was found to be independent of Metacognition. The results are cognizant with findings of Bhawalkar (1992), Singh (2001), Singh (1987) and Sharma (1981) who reported that degree of independency did not influence creativity significantly. Katra (1993) also contested that in urban samples total scientific creativity was not significantly related with metacognition.

Scientific creativity of secondary school students was found not to be independent of Achievement in Science in the present study. Significant correlations between scientific creativity and academic achievement have also been cited by Dubey (1994), Rajnish (1998) and Ndeke and Okerel (2012). Correlations between scientific achievement and scientific creativity were also reported as insignificant by Jaiswal (2008) and Bhawalkar (1992). However, in present research, Scientific Creativity of secondary school students was found to be independent of interaction between Metacognition and Achievement in Science.

Sansanwal, Sharma and Deepika (1993) established that students' sex has no influence on scientific creativity whereas studies by Hunashal (2012), Ndeke and Okerel (2012), Kwatra (2000) revealed that scientific creativity is gender dependent. Shukla (1982) also attributed more creativity to males. This is in consonance with the present study where Scientific Creativity of secondary school students was found not to be independent of Gender. However, Scientific Creativity of secondary school students was found to be independent of interaction between Metacognition and Gender.

Teachers should not force rote learning; instead they should teach students how to learn.If a teacher uses varied experiences like problem based activities, open ended questions, hands-on experiences etc in a science class, it will have a direct impact on their reflective thinking which will awaken their creative talents. The future of our nation lies in the hands of little children in class rooms. Knowledge base that is content and context sensitive has to be effectively constructed with the help of the facilitator. Teacher should try to use an experimental approach and engage the learner effectively. Designing experiments and improvisations should be encouraged among students. There are no shortcuts to creative learning in science. The overall approach should provide enough flexibility to provide for a variety of learning and personality styles. A wide range of instructional methods such as discussion, questioning, individualized instruction, group investigation, simulation role play, or inquiry can be used. Students' learning needs should be taken into account with regard to their level of development and academic performance. Scientific creativity measures are influenced by gender differences. Metacognition varies across learners. Future research may dig out the causes of these differences and consolidate instructional measures to promote sound knowledge base.

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Influence of Massmedia in Developing Oral Communication Skill in English : A Study on Prospective Teachers

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ABSTRACT

This study attempted to find the perception of prospective teachers on the influence of mass media in developing oral communication skill in English. A sample of 400 prospective teachers from Kanyakumari district was taken using simple random sampling technique. The tool used was Mass Media Perception Inventory prepared by the investigators. The data were analyzed by using t test. The major finding shows that there is no significant difference in the perception of male and female prospective teachers on the influence of mass media in developing oral communication skill in English. There is a significant difference in the perception of rural and urban prospective teachers on the influence of mass media in developing oral communication skill in English.

INTRODUCTION

Today English has become an important part in learning. This involves both productive skills and receptive skills. Knowing English involves not only producing language correctly, but also using language for particular purpose. When learners are able to perform the communicative functions that they need, they achieve communicative competence in English language. In order to be fluent in English, we need to have a command over the target language. The major aim of teaching English is to express orally on the vocabulary usage in the context on everyday matters of life, and this requires proficiency in structural skills.

Language is a means of communication. Human beings are different from other animals since the former have developed a very complicated system to communicate with one another. The term 'language' applies to a system of conventional signals, which are used for communication by the members of a community.

The medium of speech is more important and basic because speech comes first in the life of a child. It is often used as the medium of communication. Written form of the language is inadequate and may mislead representation of the spoken language. It is also emphasized that language normally involves speech, a meaningful sequence of sound patterns that has significance both for speaking and listening.

NEED AND SIGNIFICANCE OF THE STUDY

There is a close relationship between the quality of education and the quality of teachers. The teacher is the effective and dominating factor among the ones contributing to educational improvement. He supports students in their own constructive thinking, allows them to transcend their cognitive limitations. It is possible to bring the process of learning beyond the boundaries of classroom

One of the most popular words in the 20th century is "communication". This has a great influence in the language teaching across the world. Over recent decades there has been a growing tendency on the part of the academicians to promote higher communication efficiency among students and teachers to face the challenges of the teaching/ learning process because learning cannot occur without communication, which is the essence of learning. Communication is a process of sharing experience and it places people in a shared situation that leads to acquisition of knowledge. Communication plays a very crucial role not only in classroom processes but also in effective work performance. Throughout the world, educational reforms in the global scenario focus on various issues including standards, quality and teacher preparation. The essence of the teaching/ learning process is communication. Teachers are responsible for helping their students to improve their communication skills. (Bellingham, John, 2002).

The development in communication technologies has had tremendous impact on higher education, which is fast becoming an international enterprise constantly entering uncharted areas. Conventionally, the transfer of information has been through the media of letters, books, telephone, radio, video, television and computers. These have now been integrated at the electronic frontier to give information highways (rather super highways) that facilitate rapid transfer of information on a global scale. Educational technology has immense potentialities for augmenting educational facilities and improving the qualities of education, particularly at the higher stage. It includes the Internet, various modern and traditional media, radio, television, video recorder, audio recorder, films, printing materials, graphics etc.

Mass media are carriers of information; empty channels and raw tapes, films, and paper. The basic complex problem is to select the most appropriate modes of communication for learning strategies and put these into combinations. The selection of media involves the matching of the characteristics of the media to the demands of the instructional situation – the characteristics of the instructor, the content, the student and the environment.

Mass media have a major role in enhancing the communication skills of individuals. Public communication becomes mass communication when it is transmitted to many people through print or electronic media. Print media such as newspapers and magazines continue to be an important channel for mass communication. Television, websites, blogs and social media are mass communication channels that probably engage with regularly. Radio, podcasts and books are other examples of mass media (Nehru, 2014). The technology required to send mass communication messages distinguishes it from the other forms of communication. Communication is a dynamic interactive process that involves the effective transmission of facts, ideas, thoughts, feelings and values. The present study is an attempt to find out the perception of prospective teachers on the influence of mass media in developing oral communication skill in English.

OBJECTIVES

1. To study the level of perception of prospective teachers on the influence of mass media in developing oral communication skill in English.

2. To find out the significant difference if any in the perception of male and female prospective teachers on the influence of mass media in developing oral communication skill in English.

3. To find out the significant difference if any in the perception of rural and urban prospective teachers on the influence of mass media in developing oral communication skill in English.

4. To find out the significant difference if any in the perception of prospective teachers of Science and Humanity subjects on the influence of mass media in developing oral communication skill in English.

HYPOTHESES

1.There is no significant difference in the perception of male and female prospective teachers on the influence of mass media in developing oral communication skill in English.

2. There is no significant difference in the perception of rural and urban prospective teachers on the influence of mass media in developing oral communication skill in English.

3. There is no significant difference in the perception of prospective teachers of Science and Humanities subjects on the influence of mass media in developing oral communication skill in English.

METHOD

The investigator used normative survey method for collecting the data.

SAMPLE

The sample consisted of 400 prospective teachers selected from various colleges of education in Kanyakumari district.

TOOLS

Tool used for this study was Mass Media Perception Inventory constructed by the investigators.

STATISTICAL TECHNIQUES

t test and F test (ANOVA) were used for analyzing the data.

RESULTS AND DISCUSSION

Level of Perception of Prospective Teachers on the Influence of Mass Media in Developing Oral Communication Skill in English

The percentage wise distribution of different levels of perception of prospective teachers on the influence of mass media in developing oral communication skill is given in table 1.

Table 1

Level of Mass Media Perception of Prospective Teachers

Variable	Level	No. of sample	%
Perception of Prospective teachers on the influence of Mass media	Low	71	17.8
	Moderate	268	67.0
	High	61	15.2
	Total	400	100

It is inferred from table 1 that 17.8 % of prospective teachers have low perception on the influence of mass media, and 67.0 % of moderate level and 15.2 % of them have high level of perception on the influence of mass media. Majority of the prospective teachers have moderate level of perception on the influence of mass media.

Comparison of Perception of Male and Female Prospective Teachers on the Influence of Mass Media in Developing Oral Communication Skill in English

The gender wise difference with respect to perception on the influence of mass media were analyzed using t test. The mean values obtained by males was 80.45 and that of females was 78.63. The corresponding standard deviations were 6.99 and 7.37 respectively. The details are presented in Table 2.

Table 2

Mean, Standard Deviation and Calculated t value of Perception of Prospective Teachers on the influence of Mass media with respect to Gender

Variable	Gender	Number	Mean	Standard Deviation	Calculated t value	Remark at 0.05 level
Perception on the influence of Mass media	Male	47	80.45	6.99	1.60	NS
	Female	353	78.63	7.37		

From Table 2 it is observed that the computed t value (1.60) is less than the theoretical value 1.96 at 0.05 level. So it is not significant at 0.05 level. Hence the null hypothesis, "there is no significant difference in the perception of male and female prospective teachers on the influence of mass media in developing oral communication skill in English" is accepted.

It can be said that there is no significant difference in the perception of male and female prospective teachers on the influence of mass media in developing oral communication in English.

Comparison of Perception of Rural and Urba Prospective Teachers on the Influence of Ma Media in Developing Oral Communication Ski in English

Locale wise difference with respect t perception on the influence of mass media wer analysed using t test. The mean value obtained b prospective teachers in rural locality was 77.89 an that of urban locality was 80.94. The correspondin standard deviations were 7.12 and 7.42 respectivel The details are presented in Table 3.

Table 3

Mean, Standard Deviation and Calculated t-value of Perception of Prospective Teachers on the influence of Mass media with respect to Locale

Variable	Locality	Number	Mean	Standard deviation	Calculated t value	Remark at 0.05 level
Perception on the influence of Mass media	Rural	275	77.89	7.12	3.91	S
	Urban	125	80.94	7.42		

From Table 3, it is observed that the computed t value (3.91) is greater than the value 1.96 at 5% level of significance. So it is significant at 0.05 level. Hence the null hypothesis, "there is no significant difference in the perception of rural and urban prospective teachers on the influence of mass media in developing oral communication skill in English" is rejected.

It can be said that there exists significant difference in the perception of rural and urban prospective teachers on the influence of mass media in developing oral communication skill in English.

Comparison of Perception of Science an Humanities Prospective Teachers on th Influence of Mass Media in Developing Ora Communication Skill in English

Subject wise difference with respect t perception on the influence of mass media wer analysed using t test. The mean value obtained b prospective teachers of Arts subjects was 77.1 and that of prospective teachers of Science Subject was 79.40. The corresponding standard deviation were 7.48 and 7.20 respectively. The details ar presented in Table 4.

Table 4

Mean, Standard Deviation and Calculated t value of Perception of Prospective Teachers on the Influence of Mass media with respect to Subjects

Variable	Subject	Number	Mean	Standard deviation	Calculated t value	Remark at 0.05 level
Perception on the influence of Mass media	Arts	171	78.11	7.48	1.75	NS
	Science	229	79.40	7.20		

From table 4, it is observed that the computed t value (1.75) is less than the value 1.96 at 5% level of significance. So it is not significant at 0.05 level. Hence the null hypothesis, "there is no significant difference in the perception of science and humanities prospective teachers on the influence of mass media in developing oral communication skill in English" is accepted.

It can be said that there is no significant difference in the perception of prospective teachers of Science and Humanities subjects on the influence of mass media in developing oral communication in English.

THE MAJOR FINDINGS OF THE STUDY WERE

1. Majority of the prospective teachers have moderate level of perception on the influence of mass media.

2. There is no significant difference in the perception of male and female prospective teachers on the influence of mass media in developing oral communication skill in English.

3. There is significant difference in the perception of rural and urban prospective teachers on the influence of mass media in developing oral communication skill in English.

4. There is no significant difference in the perception of prospective teachers of Science and Humanities subjects on the influence of mass media in developing oral communication skill in English.

CONCLUSION

In general, the findings of the study indicate that majority of the prospective teachers have moderate level of perception on the influence of mass media in developing oral communication in English.

From the findings, the investigator reached at a conclusion that no significant difference exists in the perception of prospective teachers on the influence of mass media in developing oral communication skill with respect to gender and subject of study of prospective teachers. Oral communication ability is needed to secure a good job. Hence it is need of the hour to enhance the oral communication skill in English and steps are to be taken towards that direction.

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Effect of Yoga on Systolic Blood Pressure of Mentally Retarded Group

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ABSTRACT

The main objective of the present investigation is to find out the effect of yoga on mentally retarded group. Experimental method was adopted in this study. The sample consisted of one hundred and twenty mentally retarded children from the total population of one hundred and fifty students of C.S.I mentally retarded school, Kotticode, Kanyakumari District. Mentally retarded children having Intelligence Quotient of fifty to fifty five percent and thirteen to sixteen years of age were randomly selected as subjects. They were divided into four groups each consisting of thirty subjects. The groups were designated as, Group A (Age 13 – 14), B (Age 15 – 16) experimental group and C (Age 13-14), D (Age 15-16) control group. The physiological variable chosen for the study was systolic blood pressure. The chosen variable was monitored for significant improvement during mid-training period and post-training period. The study revealed that there is no significant improvement in systolic blood pressure of mentally retarded group after yoga training.

INTRODUCTION

Man is the most intelligent and admirable being among all the creations of God. His quest for knowledge is eternal and insatiable and it is education that completely modifies the behaviour and personality of the individual.

Mental retardation is the impairment in intelligence from early life, slow mental development during the growth period, reduced learning abili lack of social and behavioural adjustment.

It is a state of mental defect from birth an early age, because of which a person is unab to perform his duties as a member of the socie His span of attention is less and capacity for learni and ability to retain what is learnt is also less. H speech is also retarded because speech is somethi he has to learn from what he hears. Therefo because of limited ability he learns to speak l and at a slower level. What he speaks may also defective because his ability to discern is faulty.

Mental retardation is a learning disorder which the abilities of brain's memory recall, thoug and reasoning are impaired. Parrot fashion learni of simple musical tunes, nursery rhymes as well some activities of daily living can be achieved b normal language, comprehension and schooling ca never happened in severely retarded children. Th cognitive learning is delayed even in a mildly retarde child.

Mental retardation is not a disease. It is disability. It is not infectious. It can happen to an normal person, rich or poor, educated o uneducated, urban or rural. Mental illness an mental retardation are two different entities. Th mentally retarded behaves like a person muc younger than himself. He remains child like whe grown up fully.

The movements of the different parts of th body are controlled by the brain. The characteristic of the mentally retarded persons vary, depending upon the level of retardation. The terms currently used to describe the various degrees of mental retardation are mild, moderate, severe and profound. In a mentally handicapped child, the brain develops very slowly because it has been damaged due to various reasons. This can happen before, during or after birth. Because of this damage, the child's development is slow.

OBJECTIVE

To find out the effect of yoga on systolic blood pressure of mentally retarded group of children.

METHOD

Experimental method was employed for the present study.

SAMPLE

One hundred and twenty mentally retarded children of C.S.I mentally retarded school, Kotticode, Kanyakumari district were taken for the present study.

EXPERIMENTAL PROCEDURE

The random group design was employed for the study. Two groups were subjected to the experimental treatment. During the period of experiment, Group A (Age 13-14) and B (Age 15-16) were given yoga practice, and C (Age 13-14) and D (Age 15-16) were given no practice. The yoga practice was given for the experimental group for one hour in the evening for all the days, excluding Saturdays and Sundays, for a period of twelve weeks

General warming up was given for five to ten minutes and the Asanas were given for thirty five to forty five minutes on all the training days.

The subjects were given adequate time to relax on the chair in a comfortable position before the systolic blood pressure was recorded. While taking the systolic blood pressure, the subjects right arm was completely made bare to make certain that the clothing did not construct the blood vessels. The instrument was kept at the level of the heart on the table. The systolic blood pressure measure was taken with the subjects in the sitting position, the fore arm being kept straight in the relaxed position on the table. The systolic blood pressure measure was wrapped around the arm evenly the lower edge being placed approximately one inch above anticubital space. The stethoscope receiver was placed firmly over the bronchial artery in the anti cubital space taking care that the stethoscope was not in contact with the cuffs. The cuff was inflated until the artery was fully pressed so that no pulse beat was heard. When the pulse beat was not audible, air was slowly released by opening the air valve of the rubber tube and the systolic stroke of the heart sent the blood spurt into the artery and at the peak of the systolic stroke the first pulse beat become audible at which instant the reading of the mercury was recorded in millimeter. With the gradual release of the air the pulse beat became more and more audible and then the sound became muffled and then disappeared. This indicated blood pressure at the diastolic stage and the reading was recorded in millimeter.

STATISTICAL TECHNIQUES

1. Paired t test
2. Analysis of Covariance
3. t test

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RESULTS AND DISCUSSION

EFFECTIVENESS OF YOGA ON SYSTOLIC BLOOD PRESSURE

Table 1

Effectiveness of Yoga on Systolic Blood Pressure for Total Sample

Stage	Mean	SD	N	Pair	Mean Difference	Paired 't'
Pre	118.2	1.5	60	Pre Vs Mid	0.1	0.57 *
Mid	118.2	1.4	60	Pre Vs Post	0.1	1.02 *
Post	118.3	1.5	60	Mid Vs Post	0.0	0.34 *

* insignificant

Required table value = 1.67

Effectiveness of yoga on systolic blood pressure is presented in Table 1. The average score regarding systolic blood pressure at pre test level, mid level and post test level are 118.2,118.2and 118.3 respectively. An increase of 0.1can be observed in systolic blood pressure during mid level assessment as a result of the implementation of yoga.

The paired t statistics (t=0.57) is statistic not significant. The table also shows that the incre in systolic blood pressure between pre test le and post test level (t=1.02), mid level and post level (t=0.34) are also not significant. Thus it be concluded that there is no improvement in systolic blood pressure after six and twelve we of yoga training.

Table 2

Effectiveness of Yoga on Systolic Blood Pressure of Age Group 13-14

Age	Stage	Mean	SD	N	Pair	Mean Difference	Paired 't'
13-14	Pre	117.2	1.3	30	Pre Vs Mid	0.3	1.57 *
	Mid	117.4	1.3	30	Pre Vs Post	0.0	0.44 *
	Post	117.2	1.2	30	Mid Vs Post	0.2	1.48 *

* insignificant

Required table value = 1.69

Effectiveness of yoga on systolic blood pressure of age group 13-14 is presented in Table 2. The average score regarding systolic blood pressure at pre test level, mid level and post test level are 117.2, 117.4 and 117.2respectively. An increase of 0.3 can be observed in systolic blood pressure during mid level assessment as a result of the implementation of yoga.

The paired t statistics (t=1.57) shows t statistically not significant. The table also shows t the increase in systolic blood pressure between test level and post test level (t=0.44), mid level a post test level (t=1.48) are also not significant. T it can be concluded that there is no improvement the systolic blood pressure after six and twe weeks of yoga training.

Table 3

Effectiveness of Yoga on Systolic Blood Pressure of Age Group 15-16

Age	Stage	Mean	SD	N	Pair	Mean Difference	Paired 't'
15-16	Pre	119.1	1.0	30	Pre Vs Mid	0.1	0.72 *
	Mid	119.0	0.9	30	Pre Vs Post	0.2	0.92 *
	Post	119.3	0.9	30	Mid Vs Post	0.3	1.31*

* insignificant

Required table value = 1.69

Effectiveness of yoga on systolic blood pressure of age group 15-16 is presented in Table 2. The average score regarding systolic blood pressure at pre test level, mid level and post test level are119.1, 119.0 and 119.3 respectively. An increase of 0.1 can be observed in systolic blood pressure during mid level assessment as a result of the implementation of yoga.

The paired t statistics (t=0.72) shows that there is no increase in systolic blood pressure which is statistically not significant. The table also shows that the increase in systolic blood pressure between pre test level and post test level (t=0.92), mid level and post test level (t=1.31) are also not significant. Thus it can be concluded that there is no improvement in the systolic blood pressure after six and twelve weeks of yoga training.

Table 4

Comparison of Systolic Blood Pressure of Experimental and Control groups for Total Sample Analysis of Covariance (ANCOVA)

Stage			Mean		Source	Sum of Squares	df	Mean Square	F
			Control	Yoga					
Pre-test (X)			118.1	118.2	Between Groups	0	1	0	0.02*
					Within Groups	258	118	2	
					Total	258	119		
Post-test (Y)			118.3	118.3	Between Groups	0	1	0	0*
					Within Groups	267	118	2	
					Total	267	119		
Adjusted Post-test (Y.X)	118.3	118.3	Between Groups	0	1	0		0.06*	
			Within Groups	57	117	0			

* insignificant

Required table value = 3.93

Analysis of covariance (ANCOVA) is used to determine whether the groups differ in average systolic blood pressure at post test level as a result of the yoga applied on one group.

A preliminary analysis of variance (ANOVA) carried out for pretest and posttest taken separately. The average systolic blood pressure at pre test level is 118.1and118.2 respectively for those in the control group and experimental group (Yoga). The F test applied to the initial systolic blood pressure score (Fx =0.02) shows that there is no significant difference in systolic blood pressure between the groups at pre test level. The F statistics for the final score (Fy =0.02) is insignificant.

After correcting the final systolic blood pressure for difference in initial scores, F statistics was applied to the final score. The value of the ANCOVA (Fy.x =0.06) is insignificant. From Fy.x, it is clear that the final average score on systolic blood pressure after adjusted for the initial difference in experimental group (118.3) significantly differs from that in the control group (118.2). So it can be concluded that there is no improvement in the systolic blood pressure after yoga training.

Table 5

Comparison of Systolic Blood Pressure under Yoga and Control for Age Group 13-14

Analysis of Covariance (ANCOVA)

Stage	Mean		Source	Sum of Squares	df	Mean Square	F
	Control	Yoga					
Pre-test (X)	117.3	117.2	Between Groups	0	1	0	0.24*
			Within Groups	101	58	2	
			Total	101	59		
Post-test (Y)	117.4	117.2	Between Groups	1	1	1	0.36*
			Within Groups	98	58	2	
			Total	99	59		
Adjusted Post-test (Y.X)	117.3	117.3	Between Groups	0	1	0	0.19*
			Within Groups	8	57	0	

* insignificant

Required table value = 4.02 level

A preliminary analysis of variance (ANOVA) was carried out for pre test and post test taken separately. The average systolic blood pressure at pre test level is 117.3 and 117.2 respectively for those in the control group and experimental group (Yoga). The F test applied to the initial systolic blood pressure score (Fx = 0.24) shows that there is no significant difference in systolic blood pressure between the groups at pre test level. The F statistics for the final score (Fy = 0.36) is insignificant.

After correcting the final systolic blood pressure for difference in initial scores, F statistics was applied to the final score. The value of the ANCOVA (Fy.x =0.19) is not significant. From Fy.x, it is clear that the final average score on systolic blood pressure after adjusted for the initial difference in experimental group (117.3) significantly differs from that in the control group (117.2). So it can be concluded that there is no improvement in the systolic blood pressure for age group 13-14 after yoga training.

Table 6

Comparison of Systolic Blood Pressure under Yoga and Control for Age Group 15-16

Analysis of Covariance (ANCOVA)

Stage	Mean		Source	Sum of Squares	df	Mean Square	F
	Control	Yoga					
Pre-test (X)	117.3	117.2	Between Groups	0	1	0	0.24*
			Within Groups	101	58	2	
			Total	101	59		
Post-test (Y)	117.4	117.2	Between Groups	1	1	1	0.36*
			Within Groups	98	58	2	
			Total	99	59		
Adjusted Post-test (Y.X)	117.3	117.3	Between Groups	0	1	0	0.19*
			Within Groups	8	57	0	

* insignificant

Required table value = 4.02 level

A preliminary analysis of variance (ANOVA) is carried out for pre test and post test taken separately. The average systolic blood pressure at pre test level is 118.9 and 119.1. respectively for those in the control group and experimental group (Yoga). The F test applied to the initial systolic blood pressure score (Fx = 0.76) shows that there is no significant difference in systolic blood pressure between the groups at pre test level. The F statistics for the final score (Fy =0.62) is insignificant.

After correcting the final systolic blood pressure for difference in initial scores, F statistics was applied to the final score. The value of the ANCOVA (Fy.x =0.12) is insignificant. From Fy.x, it is clear that the final average score on systolic blood pressure after adjusted for the initial difference in experimental group (119.3) significantly differs from that in the control group (119.2). So it can be concluded that there is no improvement in the systolic blood pressure for age group 15-16 after yoga training.

CONCLUSION

The study revealed that yoga training has no effect on the systolic blood pressure of mentally retarded group.

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Awareness of AIDS Among College Students

• Prasad P.S.
•• Dr. Minikumari V. S.

ABSTRACT

AIDS is a killer disease spreading rapidly and emerged as a serious social, economic and public health problem. There are a lot of myths and misconceptions related to transmission of HIV and AIDS. HIV positive people are suffering from cruellest form of stigma and discrimination. Awareness of HIV and AIDS helps to dispel unnecessary fears, myths and misconception, stigma and discrimination. Prevention through education is the only approach to fight the transmission of HIV, which causes AIDS, and that education must begin before young people initiate sexual activity. The present study has made an attempt to study the AIDS awareness of college students. The sample consisted of 400 Arts and Science college students. Data was collected by using AIDS awareness test. Results indicated that college students have moderate level of AIDS awareness

INTRODUCTION

AIDS is a killer disease spreading rapidly and emerged as a serious social, economic and public health problem. AIDS has spread to every part of the world. In India, HIV appeared much later than in other parts of the world. "The total number of people living with HIV/AIDS in India was estimated at around 20.9 lakh in 2011, 86% of whom were in 15-49 years age-group. Children less than 15 years of age accounted for 7% (1.45 lakh) of all infections in 2011. Of all HIV infections, 39% (8.16lakh) were among women" (NAC, O 2013)

There are lot of myths and misconceptions related to transmission of HIV and AIDS. HIV positive people are suffering from cruellest form of stigma and discrimination. Awareness of HIV and AIDS helps to dispel unnecessary fears, myths and misconception, stigma and discrimination. As till time, there is no preventive vaccine available to cure AIDS. The only option to prevent it is through generating social and behavioral awareness among people. Prevention through education is the best approach to fight the transmission of HIV which causes AIDS and that education must begin before young people initiate sexual activity. Here comes the role of parents and teachers to provide health education and sex education with open mind to their children/students.

NEED AND IMPORTANCE OF THE STUDY

AIDS is a serious socially challenging phenomenon as it acts as a threat to humanity. AIDS is not restricted to any specific regions of the world and individual , it can infect and affect anybody .

Young people are comparatively more vulnerable to HIV infection than older people,

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primarily because of prevailing social situations, ignorance, myths, taboos and attitudes. United Nations report (2002) stated that most youth do not know the modes of HIV transmission and they also do not know any methods in which they can protect themselves from contracting the virus.

NACO (2004) estimates that 87.7% of HIV infections are among youth in 15-44 year age group. It reflects a global trend of increasing infections among younger people. Young teenagers are acquiring the disease through "sexual contact, sexual abuse, blood transfusion and unsterilized syringes, including injection of drugs.

The WHO (2004) estimates that youth ages 18-24 comprises 50% of all new HIV infections.

"In 2010 young people aged 15–24 accounted for 42% of new HIV infections in people aged 15 and older." (UNAIDS. 2012)

"India has the third highest number of estimated people living with HIV in the world. According to the HIV Estimations 2012, the estimated number of people living with HIV/AIDS in India was 20.89 lakh, with an estimated adult (15-49 age group) HIV prevalence of 0.27% in 2011." (NACO, 2013)

The inference is that young people are at the centre of epidemic and if unchecked would engulf the major and most vibrant human resource and development of the country. The behaviour they adopt now and which they probably maintain throughout their sexual lives would determine the course of the epidemic for decades to come.

College students are the most crucial group which is likely to be infected more than the general public because of certain habits and attitudes developed by them. They are still in the early stage of sex related habits formation.

AIDS is still a closed topic In Indian culture. Ignorance is a bliss unless and until it affects humanity badly. Since college students are m the target of AIDS, awareness should be giv them. The future of a nation depends upon present generation learners. Healthy citizens a can lead a country to development. Hence it i need of the hour to develop awareness am college students regarding this epidemic. The pre study has been undertaken to find out the awaren of AIDS among college students.

OBJECTIVES

1. To study the level of AIDS awarene among college students.

2. To compare the mean scores of AI awareness of college students with respect to t background variables namely, gender, locale of t student, subject of study and level of education

HYPOTHESIS

There exists no significant difference in t mean scores of AIDS awareness of college stude with respect to the background variables name gender, locale of the student, subject of study a level of education.

METHOD

For the present study, normative surv method was used.

SAMPLE

The sample for the present study consist of 400 Arts and Science college students studyin in different colleges of Kanyakumari District.

TOOL USED

AIDS awareness test prepared by th investigators.

STATISTICAL TECHNIQUES

For the present study, the followin statistical techniques were used.

Arithmetic Mean, Standard deviation an t test

RESULTS AND DISCUSSION

Table 1

AIDS Awareness of College Students

Number	Mean	Standard Deviation
400	20.83	5.82

From the above table, it can be seen that, arithmetic mean was 20.83, out of a total of 40. This shows that college students have moderate AIDS awareness.

Table 2

Data and Results of t test of AIDS Awareness Scores of College Students

Variable	Category	Mean	SD	N	t-Value	Remark
Gender	Male	20.23	6.29	193	1.903	NS
	Female	21.34	5.29	207		
Locale	Rural	20.26	5.25	193	1.876	NS
	Urban	21.32	6.04	207		
Subject of study	Arts	19.56	4.94	189	4.092	S
	Science	21.88	6.37	211		
Level of Education	UG	19.9	5.44	240	4.12	S
	PG	22.4	6.07	160		
Subject of study	Biological Science	24.17	5.64	99	5.151	S
	Physical Science	19.94	6.28	112		

From table 2 it can be seen that there is no significant difference in the mean scores of AIDS awareness of sub samples, male and female (t value-1.903), and rural and urban students (t value-1.876).

There is significant difference in the mean scores of AIDS awareness of college students of arts and science subjects (t value-4.092). Science students have more AIDS awareness than the Arts students. There is significant difference in the mean scores of AIDS awareness of undergraduate and post graduate college students (t value-4.092). Post graduate students have more AIDS awareness than the undergraduate students. There is significant difference in the means scores of AIDS awareness of college students of Biological science and Physical science (t value-5.151).Biological science students have more AIDS awareness than the Physical science students.

MAJOR FINDINGS

1) From this study, it is found that the college students have moderate AIDS awareness.

2) Gender and locality had no influence on the AIDS awareness of college students

The study provides evidence that college students have moderate AIDS awareness. Level of Education and subject of study had influence on the AIDS awareness of college students. Gender and locality had no influence on the AIDS awareness of college students.

Keeping the findings in the mind, the investigator suggested that awareness of AIDS will help the college students to protect themselves from HIV. Providing AIDS education to college students make them aware about the consequences of AIDS. Knowledge about AIDS can be given to college students through through discussion and awareness programmes. College students should be encouraged to involve in Red ribbon club activities. Through the activities of Red ribbon club they can

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Cloud Computing Based Curricular Transactional Process in Teacher Education

• Dr. Swamy Dhas P.

ABSTRACT

Cloud computing is computing in which large groups of remote servers are networked to allow the centralized data storage, and online access to computer services or resources. Clouds can be classified as public, private or hybrid. Cloud computing relies on restricting sharing of resources to achieve coherence and economies of scale, similar to a utility (like the electricity grid) over a network. At the foundation of cloud computing is the broader concept of converged infrastructure and shared services.

INTRODUCTION

National Institute of Standards and Technology of U.S. Department of Commerce defines cloud computing as a model for enabling ubiquitous, convenient, on demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction"(Mell and Grance,2011).

Ross (2010) defines cloud computing as a style of computing in which scalable and elastic IT-enabled capabilities are delivered as a service using Internet technologies.

The present availability of high-capacity networks, low-cost computers and storage devices as well as the widespread adoption of hardware virtualization, service-oriented architecture, and autonomic and utility computing have led to a growth in cloud computing.

The term "cloud" is used as a metaphor for the Internet since it doesn't matter where the hardware and software resources that are used are located. For IT professionals, cloud computing is a new business model and a new technology platform for developing and deploying applications, and for end-users a new and cheaper way to use applications.

Mobile Cloud Computing (MCC) is combination of two terms, mobile computing and cloud computing. Mobile computing is provision of applications on mobile devices. Cloud computing refers to getting paid services either in the form of infrastructure, platform or software through internet based cluster of distributed servers. Mobile cloud computing is provision of mobile applications using cloud to give more power to mobile devices towards computing, in spite of resource limitations in mobile devices. Mobile cloud computing is a concept that has been in use since 2009 and is still evolving.

Cloud computing is characterized by

1. Scalability (extent and amount of used resources according to the needs of the application and paid on the actual use of resources),

2. Mobility and

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Frontiers in Education and Research

(A Bi-Annual Interdisciplinary Journal in Education)

Published by

N.V.K.S.D. COLLEGE OF EDUCATION, ATTOOR
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One Year (2 issues)	₹ 300	$15
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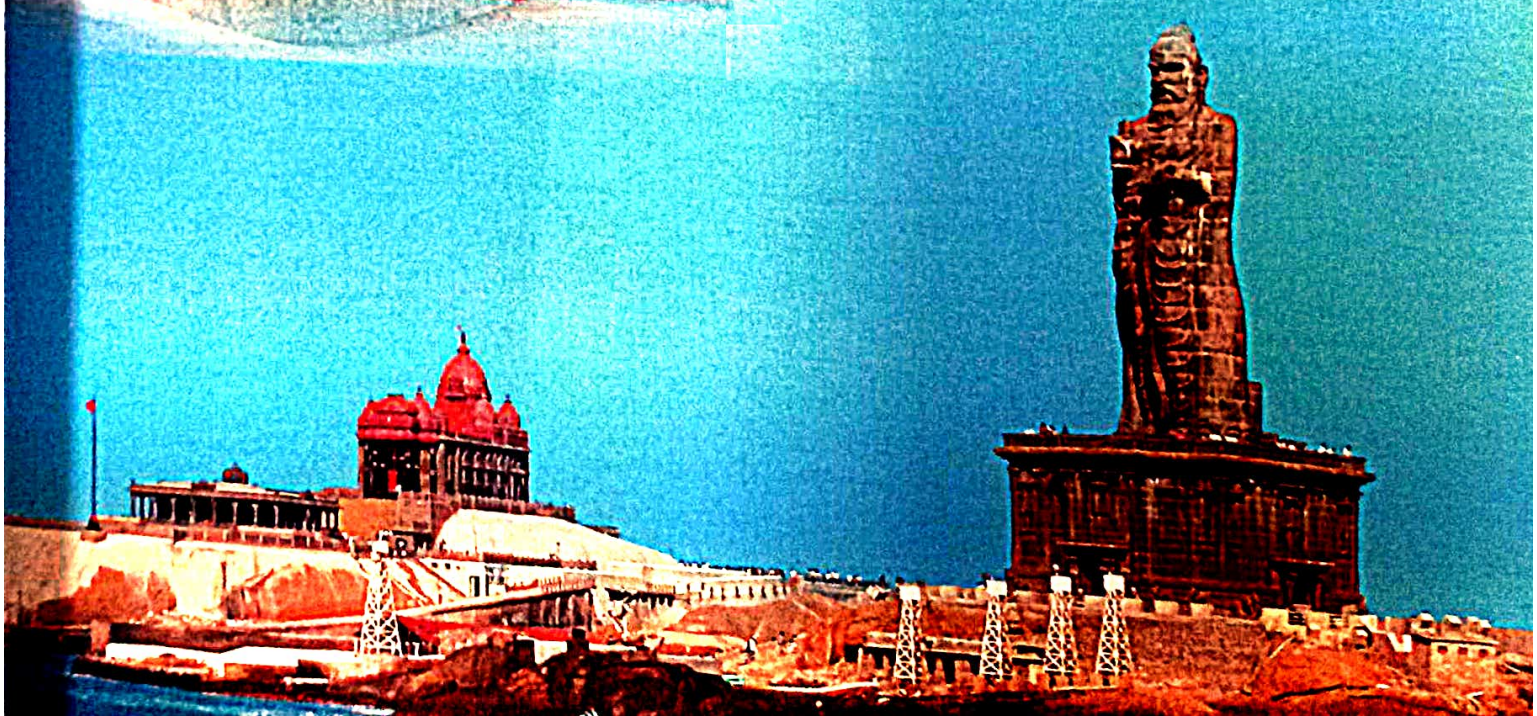
ISSN 2277-3576

ONTIERS IN EDUCATION AND RESEARCH

A Bi-Annual Journal

N.V.K.S.D.COLLEGE OF EDUCATION
ATTOOR

Vol 6 Issue 2
July 2016



FRONTIERS IN EDUCATION AND RESEARCH

A Bi-Annual Research Journal of N.V.K.S.D. College of Education

Volume 6, Issue 2, July 2016

N.V.K.S.D. COLLEGE OF EDUCATION

(Re-accredited by NAAC with 'A' Grade)

Attoor, Kanniyakumari District, Tamil Nadu.

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Editorial

"Technological Trends In Teacher Education"

The development of technology has revolutionized each and every aspect of our culture and society. Societies across the world are rapidly changing in fundamental ways, especially with regard to availability and easy way to access the digital information and comunication technologies. Teacher education is in the transition phase due to the rapid change in technological development and students values. teacher education needs to prepare teachers to face the changing technological contexts, and to model pedagogies and tools for better forms of learning. Teachers and their pre-dominant classroom practices remain traditional even in this era of rapid change. Educational curriculam at all levels was very narrowly defined for students in many developing countries even in this technological ere. It is consistently reported that the teachers entering into the education field have minimum level of preparatory experience without technologically integrated lessons. Teacher education plays a crucial role for successful technological integration in schools. Teacher preparation on technologies should provide teachers with a solid understaning of the various media, their affordability and their constraints. Since teachers tend to teach, as they were taught, the instructional strategies were reasonably not prepared to meet the digital demands of the 21st century knowledge world. Such instructional strategies were not able to meet the digital skill expectations of the teachers and the students. The instructor in a teacher perparation course should structure

the learning environment, so that the new generation teacher will have the opportunity to model expert behavior to use technology based teaching and learning. If the teacher educator is an expert in technological based teaching, he can be a role model for students. Furthermore teacher education programme should not simply offer a course in educational technology but also demonstrate efective use of technology in teaching different subjects.

Hence it is important that teachers can be prepared not only to use the technological aspects of today, but should be able to handle systematically and analytically the technology that may evolve later. To achieve the best synergy in quality pedagogy, today's technology needs to be integrated with the tomorrow's emerging technology.

Editor

CONTENTS

New Ways of Seeing : Critical Thinking among Visually Challenged Students **Dr. William Dharma Raja B. & Bincy Mathew**	1-7
School and Home Environment - The Secret of Effective on Achievement in Mathematics among High School Students **Dr. Sheeja C.**	8-10
Effectiveness of Blogs in Learning Educational Psychology among Prospective Teacher Educators **Dr. Sivakumar D.**	11-15
Logical Mathematical Intelligence in Physics: A Study among Secondary School Students **Binitha Das .D.B**	16-21
Blending Inverted Classroom Strategies for Enhancing Achievement in Mathematics among Secondary Teacher Education Students **Dr. Thiyagu K.**	22-26
Research Colloquium Philosophy as a Foundation for Quality Research **Dr. Joseph Kacharayil**	27-30
A Study on Life Skills of Prospective Teachers **Deepthi. S. S & Dr. Sreelatha S.**	31-35

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New Ways of Seeing : Critical Thinking among Visually Challenged Students

William Dharma Raja B.
Mathew

NTRACT

The mere formulation of a problem is far re essential than its solution, which may be merely matter of mathematical or experimental skill. To ve new questions, new possibilities, to regard old oblems from a new angle require creative agination and critical thinking. (Albert Einstein, 38, p92)

The above statement reveals a whole new ension of critical thinking. Using this concept, blaze into one of the social cognitive or higher der thinking skills of critical thinking. The paper uses on three major aspects of critical thinking lls namely, in-depth knowledge, explicit ntification and instruction, and the role of attitudes d dispositions among visually challenged students d their learning style. Critical thinking (CT) is not ew concept. People are not abstract individuals o live as fragments, in isolation from one another. uman beings become who they are and change to o they are as a result of their connections to the cial sphere. One learns to think and act via socially nstructed languages, behave in ways acceptable the cultural norms of one's society. Adolescents o are visually challenged face a lot of problems mpared to their peers. Their thirst for knowledge often neglected, as a result their chances of celling in the society is minimized. The complex enhances one's wisdom to bring about a better d just world.

Human beings live in a turbulent time, especially when the issues are surrounding education, schooling and success in achieving within educational institutions. Critial thinking that emerge from the higher order thinking skills of social cognition. Social cognition emphasizes verbal representations of knowledge. It is the organized representations that provide the basis for cognitive structures. Early forms of these structures include beliefs, attitudes, and values (Delamater, 2006). Cognitive processes rely upon organized knowledge, in the form of cognitive structures. Social cognitive thinking provides alternative instructional strategies for problem solving, creative thinking, critical thinking, metacognition as well as cooperative learning (Mathew & Raja, 2015a). The need for efficiency and social motives shape one's processing of social information. Fluid social interactions would be impossible if children process information without cognitive shortcuts (Fiske & Taylor, 1991). Heuristics and biases allow them to limit the amount of ideas they must encode and process during an interaction and it facilitate inferential processes. Social motive, however, leave their influence on how one thinks. Social motives may even lead to adopt heuristics knowingly for interpersonal ends (Heimer, 1988).

SOCIAL COGNITIVE SKILLS

Situations, skills and outcomes are components that challenge the thinker to do higher

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order thinking. Some interpretations might have placed metacognitive thinking as part of the connecting network; however, it appears as one of the higher order thinking skills. The concept of metacognition actually comes from Sternberg's (cited in Crowl et al., 1997) triarchic theory of intelligence. Some of the social cognitive skills include metacognition, critical thinking, problem solving, decision making, creative thinking, reasoning, logical analysis and so on.

Metacognition is the skill associated with the learner's awareness of his or her own thinking(Barbara Preseason, 1987).It is often referred to as "thinking about thinking" and it can be used to help students "learn how to learn". In this way metacognition is an essential aspect in the process of learning. The gradual growth of cognitive abilities such as ability to attend, perceive discover, recognize, imagine, conceptualize remember etc. if referred as the development of cognitive skills. It also refers to consequent growth in knowledge and adjustment to the environment. The nutritional, emotional and social factors of the learners influence the cognitive development.

CRITICAL THINKING: A NEW-FANGLED VIEW OF SOCIAL COGNITION

Critical Thinking (CT) is a mental activity of evaluating arguments or propositions and making judgments that can guide the development of beliefs and taking action (Gilster, 1997). The CT is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. In its exemplary form, it is based on universal intellectual values that transcend subject matter divisions: clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breath, and fairness (Scriven & Paul, 1987).The common features of the CT are open-mindedness to new ideas, different ideas about the meaning of words, unique emotional and logical thinking, avoidance of common mistakes in reasoning, building a strong vocabulary to better share and understand ideas, needs more information (Varela,1999).

Some researchers and scholars use the terms CT and higher order thinking or social cognitive skill interchangeably, while others define critical thinking as a form of higher order thinking. Parker and Tappan (2001) revealed that young people develop cognitive skill of CT as they develop other skillsof emotional maturity, moral and spiritual values. Weil (2004) found that CT in the early elementary grades simply is not developmentally appropriate. It reveal that students need to be taught what to think, not how to think. Some use the terms "critical thinking" and "problem solving" interchangeably; yet for others, CT is a form of problem solving. Still others define "critical thinking" as a part of the process of evaluating the evidence collected in problem solving or the results produced by thinking creatively (Crowl et al., 1997; Lewis & Smith, 1993). CT is a particular domain that has been defined in detail through Gubbins' Matrix of Critical Thinking(cited in Legg, 1990), Facione, 1998;Marzano, and others,(1992). CT also has been described in the following ways: goal-directed, reflective, and reasonable thinking, as in evaluating the evidence for an argument for which all the relevant information may not be available (Cotton, 1997; Facione, 1998; Lewis & Smith, 1993; Patrick, 1986).It is an essential component in metacognitive processes (Crowl et al., 1997).The analysis, inference, interpretation, explanation, and self-regulation; requires inquisitive, systematic, analytical, judicious, truth-seeking, open-minded, and confident dispositions towards critical-thinking processes (Facione, 1998). A disposition to provide evidence or reasoning in support of conclusions, request evidence or reasoning from others, and perceive the total situation and change one's views based on the evidence (Cotton, 1997).

CT is the use of cognitive skills or strategies that increases the probability of a desirable outcome (Halpern, 1996). It includes formulation of logical inferences, develops logical reasoning (Stall &Stahl with, decides what action to take or what to aware through reasonable reflective thinking (Ennis, with and purposeful determination of whether to accept, reject, or suspend judgments (Moore & Parker, 1994). CT involves the individual's ability to some or all of the following: identify central issues and assumptions in an argument, recognize important relationships, make correct inferences from data, deduce conclusions from information or data provided, interpret whether conclusions are warranted on the basis of data, and evaluate evidence (Pascarella&Terenzini, 1991). The instructional activities of spatial representations of information provide opportunities for students to display knowledge in depth and overall conceptual understanding (Mathew & Raja, 2015a).

THE ESCALATING DOMAIN OF COMPLEX CRITICAL THINKING

A valuable feature of reason is its ability to uncover new perspectives, new angles on the world, everyday life, and self. In a classroom, students of critical thinking studying the World War of 1945 would explore not only U.S. accounts of the conflict, but other European countries perspectives as well. Students would analyze the war in a geopolitical context, an environmental context, and a medical context. The role of the teacher would involve devising new perspectives from which to explore the meaning of the war. Moral and ethical questions would be raised, and students' interpretations of the event and analysis of its personal meaning in their lives would be encouraged.

The model of complex CT demands that students always be allowed to pursue their own conclusions. Many of the traditional education do not offer students alternatives to the point of view that is being taught. Complex CT seeks to explore that, which has been excluded in learning process (Kincheloe& Weil, 2004). Complex CT search for differences profoundly shaping the process of developing curriculum and helps teachers and educational leaders reflect on the purpose of schooling and what it means to be an educated person.

New ways of seeing help critical thinkers achieve higher levels of self-awareness, and liberate them from stale convention. Teachers who can see from a broader perspective become aware of the need for conscious ways of inculcating CT among children. Self-images, inherited dogmas, and absolute beliefs are called into question, and teachers begin to perceive school as a piece of a larger mosaic. The relationship between thinking and acting becomes obvious as the boundary between feeling and logic begins to fade from the cognitive map.

Complex critical thinkers pay close attention to the conditions in which humans confront knowledge, learn, grow and develop. These conditions are socially constructed, as is the language used in them. Children, no matter how brilliant, cannot create the conditions in which they learn and develop. One's social interconnectedness is pre-given, but as one grows, gains the ability to choose how to extend and nurture the relationships.

CRITICAL THINKING AND VISUALLY CHALLENGED

Adolescence is particularly an important stage for the development of CT. During this stage individuals become capable of the kinds of cognitive activities that allow them to engage in CT in its full sense. Two primary theoretical perspectives are particularly important in examining these stages: Piaget's descriptions of the stages of concrete and formal operational thought and insights from information processing theory. Beginning around the age of 12, adolescents enter what Piaget, considered the ultimate stage of cognitive development, the formal operational stage. Formal operational thought is characterized by abstract, flexible, logical, and scientific thinking. Adolescents can apply mental operations not only to concrete objects and events but also to abstractions. They can think about thought itself and reason in terms of theories and possibilities, even those that are contradictory or contrary to fact. They are able to take a systematic approach to problem solving, instead of the trial-and-error or semi-systematic methods employed by younger

children. They can imagine endless possibilities and alternate realities and think deeply about questions of meaning, truth, justice, and ethics. They are able to perform transformations of transformations, think about the relationships and form classes of classes. In other words, they are capable of the mental operations required for and suited to the demands of CT.As Charles Bingham (2001) argues in his essay 'Knowledge Acquisition', one must understand the complexity in order to appreciate how complicated it is to learn. Humans are not atomistic in their ability to acquire knowledge - they must receive help from others to engage in learning. Therefore, to develop CT skill in children calls for attention and assistance in order to emancipate learning.

Modern researchers suggest that individuals seem to proceed through the earlier stages of cognitive development somewhat consistently if given ample environmental stimuli and opportunities; the formal operational stage seems to be more influenced by variables other than purely intellectual capacity (Skaggs, 2004). It suggests that schools have an important role to play in ensuring that adolescents attain the highest level of cognitive skills of which they are capable.

Information processing theories attempt to explore human cognition from the perspective of its component parts. There are three components to an information processing system: the information that is stored; the cognitive processes used to perceive, store, retrieve, transform, and act on information; and the control processes that operate to coordinate the system, known as metacognition (Skaggs, 2004). All of these components are important in CT and show developmental changes that have implications for adolescent thought.

For CT, children are able to use a greater variety of metacognitive strategies to enhance and monitor their thinking than younger children. This superior metacognitive awareness is crucial to the development of CT skills. Children can plan an approach to problem solving, hypothesize, combine, and evaluate multiple sources of information, use effective strategies for carrying out and evaluating their problem solving processes, and evaluate whether their thinking has been effective. CT is a self-directed, self-disciplined, self-monitored and self-corrective thinking that closely associates with reasoning and decision making.It is significant in the learning process of construction of basic ideas, principles, and theories inherent in content (Mathew & Raja, 2015c). Among the visually challenged adolescents the development of CT skills invites special attention. They require special monitoring by teachers, parents and adults. Their CT skill increases with the insightful learning. For them, CT is a diverse approach of considering and making meaning, to discern interconnections between texts, ideas, physical objects and social situations (Kincheloe& Weil, 2004).

Although by virtue of their increased cognitive capacities, visually challenged adolescents are theoretically capable of engaging in critical thinking, the proportion that do so regularly and competently is small. It is important for schools to teach, encourage, and stimulate the type of advanced thinking of which they are capable. The notion of critical thinking is that it can be leaned only by a minority of adolescence or that it cannot be learned at all but that some individuals are simply born with an enhanced ability to think critically. However it is now clear that CT skills can be developed and taught in wide variety of contexts if teachers guide them on a regular basis.

CT AND LEARNING STYLE

Several factors increase the likelihood that adolescents will develop into critical thinkers. The first is in-depth knowledge. Individuals are more likely to think critically about areas in which they have more in-depth knowledge. Although this may be an area in which schools feel they excel, the emphasis here is on the depth of content knowledge and possession of a wide store of isolated facts. Prior knowledge influences what adolescents learn and how well they learn, but this knowledge must be organized, accessible, and meaningful to be used as a springboard for CT. Instruction that promotes deep processing of subject matter will promote not only richer stores of knowledge but more efficient storage and retrieval of that knowledge. It is also important that the basic skills and tools of learning need to be practiced until they become automatic. Automatized skills free cognitive capacity for critical processing (Skaggs, 2004).The students who are struggling to sound out words will have difficulty critically evaluating the impact or veracity of the writing as a whole.

The second factor is explicit identification and instruction of the skills inherent in CT such as hypothesis testing, logic, recognition of bias, problem solving strategies, and analysis like multiple items, meaningful, engaging contexts. The incorporation of CT skills must become part of the culture of schools and not something that is addressed implicitly and haphazardly. Standards for quality in CT also need to be explicitly and precisely identified (Bagell, 1985). Students should be able to evaluate their own thinking and that of others with respect to those standards. Children having difficulty in CT needs constant attention by the teacher in order to enable them to acquire CT skills.

The third factor is the role of attitudes and dispositions involved in CT. One of the reasons that few adolescents engage in CT on a regular basis is due to their temperament and mental makeup. CT requires hard work and entails purposeful and sustained effort. It is important that schools not only teach the thinking skills themselves but also develop the attitudes and dispositions that assure that the skills will be used.

TEACHER AS CRITICAL THINKER

In order to teach critical thinking, teachers must be critical thinkers. They must become scholar practitioners. Most would agree that teaching is a very complex process, and that the development of competence and expertise in the professionals is tied to critical learning. Conley goes on to make one of the encyclopedia's main points; teachers as critical thinkers must be exposed to alternate rationalities, or different ways of making sense of the world (Kincheloe& Weil, 2004)This sets up one of the most important battles in contemporary world. Should teachers be empowered critical thinkers who develop curriculum and direct their own professional lives? Should teachers be rule followers who simply execute standardized curricular materials and instructional practices developed by experts?

For a teacher, to develop CT it is essential to have the ingredients of tolerance, analytical skills, confidence, curiosity, and truth seeking. Logic is central to CT skills and one could assume the kind of logic that it uses as a mental screwdriver with two different purposes: it enables one to take arguments complexly apart and mend and reassemble them. CT has also creative skills like prototyping and brainstorming that helps in creating new ideas and solutions (Cohen, 2015)

EDUCATIONAL IMPLICATIONS

Many approaches have been suggested to teach various thinking skills including problem solving, decision making, creativity, and CT. These approaches differ in terms of their breadth or specificity, their theoretical and philosophical underpinnings, and the degree to which the thinking skills are taught separately and unequivocally in the context of the subject matter. Children, who lack CT skills, have difficulties in acquiring these skill need, special attention. The first fundamental question to be addressed is whether CT skills can be taught? On this point, the answer is clear, CT skills can be taught and they are unlikely to be acquired by the majority of adolescents without obvious teaching. Attempt to teach formal logical or reasoning skills devoid of particular content have not generally resulted in their generalized use (Costa, 2001). However, it is important to make clear the thinking skills that are being taught rather than subsuming them to a particular content. Some CT skills are general to be applied to a wide range of disciplines and visually challenged adolescents explicit instruction to do so. Others are more specific to particular content domains, but the majority of adolescents need guidance in recognizing, practicing, and applying them. They are not passive learners -

they actively seek out information. Teachers in the classroom should enhance CT among the students (Mathew & Raja, 2015d). Schools must foster cognitive development. Teaching CT skills alone is unlikely to result in their widespread use unless they have the attitudes that predispose them to use the skills. Attitudes and predispositions cannot be taught directly, but are more likely to be acquired through the modeling, values and behaviour of teachers and parents.

While framing the secondary education to produce more students who are effective critical thinkers, several challenges must be met. First and foremost there should be a separate curriculum for visually challenged children, especially in mathematics and logical reasoning subjects. Children who are visually challenged finds extremely difficult to solve geometrical problems and science that includes diagrams and drawings. Second challenge is the development of CT in teachers. Many teachers are uncomfortable designing instruction to promote development of CT skills in their students because they are unsure of their own adequacy as critical thinkers. Thus teachers need training not only in the instruction of CT skills, but need ongoing opportunities to explore and practice CT skills themselves. The third challenge is redesigning of the instructional materials that demand rote and fragmented memorization of basic skills and facts. Students need to be engaged with authentic, complex, interesting inquiry, reasoning, interpretation, evaluation, synthesis, and varying strategies and possible solutions (Skaggs, 2004). Standards of excellence should incorporate competence in CT and not rely on test scores alone to make judgments. There are excellent programmes and approaches available, none will succeed if implemented in an uncritical, didactic fashion. None will be effective unless teachers themselves take on the challenges of developing their own abilities and dispositions for CT and truly honour and encourage such thought in their students.

CONCLUSION

CT is always concerned with what could be and what is imminent in various ways of thinking. It is imperative that we take seriously the challenge of preparing children who are visually challenged to be creative critical thinkers. Because it is the skill that will enable them to succeed in a world of igniting information, accelerate change, increasing challenge, and unprecedented new opportunity. Perhaps, the visually challenged children will then be able to shed their inhibition on CT and develop into fully functioning human beings who are the guiding stars for the future generations (Beaty,1992) like that of Helen Keller who ignites the world of darkness with the fire of perseverance.

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School and Home Environment - The Secret of Effective Achievement in Mathematics among High School Students

* Dr. Sheeja C.

ABSTRACT

In modern classrooms, the students have diverse backgrounds, a variety of achievement levels, and different learning styles which will all affect their ability to acquire knowledge. Environment in home may turn to be the possiblities of development in school and also vice versa in one's personal or social life. The study of high school students in relation to environment of school and home as the secret of achievement in Mathematics is the need of the hour.

INTRODUCTION

The modern life is in an increasingly diverse, globalized, and complex, media-saturated society. Even kindergarten children can make a difference in the world by participating in real-life, real-world service learning projects. Every one is now in a situation to be never too young or too old, to make the voice heard and create change that makes the world a better place to live in. The 21st Century skills movement is a growing global movement to redefine the goals of education, to transform how learning is practiced each day, and to expand the range of measures in student achievement, all in order to meet the new demands of the present century. The content and basic skills are applied within the context of the curriculum, and are not ends in themselves. In modern classroom, the students have diverse backgrounds, a variety of achievement levels, and different learning styles which will all affect their ability to acquire knowledge. Teachers need to move away from the traditional methods of teaching and bring into the classroom new and innovating approaches to teach the content and lifelong skills. School as such and also the home environment are the backbone of achievement of any individual.

NEED AND SIGNIFICANCE OF THE STUDY

Personality and behaviour of an invidiual largely depends on his socio-cultural conditions. Home environment is very important factor in the education of a child. It plays a significant role in promoting or retarding child's physical emotional and intellectual development which in turn is reflected in his academic achievement. The heartly home environment and positive attitudes of parents and family members bring desirable impact on children.

Next to home, the environment of the school where they are studing may also influence their achievement. Scholastic achievement and intellectual growth depends to a large extent on home and school environment. If the home and school provides good environment for the students, their achievement will be better. The present study is an attempt to find out the relationship between home and school environment and achievement in mathematics of high school students.

OBJECTIVES

1) To find out the relationship between school environment and achievement in Mathematics of high school students

2) To find out the relationship between home environment and achievement in Mathematics of high school students

HYPOTHESES

1) There is significant relationship between school environment and achievement in Mathematics of high school students.

2) There is significant relationship between home environment and achievement in Mathematics of high school students.

3) There is significant relationship between combined effect of home and school environment and achievement in Mathematics of high school students.

METHOD

The Normative Survey Method was adopted for the present study.

SAMPLE

The sample for the study consisted of 750 high school students in Kanyakumari, Tirunelveli and Virudhunagar District.

STATISTICAL TECHNIQUES

Co-efficient of correlation and multiple correlation were used for the alalysis of data.

TOOL USED

1) Home environment inventory developed and validated by the investigator

2) School environment inventory developed and validated by the investigator.

RESULTS AND DISCUSSION

There is significant relationship between school environment and achievement in Mathematics of high school students.

Table - 1

Correlation between School Environment and Achievement in Mathematics of High School Students

Study Habits and its dimensions	r	SE r	Confidence Interval	Remarks
School Environment	0.076*	0.036	0.140 to 0.010	Significant

*Correlation is significant at the 0.05 level (2-tailed)

It is inferred from Table -1 that school environment (0.076; $p<0.05$), has significant relationship with the achievement in Mathematics of high school students.Hence the hypothesis is accepted.

There is significant relationship between home environment and achievement in Mathematics of high school students.

Table - 2

Relationship between Home Environment and Achievement in Mathematics of High School Students

Variable	r	SE r	Confidence Interval	Remarks
Home Environment	0.147**	0.036	0.240 to 0.061	Significant

**Correlation is significant at the 0.01 level (2-tailed)

It is inferred from Table -2 that home environment (0.147; $p<0.01$), has significant of high school students. Hence the hypothesis is accepted.

* Assistant Professor in Mathematics, CSI College of Education, Parassala, Kerala

There is significant relationship between combined effect of home and school environment and achievement in Mathematics of high school students.

Table - 3

Relationship between of Home Environment, School Environment and Achievement in Mathematics of High School students

Variables	School Environment (X_1)	Home environment (X_2)	Achievement (X_3)	Coef of Multiple Correlation ($R_{1.23}$)	Calculated 'F' value	Table 'F' value	Remarks at 5% level
School Environment (X_1)	1.00	0.201	0.204	0.2443464	5.26	2.64	Significant
Home Environment (X_2)	0.201	1.00	0.320				
Achievement (X_3)	0.204	0.320	1.00				

The result in Table - 3 shows that calculated value of 'F' (5.26) is greater than the table value of 'F' at 5% level of significance. The means that there is significant relationship between combined effect of Home Environment and School Environment on achievement in Mathematics of high school students. Hence hypothesis is accepted

CONCLUSION

The study revealed that there exists significant correlation between home and school environment and schievement in Mathematics of high school students. The study reveals the need for better home and school environment for promoting achievement. Hence teachers should give proper counseling to the parents to improve home environment. Hence the secret of effective achievement in Mathematics among high school students is their effective home and school environment.

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Effectiveness of Blogs in Learning Educational Psychology among Prospective Teacher Educators

...Sivakumar D.

...TRACT

The present study focuses at investigating ...ffectiveness of Blog learning in Educational ...chology. A sample of 50 prospective teacher ...ators was drawn from Senthil College of ...cation, Virudhachalam in the district of ...dalore. Experimental method was used for the ...y, with 25 prospective teacher educators each ...perimental and control groups. The data were ...yzed using t test. The results revealed that there ... significant difference between control and ...erimental group students in their gain scores.

...TRODUCTION

Blogs are personal journals written as a ...ersed chronological chain of text, images or ...timedia, which can be viewed in a web page ...are made publicly-accessible on the web. Blogs ...ically contain text in the form of a "blog post", ...r the ability for readers to comment or provide ...dback, contain archives to past blog posts, and ... to other blogs and bloggers. Blogs are inherently ...ferent from personal home web pages. First, ...ggers post entries through manual software, such ... a web browser, or automatic software, which is ...nloaded from Internet and used to instantly ...blish content to web. Therefore, bloggers do not ...ed to understand HTML or other web ...gramming languages to maintain their blogs. ...cond, the resulting blog page resembles a ...sonal diary, with entries sorted by time and date, ...uch stricter format than personal web pages of

NEED AND SIGNIFICANCE THE STUDY

Blogging provides a new interaction opportunity and an easy means to reach out to people. It opens a new door to share and access information from around the world. It is a wide sharing space, where anyone can share his/her thoughts. Blogs are an increasingly accepted instructional technology tool. Blogs can be used for reflection about classes, careers, or current events; they can also capture and disseminate student and faculty-generated content. RSS feeds make blog content accessible through newsreaders, allowing bloggers to increase the sharing of this information among interested individuals. Blog offers Scholars, faculty, staff, and others a high level of autonomy while creating a new opportunity for interaction with peers. Blogs provide a forum for discussion that goes beyond coursework to include culture, politics, and other areas of personal exploration.

Although weblogs and wikis are considered to be one of the best ways of combining Information Communication Technology (ICT) with teaching and learning methodologies in a classroom, the application of blogs and wikis in higher education, particularly in teachers' preparation programs, has been documented very recently. The majority of teachers are neither familiar, nor skilful in employing this tool in the process of learning. Exposure to this tool during pre-service and in-service preparation program is thought to be helpful in promoting willingness to use it in teaching career. So, the investigator has selected the topic "Effectiveness of

Blogs in Learning Educational Psychology among Master of Education students".

OBJECTIVES

1) To design and develop Blogs for the selected content in Educational Psychology.

2) To find out the effectiveness of the Blogs in learning of Educational Psychology of prospective teacher educators.

3) To compare the pre-test scores of control group and experimental group.

4) To compare post-test scores of control group and experimental group.

5) To compare the gain score of the control and experimental group.

HYPOTHESES

1) There is no significant difference between pre-test scores of control and experimental group students.

2) There is no significant difference in the post-test scores of control and experimental group students.

3) There is no significant difference between control and experimental group students in their gain scores.

DESIGN OF THE STUDY

Quasi experimental Non-randomized (intact) control group pre-test design is used for this study.

In this experimental method, two groups of subjects are selected. One of the equivalent groups serves as the control group in which the subjects are taught by traditional method. The other group serves as the experimental group in which the subjects are taught using the blog.

DEVELOPMENT OF BLOG

Development of blog consists of two parts. The parts are given below.

PART I - FRAMING OF OBJECTIVES

Framing of objectives is the most important step in the preparation of Blog Production. The instructional objectives should be clearly enunciated in terms of behavioral outcomes as each objective sets its own specification of behavior, which should result in the student. The list objectives framed in the blogs module areas namely in Educational Psychology syllabus at Master of Education Level.

PART II - DEVELOPMENT OF BLOG

A much better approach to the design and development of Blog instruction is the 'integrated e-learning approach', Due to the time and technological factor the researcher is to make only a text blog. This approach usually follows a sequence of message design, which is summarized as follows:

Creating blogger blog → name the Blog → Choose template → post

Creating Blogger Blog

1. First go to http://www.blogger.com website and create a own blog

2. Click on Create Your Blog Now.

In this blog creation steps consists of the following, Choose a User Name, Enter a password (must be at least 6 characters), Retype password (enter the same password), Display Name (This is the name that will display on your blog posts and comments), Email Address (email address) and Acceptance of Terms. Finally the researcher to check this entire box, then click Continue.

NAMING THE BLOG

The step consists of four parts. The parts are given below.

a. Blog Title –Give blog a title like personality-sivakumar. This should be a descriptive title that means something.

b. Blog Address – type in what you want the URL to be like rajankumarresearch.blogspot.in. All Blogger blogs have a unique address.

c. Word Verification – this is a Turing Test to deter misuse. Type in the characters you see.

d. Click Continue.

CHOOSE A TEMPLATE

Anybody need in anything in a variety way [illegible] like the same color [illegible] decoration. In this mean, Blogger has a variety of [illegible]. Scroll down and view them all (you can [illegible] preview template to get a bigger view), [illegible] choose the one you want by clicking in the [illegible] circle. (You can change the template later [illegible] wish). After the selection of template screen [illegible] click continue option. And then the blog is [illegible] created.

THE BLOG MATERIALS

This post of blog step consist of the [illegible] parts. The parts are given below.

a. Title – Give the post a descriptive title [illegible] personality-and-sigmund-freud-theory / [illegible] as-and-eriksons-theory /

b. Body – Type the body of the post in the [illegible] If you're on a PC using Internet Explorer, [illegible] also have some "rich text" buttons for some [illegible] formatting options. (You can also type html tags/ if [illegible] know them). There are also keyboard shortcuts [illegible] will work in some browsers:

c. Comments – decide whether you want [illegible] enable comments on this post (more on comments [illegible])

d. Time and Date – change the time and [illegible] of the post if you'd like.

e. Choose to save the post as a Draft, or [illegible] Publish the Post.

f. You should get a confirmation page. [illegible] the blog now if you'd like (choose in a new window this time, as we're going to want to come back to this page in a minute).

TREATMENT

The Experimental group of 25 prospective teacher educators was taken to the computer lab. These scholars were taught with Blog way of instruction. Corrective feedback was given wherever necessary. When any point was not learnt additional time was given and also the media material screened once again wherever necessary.

TOOL USED

Test in Educational Psychology at Master of Education level (pre and post test)

(Constructed and Validated by the investigator)

SAMPLE

The investigator selected 50 prospective teacher educators from Senthil college of Education, Virudhachalam in Cuddalore district affiliated to Tamilnadu Teacher Education University for the study. According to the scoring of pre-test, 25 students were chosen as control group and 25 students were chosen as experimental group.

STATISTICAL TECHNIQUES USED

t values were calculated to test the significant difference between the mean scores of sub variables.

Hypothesis -1

[illegible]re is no significant difference between pre-test scores of control and experimental group Students.

Table- 1

Difference between Pre-test Scores of the Control and Experimental Group Students

Group (N =22)	N	Mean	S.D	t value	Level of Sig.
[illegible]ntrol Group	25	12.00	1.94	0.10	Not Significant
Experimental Group	25	11.91	2.30		

[illegible]% level of significance the table value of 't' is 2.05)

s inferred from the above table that there ficant difference between pre-test scores group and experimental group students. That is, the experimental group students and control group students have more or less equal mean scores in their pretest.

Hypothesis - 2

s no significant difference between post-test scores of control and experimental group students.

Table - 2

ifference between Post-test Scores of the Control and Experimental Group Students

Group (N =22)	N	Mean	S.D	t value	Level of Sig.
Control group	11	26.73	3.60	3.96	Sig. at 0.05 level
Experimental group	11	32.09	2.66		

t 5% level of significance the table value of 't' is 2.05)

It is inferred from the above table that there s significant difference between post-test scores of control group students and experimental group students. That is, the experimental group students are better than the control group students in their post test scores. Hence, the developed blog is effective for the M.Ed., students.

Null Hypothesis -3

There is no significant difference between control and experimental group students in their gain scores.

Table - 3

Difference between Control and Experimental Group Students in their Gain Scores

Group (N =22)	N	Mean	S.D	t value	Remarks at 5% level
Control group	11	14.73	3.25	3.67	Significant
Experimental group	11	20.18	3.68		

(At 5% level of significance the table value of 't' is 2.05)

It is inferred from the above table that there is a significant difference between control and experimental group students in their gain scores. That is, the experimental group students are better than the control group students in their gain scores. Hence, the developed blog is effective for the M.Ed., students.

FINDINGS

1. There is no significant difference between pre-test scores of control and experimental group students.

2. There is a significant difference in post-test scores of control and experimental group students.

3. There is a significant difference between control and experimental group students in their gain scores.

DISCUSSION

The t test result shows that the experimental groups Students are better than the control group Students in the gain scores. This may be due to the

e Blog is effective in teaching
rch Education for the Master of Education
nts. Since the Blog is developed by using
ial templates and different font color. The
ation is attractive. So the student's attention
wn in the topic to be learnt.

NCLUSION

The study revealed that Blog is very effective
aching educational psychology for prospective
her educators.

Hence auto-instructional materials like Blog
erial and e-Learning material can be developed
he teachers and lecturers as a set of activities
pal to the syllabus, textbooks and curriculum
pieces.

School teachers and college lecturers can
given orientation on how to develop blog and
odule package.

As the teachers become the agency to
rdinate and synchronies the materials offered
ugh a different media like computer, the teacher
ucation courses and strategies need to be re-
signed to this function. Relevant courses to
rease the awareness and application of computer
o be introduced for teacher educators and their
dents.

In-service courses are to be organized by
Extension services Department and Department
Education to orient the teachers and lecturers
wards blogging.

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Logical Mathematical Intelligence in Physics: A Study among Secondary School Students

• Binitha Das .D.B

ABSTRACT

The world is marching towards prosperity in this century because of the scientific and technological revolution. While studying Physics, pupils develop Multiple Intelligences. Among these Multiple Intelligences, the investigator took up Logical-Mathematical Intelligence for a deep study. The tools used for the study were Logical - Mathematical Intelligence Test and Standardized SES Scale.The tools were administered to 725 Secondary School students in various schools in Thiruvananthapuram District. The data were analysed statistically usingt-test, ANOVA and Scheffé test of post hoc comparison.From the study, it was found that the extent of realization of Logical Mathematical Intelligences was only moderate level.

INTRODUCTION

The world is marching towards prosperity in this century because of the scientific and technological revolution. Today the educational system makes the children more informed and skilled. So it is apparent that the capabilities of the students must be developed so that they can be able to develop immense potentialities.

Logical-Mathematical Intelligence is characterized by scientific reasoning, a love for abstraction, and an interest in mathematical operations. Children use logics, deduction, reasoning, and become good problem solvers. In Gardner's words (1999), it entails the ability to detect patterns, reason deductively and think logically. This intelligence is most often associated with scientific and mathematical thinking. The subject Physics helps in developing Logical Mathematical intelligence. The teaching of physics develops the capabilities such as (a) doing controlled experiments (experimenting) (b) questioning (c) performing complex mathematical calculations (d) measuring (e) solving puzzles (f) collecting data (g) classifying (h) critical thinking (i) manipulation (J) coding, etc.

NEED AND SIGNIFICANCE OF THE STUDY

Active and meaningful Physics learning involves solving puzzles, experimenting, visualizing, interpreting, discussing, group work, etc. While studying Physics, pupils develop Multiple Intelligences. Among these Multiple Intelligences, the investigator took up Logical-Mathematical Intelligencefor a deep study .No attempt has been made so far to study the extent of realization of the Logical Mathematical intelligence of students. Do the Secondary school students possess adequate level of Logical-Mathematical intelligence? Do gender, locality, type of management of the institution, medium of instruction and Socio-economic status influence the Logical-Mathematical Intelligence of Secondary school students? Is there any significant relationship between Logical Mathematical intelligence and achievement in Physics of Secondary school students? To find out answer to these questions the study has been undertaken.

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OBJECTIVES

1) To find out the extent of realization of Logical-Mathematical Intelligence of Secondary School students in relation to Physics.

2) To compare the extent of realization of Logical-Mathematical Intelligence of Secondary School students in relation to Physics based on (a) Gender (b) Locality, (c) Type of Management, (d) Medium of Instruction and (c) Socio- Economic status.

HYPOTHESES

1) Majority of the students in Secondary Schools have high Logical-Mathematical Intelligence in relation to Physics.

2) There will significant difference in the extent of realization of Logical-Mathematical Intelligence of Secondary School students in relation to Physics based on (a) Gender (b) Locality, (c) Type of management, (d) Medium of instruction and (c) Socio- Economic status.

METHOD

The investigator adopted the Normative Survey method for the present study.

SAMPLE

The population for the study consisted of Secondary School students in Kerala. For the present study, the investigator selected 725 Secondary School students (studying in Standard IX) in Thiruvananthapuram District. Due representation was given to Gender, Locale, Type of Management of the school, Medium of Instruction and Socio-Economic status.

TOOLS USED

The Tools used for the collection of data were

1. Logical -Mathematical Intelligence Test developed by the investigator
2. A Standardized SES Scale

STATISTICAL TECHNIQUES USED

The statistical techniques used were t-test,ANOVA, and Scheffé test of post hoc comparison

RESULTS AND DISCUSSION

Extent of Realization of Logical Mathematical Intelligence of Secondary School Students

The extent of realization of Logical Mathematical Intelligence of secondary school students is given in Table 1.1.

Table 1.1

Extent of Realization of Logical Mathematical Intelligence of Secondary School Students

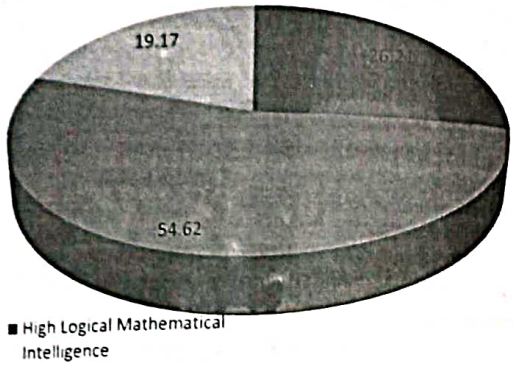
Extent of Realization of Logical Mathematical Intelligence	No.	%
High Logical Mathematical Intelligence	190	26.21
Average Logical Mathematical Intelligence	396	54.62
Low Logical Mathematical Intelligence	139	19.17
Total	725	100

Table 4.1 shows that 26.21% students possess high Logical Mathematical Intelligence, 54.62% of students have average Logical Mathematical Intelligence and 19.17%students possess low Logical Mathematical Intelligence.It indicates that majority of(54.62%) of the students possess an average Logical Mathematical Intelligence.

The graphical representation of the extent of Logical Mathematical Intelligence is given in Fig. 1.1

Fig. 1.1

Extent of Logical Mathematical Intelligence of Secondary School Students



Comparison of Logical Mathematical Intelligence of Male and Female Students

The scores obtained by male and female students were compared by using test of significance of difference between means and the obtained t-value was tested for significance. The data and result of the analysis are given in Table 1.2.

Table 1.2

Data and Results of the Test of Significance of the Difference between Means of the Logical Mathematical Intelligence Scores of the Male and Female Students

Group	N	Mean	SD	t-value
Male	312	41.24	3.08	0.18
female	413	41.28	2.99	

Table 1.2 reveals that the t value obtained is not significant at 0.05 level. This shows that the male and female students do not differ significantly in their Logical Mathematical Intelligence (t=0.18;p>0.05).

Comparison of Logical Mathematical Intelligence of Rural and UrbanStudents

The scores obtained by Rural and Urban students were compared by using test of significance of difference between means and the obtained t-value was tested for significance. The data and result of the analysis are given in Table1.3.

Table 1.3

Data and Results of the Test of Significance of the Difference between Means of the Logical Mathematical Intelligence Scores of the Rural and Urban Students

Group	N	Mean	SD	t-value
Rural	412	41.31	2.99	0.50
Urban	313	41.20	3.07	

Table 1.3shows that the t-value obtained is ...ificant at 0.05 level. This shows that the urban ...al students do not differ significantly in their ...al Mathematical Intelligence (t=0.50;p>0.05).

The mean scores obtained by the three groups (govt., aided, and unaided) were compared using the technique of Analysis of Variance(ANOVA) and the obtained F value was tested for significance. The results of the analysis are given below.

Table 1.4

Summary of ANOVA of the Logical Mathematical Intelligence Scores of the students based on Type of the Management

Source	Sum of scores	df	Mean square	F-value
...ween groups	2.749	2	1.374	0.15
...hin Groups	6631.093	722	9.184	
...al	6633.842	724		

...e value of F

F(2,749) at 0.05 Level = 3.01

F(2,722) at 0.01 level = 4.65

It can be seen from the table that the ...ined F- value (F=0.15) is not significant even ...05 level as the Table value for df 2,722 at 0.05 ...is 3.01. This shows that there is no significant ...ference between the students in their Logical ...ematical Intelligence based on the type of ...ol. This means that type of management of ...ol does not have any influence on the Logical Mathematical Intelligence of secondary school students.

Comparison of Logical–Mathematical Intelligence of Malayalam and English Medium Students

The scores obtained by Malayalam and English medium students were compared by using test of significance of difference between means and the obtained t-value was tested for significance. The data and result of the analysis are given in Table1.5.

Table 1.5

...a and Results of the Test of Significance of the Difference between Means of the Logical Mathematical Intelligence Scores of the Malayalam and English Medium Students

Group	N	Mean	SD	t-value
...layalam	364	41.26	2.99	0.02
...glish	361	41.26	3.06	

Table 1.5 reveals that the t value obtained ...s significant even at 0.05 level. This showsthat ...Malayalam and English medium students do not differ significantly in their Logical Mathematical Intelligence (t=0.02;p>0.05).

Table 1.6

Summary of ANOVA of the Mean Logical Mathematical Intelligence of High Average and Low SES Groups

Source	Sum of squares	df	Mean square	F
...ween groups	5424.072	2	2712.036	1618.56**
...hin Groups	1209.770	722	1.676	
...al	6633.842	724		

Table value of F

F(2,722)at 0.05 Level=3.01

F(2,722) at0.01 level=4.65

Table 1.6 reveals that there is significant difference in the Logical Mathematical Intelligence scores of the three groups as obtained F-Value is significant (F=1618.56; p < 0.01).It means that Logical Mathematical Intelligence of the students belonging to three different groups is not similar.However, the result doesnot help to identify exactly the pairs of groups which differ significantly. In order to overcome this,it was decided to apply Scheffé Test of Post hoc comparison.

The Scheffé test is closely linked with ANOVA and requires only the F table in the performing computations .The result of the analysis done in this regard is given in the Table 1.7.

Table 1.7

Comparison of Logical Mathematical Intelligence of Secondary School Students belonging to High, Average, Low SES Groups

Groups compared	Mean difference (I-J)	95% confidence interval	
		Lower bound	Upper bound
Between students of high and average SES	3.86*	3.57	4.16
Between students of high and low SES	8.20*	7.84	8.55
Between students of average and low SES	4.33*	4.04	4.63

*Significant at 0.05 level

For comparing the Logical Mathematical Intelligence of students belonging to high and average SES, the mean difference between these groups was computed. The obtained mean difference is significant (mean difference = 3.86; p<0.05). This shows that there is significant difference between students belonging to high SES and average SES in their Logical Mathematical Intelligence.

Similarly, the Logical Mathematical Intelligence of students belonging to high and Low SES were also compared. The obtained mean difference revealed that there is significant difference in Logical Mathematical Intelligence of students belonging to high and low SES (mean difference=8.20;p<0.05).

When the Logical Mathematical Intelligence of the students belonging to average SES and low SES were compared,significant difference was observed between these groups in their Logical Mathematical Intelligence (mean difference =4.33;p<0.05).This reveals that students belonging to average SES and low SES differ significantly in their Logical Mathematical Intelligence.

The obtained mean value shows that students belonging to high SES(M=41.40)have higher Logical Mathematical Intelligence compared to students belonging to low SES (M=37.07). This indicates that Socio Economic Status has significant influence on the Logical Mathematical Intelligence of secondary school students.

FINDINGS

The major findings of the present study are given below.

1. Majority of (54.62%)the students possess average level Logical Mathematical Intelligence.

2. There is no significant difference in the Logical Mathematical Intelligence of male and female students (t=0.18; p>0.05).

3. There is no significant difference in the Logical Mathematical Intelligence of urban and rural students (t = 0.50; p > 0.05).

4. There is no significant difference in the ...al Mathematical Intelligence of government, ...d and unaided school students (F = 0.15; ...0.05).

5. There is no significant difference in the ...al Mathematical Intelligence of Malayalam and ...sh medium students (t = 0.02; p > 0.05).

6. There is significant difference in the ...al Mathematical Intelligence of high, average ... low SES students (F =1618.56; p< 0.01).

7. There is significant difference in the ...al Mathematical Intelligence of high and low ...S students (mean difference = 8.20; p < 0.05).

8. There is significant difference in the ...al Mathematical Intelligence of average and ... SES students(mean difference = 4.33; ...0.05).

...NCLUSIONS

From the study, it was found that the extent ...alization of Logical Mathematical Intelligences ... only moderate. One of the major constraints in ...ying the changes conducive for enhancing the ...al Mathematical Intelligence is overcrowded ...sroom. Education is now a global process and ...ucation should encompass a variety of methods ...der to reflect children's different learning styles" ...erstein, 1999, p. 18). The only way to do this ...derstand and accept the power and potential ...ltiple Intelligences (MI) to change the ways in ...ch the students can think, analyze, and learn. ...rber's MI theory therefore represents the most ...tive platform for 21st century global educational ...structional methodologies and those educators ...embrace this perspective will find themselves meeting and surpassing stakeholders' demands for accountability in the classroom and education.

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Blending Inverted Classroom Strategies for Enhancing Achievement in Mathematics among the Secondary Teacher Education Students

• Dr. Thiyagu K.

ABSTRACT

The present study tries to find out the effectiveness of inverted classroom strategies in learning mathematics among secondary teacher education students. The study was conducted to develop a Video lesson for the methods of teaching mathematics and experimenting the same with a set of students studying for B.Ed., and finding out its effectiveness over the conventional method of teaching. Two equivalent group experimental-designs are employed for this study. The investigator has chosen 46 B.Ed. students for the study. The study revealed that there was significant difference between control and experimental group students in their gain scores and for attainment of knowledge, understanding, and application objectives.

INTRODUCTION

Invert teaching (or inverted classroom or flipped classroom) is a form of blended learning in which students learn new content online by watching video lectures, usually at home, and what used to be homework (assigned problems) is now done in class with teacher offering more personalized guidance and interaction with students, instead of lecturing. This is also known as backwards classroom, reverse instruction, flipping the classroom and reverse teaching. The notion of a inverted classroom draws on such concepts as active learning, student engagement, hybrid course design, and course podcasting. The value of a inverted class is in the repurposing of class time into a workshop where students can inquire about lecture content, test their skills in applying knowledge, and interact with one another in hands-on activities. During class sessions, instructors function as coaches or advisors, encouraging students in individual inquiry and collaborative effort.

NEED FOR THE STUDY

There is no single model for the inverted classroom—the term is widely used to describe almost any class structure that provides prerecorded lectures followed by in-class exercises. In one common model, students might view multiple lectures of five to seven minutes each. Online quizzes or activities can be interspersed to test what students have learned. Immediate quiz feedback and the ability to rerun lecture segments may help clarify points of confusion. Instructors might lead in-class discussions or turn the classroom into a studio where students create, collaborate, and put into practice what they learned from the lectures they view outside class. The main aims of teaching mathematics are to develop the power of abstract thinking and reasoning among the students. The traditional method fails to draw the total attention of the learner towards learning mathematical skills and abilities. In order to overcome these practical difficulties, we could adopt the technique flip teaching for instructing

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matics. Flip teaching technique
teachers to retain their attention during
room. This will provide opportunities for
student to learn at their own pace as easy
ible. So the investigator selected the topic
veness of invert teaching to enhance
matics learning among the secondary teacher
on students.

JECTIVES

1. To develop the inverted teaching
gies for secondary teacher education students.

2. To find out whether there is any significant
rence between pre-test and post-test scores
control group in their attainment of knowledge,
rstanding and application objectives.

3. To find out whether there is any significant
rence between pre-test and post-test scores
experimental group in their attainment of
wledge, understanding and application
ctives.

4. To find out whether there is any significant
rence between pre-test and post-test scores
ntrol and experimental group students.

5. To find out whether there is any significant
rence between control and experimental group
n gain scores.

6. To find out whether there is any significant
rence between control and experimental group
n gain scores for attainment of knowledge,
rstanding and application objectives.

OTHESES

1. There is no significant difference between
st and post-test scores of control and
rimental group students.

2. a) There is no significant difference
en pre-test and post-test scores of the control
students in their attainment of knowledge,
rstanding and application objectives.

b) There is no significant difference between
st and post-test scores of the experimental
students in their attainment of knowledge,
rstanding and

3. There is no significant difference between control and experimental group students in their gain scores for attainment of knowledge, understanding and application objectives.

4. There is no significant difference between control and experimental group students in their gain scores.

METHOD

Experimental method was used for the study. Equivalent group experimental-designs are employed for this study.

SAMPLE

The sample for the study consisted of 46 B.Ed. students studying mathematics as an optional subject from two different colleges of Education at Kasaragod District, Kerala. .

TOOLS USED

The following are the tools used for the present study.

1. Video lesson developed by the investigator for the methods of teaching mathematics for secondary student teachers. Flip teaching strategies of the specified Mathematics content of Kannur University syllabus.

2. An achievement test in mathematics constructed and validated by the researcher.

STATISTICAL TECHNIQUES USED

The following statistical techniques were used in the study:

Mean and standard deviation

t test for determining the significance of difference between means of two sub-groups.

RESULT AND DISCUSSION

Hypotheses 1

There is no significant difference between pre-test scores of control and experimental group students.

Table - 1

Difference between pre-test scores of the Control and Experimental Group Students.

Group / Test (N = 23)	Control group		Experimental group		Calculated t value	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Pre-test	13.96	2.34	13.96	2.80	0.01	*Not Sig.

The result in the above table shows that the control group and experimental group do not differ significantly in their pre-test scores. It reveals that both the groups are more or less same in their maths achievement.

Hypotheses 2

There is no significant difference between post-test scores of control and experimental group students.

Table - 2

Difference between post-test scores of the Control and Experimental Group Students.

Group / Test (N = 23)	Control group		Experimental group		Calculated t value	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Post-test	17.30	2.16	22.43	3.05	6.57	*Sig.

(At 5% level of significance the table value of 't' is 1.96)

Hypothesis 3

There is no significant difference between control and experimental group students in their gain scores.

Table - 3

Difference between Control and Experimental Group Students in their Gain Scores

Group	Mean	S.D	Calculate t value	Remarks at 5% level
Control group	3.35	1.67	6.36	*Significant
Experimental group	8.48	3.49		

(*At 5% level of significance the table value of 't' is 1.96)

It can be inferred from the above table that there is significant difference between the control and experimental group students in their gain scores. That is, the experimental group students are better than the control group students in their gain scores. Hence, the developed flip teaching strategies is effective for the secondary grade teacher trainees.

Hypothesis 4

There is no significant difference between control and experimental group students in their gain for attainment of knowledge, understanding and application objectives.

Table - 4

Difference between Control and Experimental Group Students in their Gain Scores for Attainment of the Objectives

Objectives	Control group		Experimental group		Calculated t value	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Knowledge	1.65	1.30	3.30	1.58	3.87	*Significant
Understanding	1.78	1.28	3.13	1.79	2.93	*Significant
Application	1.04	0.82	2.13	1.25	3.47	*Significant

(*At level of significant the table value't' is 1.96)

It is inferred from the above table that there is significant difference between control and experimental group students in their gain scores for attainment of knowledge, understanding and application objectives.

There is significant difference between post test scores of control group students and experimental group students. Experimental group is higher on post test compared to control

INTERPRETATIONS

The 't' test result shows that the experimental group students are better than the control group students in the gain scores. This may be due to the fact that Flip teaching strategies is effective in teaching Mathematics Education for the secondary teacher trainees. The teaching strategies of flip teaching are more attractive than the lecture method. So the learner's attention is drawn in the topic to be learnt.

The 't' test result also shows that the experimental group students are better than the control group students in attainment of knowledge, understanding and application level objectives in the gain score. This may be due to the fact that Flip teaching strategies has motivated the students to understand the concepts of Mathematical Education. The teaching stuff the fresh minds of experimental group students very sharply. So the experimental group is better than control group in attainment of knowledge, understanding and application objectives.

CONCLUSION

As the inverted class becomes more popular, new tools may emerge to support the out-of-class portion of the curriculum. In particular, the ongoing development of powerful mobile devices will put a wider range of rich, educational resources into the hands of students, at times and places that are most convenient for them. Greater numbers of courses are likely to employ elements of the inverted classroom, supplementing traditional out-of-class work with video presentations and supporting project-based and lab-style efforts during regular class times. At a certain level of adoption, colleges and universities may need to take a hard look at class spaces to ensure they support the kinds of active and collaborative work common in inverted classes. The inverted classroom is a strategic direction that helps higher education meet the expectations of today's students while optimizing teaching and classroom resources. The blended learning approach of the inverted classroom can be leveraged for both individual courses and on an organizational level to improve instructional delivery and enhance student achievement and satisfaction.

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Research Colloquium Philosophy as a foundation for Quality Research

oseph Kacharayil

RACT

This paper focuses on the Research quium as a Quality Concern in Research. The rch colloquium, organized as an academic y intends to enhance the quality in the research ses. This practice has a high value impact on research oriented activities of the ution. Research colloquium is scaffolding for a rmative learning experience. Research quium offers research students an opportunity n the skills and methodologies of applied and/ research while exploring an area of personal st. Research scholars work closely with faculty bers to generate ideas, create research osals, conduct research, prepare a professional rch paper, and present their findings. They gain e-end experience collecting data, conducting yses, and presenting findings. Students who icipate in the colloquium learn skills that are rtant for furthering their research. Regular icipation and presentation in the research quium helps to enhance the effectiveness in ms of quality of research work

RODUCTION

The research centres or educational utions organized the research colloquium as an demic activity intends to enhance the quality in research activities. This practice has a high value act on the research oriented activities of the ution. Continuous review of the progress of the research work has become necessary to enhance the institutional effectiveness in terms of quality of research work

COLLOQUIUM

Definition of colloquium can be varied in accordance with the goal, aim, nature, purpose, objectives and institutional context. The various definitions used in different contexts are given below;

1. An informal meeting for the exchange of views.

2. An address to an academic meeting or seminar

3. An academic seminar on a broad field of study, usually led by a different lecturer at each meeting.

4. An academic meeting or seminar usually led by a different lecturer and on a different topic at each meeting.

5. An academic meeting at which specialists deliver addresses on a topic or on related topics and then answer questions relating to them.

RESEARCH COLLOQUIUM

Research colloquium is one of the major activities done intermittently during the research process by the researchers in order to enhance the quality of their research. The term research colloquium is a variation of the general term colloquium which means a usually academic meeting at which specialists deliver addresses on a topic or

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on related topics and then answer questions relating to them. The origin of the term is from the Latin word 'colloquy' and its first known use was in 1844. Another meaning of the term includes an informal meeting for the exchange of views. Research colloquium is the type of colloquium at which the results of (scientific) research are reported.

SCOPE OF RESEARCH COLLOQUIUM

Research colloquium is conducted for presenting the topic and the progress of the research work which includes research proposal, tool construction, data collection, analysis of data and research reporting. The research colloquium offers the researchers an opportunity to know about the skills and methodologies of research conducted or being conducted by others. Students with the help of their supervising teachers generate ideas, create research proposals, conduct research, prepare a professional research paper and present their findings. This will help the young researchers and faculty members who guide them have a friendly discussion and consultation with each other.

The main objectives of the research colloquium are the following:-

1) To support research, scholarship and creative work of the young researchers

2) To provide a platform for the researchers to share their ideas and results of their studies with the academic community

3) To create an environment for free exchange of ideas between the researchers and the authorities in the area of their study

4) To discuss and reflect on the advanced level research activities

5) To develop modern and multidisciplinary research ideas

6) To help the researchers to improve their quality of work by receiving feedback from the experts in the field

7) To help researchers gain confidence in reporting their research work. This will be useful in their further research work also.

8) To help the researchers get an idea about the recent developments in their research areas from the experts

9) To improve the critical thinking ability of the faculty and the other members who give feedback to the presenters

10) To encourage and/or inspire other faculty members, administrators, and non-teaching personnel to undertake their own researches.

11) To encourage others to take up research

12) To improve the research related resources in the institution where the colloquium is conducted

13) To publish research results presented at the colloquium.

14) To enhance the intellectual property of the institution by collecting the presented ideas in electronic or printed format

NEED AND SIGNIFICANCE OF RESEARCH COLLOQUIUM

The research colloquium is important for researchers as it helps them to present their views in front of experienced researchers. They can present their research projects, report on the progress of their work, and discuss research-related questions relevant to their study in the research colloquium conducted. The colloquium provides a forum for the acquisition of academic professionalism in that one practices communicating the results of one's work and develops skills for dealing with and processing critical, subject-related questions and remarks. The feedback they gained from such a process will aid them in correcting their mistakes and there by improve the quality of their research process.

HOW TO ORGANIZE A RESEARCH COLLOQUIUM

Colloquium is an academic conference/ seminar (where individuals do conversation about a particular topic or issue); but is mainly used for a meeting of researchers where they present the progress of their works and discuss the issues which

...It is more cust... term for such a monthly or bimonthly meeting ...n scholars.

The research colloquia offers students an ...rtunity to learn the skills and methodologies of ...ied and/or basic research while exploring an ...of personal interest Students work with a ...ch member to generate ideas, create research ...posals, tool construction, conduct research, data ...ection, analysis of data, present their findings ...research reporting. It helps the scholar to learn ...w to prepare a research paper for presentations ...d publications.

There are many variations of the way in ...ch colloquia are conducted by different ...utions.

1. There are colloquia conducted as a ...ference in certain institutions while in some other ...titutions it is specifically organized for the research ...munity. They conduct it as institute colloquium ...general research colloquium. In the institute ...lloquium an eminent scholar is invited and delivers ...expert speech. This gives opportunity for the ...dents to get more ideas and innovations in ...erent areas of research.

2. In the case of research colloquium ...archers are instructed to prepare a report on ...research work and they have to present it before ...experts. After the presentation there will be ...cussion on the work presented and the experts ...comment on this. This feedback about one's ...earch work helps the researchers in their future ...rk. Also there will be expert talk on the recent ...elopments in the research field.

3. In some institutions research supervisors ...anise research colloquium in which doctoral ...didates are expected to attend the meeting, which ...ost cases will take place every two weeks, on ...gular basis and present their PhD projects. The ...toral candidates present their research projects, ...rt on the progress of their work, and discuss ...questions relevant to their doctoral theses in the research colloquium. This will act as a forum for the acquisition of academic professionalism in that one practices communicating the results of one's work and develops skills for dealing with and processing critical, subject-related questions and remarks.

CONCLUSION

The colloquium philosophy is a foundation for quality research. The research colloquium experience provides cohesion and connection to the process of acquiring a doctorate. As such, the colloquium establishes a critically important component of the quality concern in doctoral work. Research colloquium is scaffolding for a transformative learning experience. Research colloquium offers research students an opportunity to learn the skills and methodologies of applied and/ or basic research while exploring an area of personal interest. Research scholars work closely with faculty members to generate ideas, create research proposals, conduct research, prepare a professional research paper, and present their findings. They gain first-hand experience in collecting data, analysis, and presenting findings. Students who participate in the colloquium learn skills that are important for further research.

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A Study on Life Skills of Prospective Teachers

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. Seelatha S.

RACT

In this study, the investigators made an pt to study the life skills of prospective ers in Kanyakumari district. The objectives of udy were, to find out the level of life skills of pective teachers and to find whether there is gnificant difference in life skills of prospective ers with respect to their sex, locale, and subject ocalization. Normative Survey method was ed for the present study. The population for resent study consisted of prospective teachers ing in Colleges of Education in Kanyakumari ct. Using simple random technique, the esignor selected a sample of 400 student hers. The findings revealed the majority of the pective teachers seem to have average level of kills. It was also found that significant difference ed between male and female, urban and rural pective teachers in their life skills. It was also nd that there existed significant difference ween science and humanities subjects pective teachers in their life skills.

TRODUCTION

Life Skills are psycho-social abilities that ble individuals to translate knowledge, attitude d values regarding their concerns into well ased and healthy behaviours. Life Skills include sic-social competencies and interpersonal skills help people make informed decisions, solve blems, think critically and creativily, communicate ectively, build healthy relationships, emphathise with others and manage their lives in a healthy and productive manner. Learning and practising life skills help students to improve their personal and social qualities such as self esteem, compassion, respect, confidence etc.

NEED AND SIGNIFICANCE OF THE STUDY

Prospective teachers undergoing B.Ed programme have to continuously deal with adolescents. Adolescence is the transition period where adolescents face problems of various kinds such as facial competitive examinations, interpersonal conflicts skills etc. The stress experienced by the adolescents is reflected in raising suicide rates and growing crimes among them. So it becomes the need of the hour to provide todays adolescents a set of skills to deal with the demand of life. But to help students develop life skills the prospective teachers should be aware of the importance of life skill and have a positive attitude towards it. A teacher needs to avoid presenting learners with stressors. In this aspect the teacher is guided on ways of coping with stress and developing learners' ability to cope with stress. Adolescents should get opportunities to experience the realities and crises in life from their classrooms itself, to develop such necessary skills. Hence, teachers should be able to locate issues and instances which are suitable to the curricular content from their daily life, beliefs, rituals and conventions. Hence the

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challenging task before the [illegible] to identify such activities relevant to their subjects and integrate them in their classroom. When an individual becomes competent enough to take socially acceptable and valid right decisions in crises, then only the educational system mould them becomes really skill based. Hence the researcher decided to study the level of life skills in prospective teachers.

OBJECTIVES

1) To study the level of life skills of prospective teachers.

2) To compare the life skills of prospective teachers with respect to sex, locale and subject specialization.

HYPOTHESIS

There exists no significant difference in the mean scores of life skills of (a) male and female (b) urban and rural (c) science and humanities prospective teachers.

Normative survey method was adopted for this study.

SAMPLE

The present study was conducted on a sample of 400 prospective teachers from various colleges of education in Kanyakumari district using random sampling technique. The prospective teachers selected differed in their sex, locale of the institution and subject of specialization.

TOOL USED

Life Skill Scale (Deepthi and Sreelatha 2015)

STATISTICAL TECHNIQUES

Percentage, arithmetic mean, standard deviation and t test were used.

RESULTS AND DISCUSSION

Table.1

Percentage wise distribution of life skills of prospective teachers.

Variable	Level	Count	Percent
Life skill	Low	66	16.50
	Medium	266	66.50
	High	68	17.00

The results given in the above table revealed that majority of the prospective teachers (66.50%) have moderate level of life skills. Hence the level of life skills of prospective teachers in Kanyakumari district is moderate.

Table.2

Comparison of life skills of male and female prospective teachers

[illegible]ensions	Gender	Mean	SD	N	t	P
[illegible]e skill	M	188.20	23.22	190	3.823	0.000
	F	198.55	30.71	210		

The calculated t value (t- 3.823, P < 0.01) [illegible]ficant at 0.01 level. Hence the null hypothesis [illegible] exists no significant difference in this mean [illegible] of life skills of male and female prospective [illegible]ers" is rejected. It shows that there exists [illegible]ficant difference between male and female [illegible]ective teachers in their life skills. That is life [illegible] prospective teachers statistically differ with [illegible]gender. The mean value shows that female prospective teachers posses more life skills when compared to male prospective teachers.

The present results are in line with the results of Sibichen, Anisha and Gopalakrishnan (2010) which indicates that there is significant difference between male and female secondary teacher education students in their life skills and is in contradiction with that of Sandhu (2014) which revealed no gender difference in life skills.

Locale wise comparison of life skills of prospective teachers.

Table.3

Comparison of life skills of urban and rural prospective teachers

Variable	Locality	Mean	SD	N	t	P
Life Skills	Urban	200.37	29.74	123	3.117	0.002
	Rural	190.65	26.49	277		

The calculated t value (t- 3.117, P < 0.01) [illegible]ficant at 0.01 level. Hence the null hypothesis [illegible] exists no significant difference in the mean [illegible] of life skills of urban and rural prospective [illegible]rs" is rejected. It shows that there exists [illegible]ficant difference between urban and rural [illegible]ective teachers in their life skills. That is life skill of prospective teachers statistically differ on the basis of their locality. The mean value shows that urban prospective teachers posses more life skills when compared to rural prospective teachers. The present results are in contradiction with that of Sandhu (2014) which revealed no significant difference in life skills of pupil teachers belonging to urban and rural area.

Comparison of life skill based on subject specialization of prospective teachers

Table.4

Comparison of life skills of prospective teachers based on subject specialization

Variable	Subject specialization	Mean	SD	N	t	p
Life skill	Humanities	190.17	26.51	167	2.142	0.033
	Science	196.12	28.59	233		

The obtained t value (t-2.142, P < 0.05) is significant at 0.05level. Hence the null hypothesis "there exists no significant difference in the mean scores of life skills of Humanities and science prospective teachers" is rejected. It shows that there exists significant difference between humanities and science prospective teachers in their life skills. That is life skill of prospective teachers statistically differ with their gender. The mean values show that science prospective teachers posses more life skills when compared to humanities prospective teachers.The present results are in line with that of Sandhu (2014) which revealed that significant difference was found between science and arts pupil teachers.

FINDINGS

1. Majority of the prospective teachers possess moderate level of life skills.

2. Sex, Locality and subject specialization have significant influence on life skills of prospective teachers.

3. Female prospective teachers posses more life skills, compared to male prospective teachers.

4. Urban prospective teachers posses more life skills compared to rural prospective teachers.

5. Prospective teachers studying science subject posses more life skills compared to prospective teachers studying humanities.

IMPLICATIONS

The study revealed that majority of prospective teachers in Kanyakumari district possess moderate level of life skills. Measures should be taken to improve the life skills of prospective teachers. Life Skills should become a part of B.Ed curriculum. The curriculum should be revised and modified to make it more interesting and applicable to real and professional life. Life Skills training programmes need to be organized to equip the prospective teachers with the life skill strategies.

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STATEMENT SHOWING OWNERSHIP AND OTHER PARTICULARS

Place of Publication	:	N.V.K.S.D. College of Education, Attoor.
Periodicity of Publication	:	Bi-annual
Chief Editor	:	Dr.B.C.Sobha
Printer & Publisher	:	Dr.B.C.Sobha Principal, N.V.K.S.D. College of Education Attoor -629177
Printed at	:	Stalin Digital Press, Arasumoodu, Kulasekharam.

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