COGNITIVE EFFICACY AND SOCIAL COMPETENCE OF PROSPECTIVE TEACHERS

M. Anisha Devi

S. Rasul Mohaideen

ABSTRACT

Cognitive efficacy is our belief in our own abilities to understand, plan, remember, and respond successfully in different situations able to think about things accurately and quickly, and having the self-confidence to follow through. Social competence refers to the skills necessary to be accepted socially. The main objective of the study was to find out the significant relationship between cognitive efficacy and social competence of prospective teachers. The survey method was adopted in this study. The sample consisted of 500 prospective teachers in Thoothukudi District selected at random. The Cognitive Efficacy Test and Social Competence Scale developed by M.Anisha Devi and S. Rasul Mohaideen were used for data collection. t-test, F-test and Pearson Product Moment Correlation were used for analysing the data. The study revealed that there is a positive significant relationship between cognitive efficacy and social competence of prospective teachers. The recommendations are given at par with the findings.

Key words: **Cognitive Efficacy, Social Competence, Self Confidence**

Introduction

Teachers help in improving the cognitive development of students so that they can be more successful in the future. Cognitive development refers to the ways in which students are able to understand complex concepts and master difficult tasks using their thinking abilities. Understanding how teachers help students can help them plan specifically what they will do in their classrooms. Cognitive efficacy is our belief in our own abilities to understand, plan, remember, and respond successfully in different situations-it's being able to think about things accurately and quickly, and having the self-confidence to follow through. When facing an obstacle, cognitive efficacy is the ability to "see" the problem from different viewpoints, and to make wise choices on what to do about it.

Social competence refers to the skills necessary to be accepted socially. Social competence is one of the main tools for building high performance teams in that the members help to build trust, respect, team spirit, and reduce conflict among the team members. This in turn creates an atmosphere of caring about each other. Social competence is a complex, multi-dimensional concept consisting of social, emotional (e.g., affect regulation), cognitive (e.g., fund of information, skills for processing/acquisition, perspective taking), and behavioural (e.g., conversation skills, pro-social behaviour) skills, as well as motivational and expectancy sets (e.g., moral development, self-efficacy) needed for successful social adaptation.

Need for the study

Teachers have an influencing role in the life of every student. Good teachers guide learners not only in the process of understanding the enormous amount of accumulated knowledge available today, using it constructively, and communicating it effectively but also in the process of acquiring social abilities which are prime importance of all the students. In the modern world, the teacher should enhance their competency day by day and update their knowledge. The student-teachers require orientation in various fields of education to enable their knowledge up-gradation in the light of progress and new developments in the field of education. The prospective teachers who have an

ability to enjoy things, realize their potential for richness of living and acquire maximum mental capacities and powers and use them all intelligently and judiciously for the welfare of their own and society which in turn makes them socially competent and committed teachers. Therefore, the qualities such as cognitive efficacy and social competence enable the student teachers to find out the solutions to imperfections and interpret the opportunities that promote learned optimism, high self-esteem and social skills. So the investigators have felt the need of the present study.

Title of the Study

The title of the study is stated as "Cognitive Efficacy and Social Competence of Prospective Teachers".

Objectives

1. To find out whether there exists any significant difference between prospective teachers in their cognitive efficacy and its dimensions with respect to gender and discipline
2. To find out whether there exists any significant difference between prospective teachers in their social competence and its dimensions with respect to gender and discipline
3. To find out whether there exists any significant relationship between cognitive efficacy and social competence of prospective teachers.

Hypotheses

1. There is no significant difference between prospective teachers in their cognitive efficacy and its dimensions with respect to gender and discipline.
2. There is no significant difference between prospective teachers in their social competence and its dimensions with respect to gender and discipline.
3. There is no significant relationship between cognitive efficacy and social competence of prospective teachers.

Methodology in Brief

The investigator used the survey method for collecting data. The sample for the present study consists of 500 prospective teachers of colleges of Education in Thoothukudi district. They were selected by random sampling method. The tools used in this study are General information schedule, Cognitive Efficacy Test (2014) and Social Competence Scale (2014) prepared and validated by the investigators. The investigators have used the statistical techniques namely, t-test, ANOVA, Post ANOVA and Pearson's product moment correlation to analyse the data.

Findings and Interpretations

Table 1

Difference in cognitive efficacy of prospective teachers with respect to gender

Variables	Category	N	M	SD	CR Value	Remarks
Cognitive Efficacy Total	Male	86	21.16	6.337	0.628	NS
	Female	414	21.63	6.196		
Verbal Ability	Male	86	3.37	1.381	0.044	NS
	Female	414	3.36	1.481		
Numerical Ability	Male	86	5.27	2.055	0.872	NS
	Female	414	5.48	2.112		
Logical Reasoning ability	Male	86	5.91	2.583	1.797	NS
	Female	414	6.44	2.217		
Analytical Reasoning Ability	Male	86	2.81	1.359	4.15	S
	Female	414	2.13	1.502		
Visual-Spatial Ability	Male	86	3.8	1.927	1.794	NS
	Female	414	4.21	1.877		

(Table t-value at 5% level of significance is 1.96)

It is inferred from the table 1 that there is no significant difference between male and female prospective teachers in their verbal ability, numerical ability, logical reasoning ability, visual-spatial ability and cognitive efficacy in to to. But significant difference is found in their analytical reasoning ability. The mean scores show that male prospective teachers are better. This may be due to the fact that male students are well in scrutinizing any situations and solve the associated problems.

Table 2
Difference in cognitive efficacy of prospective teachers with respect to discipline

Variables	Sources of Variation	SS	MS	df	'F' Value	Remarks
Cognitive Efficacy Total	Between Group	2230.778	446.2	5, 494	12.923	S
	Within Group	17054.87	34.52			
Verbal Ability	Between Group	44.904	8.981	5, 494	4.336	S
	Within Group	1023.118	2.071			
Numerical Ability	Between Group	300.946	60.19	5, 494	15.629	S
	Within Group	1902.486	3.851			
Logical Reasoning Ability	Between Group	214.939	42.99	5, 494	8.837	S
	Within Group	2403.109	4.865			
Analytical Reasoning Ability	Between Group	4.983	0.997	5, 494	0.441	NS
	Within Group	1116.767	2.261			
Visual-Spatial Ability	Between Group	91.513	18.3	5, 494	5.348	S
	Within Group	1690.687	3.422			

It is inferred from the table 2 that there is no significant difference among prospective teachers in their analytical reasoning ability with respect to discipline. But, significant difference is found among prospective teachers in their verbal ability, numerical ability, logical reasoning ability, visual-spatial ability and cognitive efficacy in to.

Table 3 Post Anova

Dimensions	Discipline	N	Subset for alpha = 0.05
Cognitive Efficacy	Tamil	45	17.69
	English	106	22.59
	Mathematics	115	24.22
	Physical Science	92	21.88
	Biological Science	76	18.88
	History	66	20.48
Verbal Ability	Tamil	45	2.89
	English	106	3.71
	Mathematics	115	3.63
	Physical Science	92	3.29
	Biological Science	76	2.96
Numerical Ability	Tamil	45	3.98
	English	106	5.47
	Mathematics	115	6.47
	Physical Science	92	5.75
	Biological Science	76	4.46
	History	66	5.32
Logical Reasoning Ability	Tamil	45	5.29
	English	106	6.51
	Mathematics	115	7.35
	Physical Science	92	6.33
	Biological Science	76	5.7
	History	66	5.88
Visual-spatial Ability	Tamil	45	3.31
	English	106	4.47
	Mathematics	115	4.53
	Physical Science	92	4.32
	Biological Science	76	3.57
	History	66	3.91

So the data were put into Post-ANOVA Test in the table 3. The result shows that the prospective teachers of Mathematics discipline are better in cognitive efficacy in to, numerical ability, logical reasoning ability and visual-spatial ability than the prospective teachers of other disciplines. This may be due to the fact that mathematics teachers have high comprehension skills which can accelerate learning by creating rapid, accurate links between known and newly learned information. The prospective teachers of English discipline are better in verbal ability than their counterparts. This may be due to the descriptive nature of the subject they studied.

Table 4
Difference in social competence of prospective teachers with respect to gender

Variables	Category	N	Mean	SD	CR value	Remarks
Social Competence Total	Male	86	196.45	31.703	0.233	NS
	Female	414	195.59	28.561		
Social Skills	Male	86	2.5	1.234	0.189	NS
	Female	414	2.47	0.935		
Self Concept	Male	86	27.63	4.246	0.374	NS
	Female	414	27.82	4.268		
Assertiveness	Male	86	19.23	3.303	0.198	NS
	Female	414	19.16	2.839		
Social Leadership	Male	86	25.4	4.739	0.016	NS
	Female	414	25.39	4.452		
Social Adjustment	Male	86	2.51	0.609	0.362	NS
	Female	414	2.49	0.609		
Social Commitment	Male	86	35.86	7.08	0.832	NS
	Female	414	35.16	7.396		
Organisational Skills	Male	86	31.45	6.181	0.802	NS
	Female	414	30.87	5.959		

(Table t-value at 5% level of significance is 1.96)

It is inferred from the table 4 there is no significant difference in social competence of prospective teachers 'in total' and in the dimensions 'social skills', 'self concept', 'assertiveness', 'social leadership', 'social adjustment', 'social commitment' and 'organisational skills' between male and female prospective teachers.

Table 5
Difference in social competence of prospective teachers with respect to discipline

Variables	Sources of Variation	SS	MS	df	'F' Value	R
Social Competence total	Between Group	8579.28	1715.85	5, 494	2.048	NS
	Within Group	413798.4	837.64			
Social Skills	Between Group	4.774	0.955	5, 494	0.971	NS
	Within Group	485.984	0.984			
Self Concept	Between Group	148.242	29.64	5, 494	1.644	NS
	Within Group	8910.43	18.03			
Assertiveness	Between Group	27.025	5.405	5, 494	0.631	NS
	Within Group	4229.52	8.562			
Social Leadership	Between Group	115.141	23.02	5, 494	1.14	NS
	Within Group	9977.58	20.19			
Social Adjustment	Between Group	1.175	0.235	5, 494	0.632	NS
	Within Group	183.77	0.372			
Social Commitment	Between Group	619.56	123.91	5, 494	2.33	S
	Within Group	26268.79	53.17			
Organisational Skills	Between Group	157.305	31.46	5, 494	0.874	NS
	Within Group	17779.24	35.99			

(Table F-value at 5% level of significance is 2.21)

It is inferred from the table 5 that there is no significant difference in social competence of prospective teachers 'in total' and in the dimensions 'social skills', 'self concept', 'assertiveness', 'social leadership', 'social adjustment' and 'organisational skills' with respect to discipline. But it is found that the calculated F-value is greater than table F-value in the dimensions 'social commitment'.

Table 6
Post anova test

Dimension	Discipline	N	Subset for alpha = 0.05
Social Commitment	Tamil	45	33.64
	English	106	36.87
	Mathematics	115	35.71
	Physical Science	92	35.4
	Biological Science	76	34.64
	History	66	33.64

The Post-ANOVA test shows that table 6 English prospective teachers are better than the prospective teachers of other disciplines. This may be due to the reason that language teachers are getting more chance to participate in many social activities which make them to be highly socially responsible persons.

Table 7
Relationship between cognitive efficacy and social competence of prospective teachers

Variables	Number	'r' Value	Table Value	Remarks
Cognitive Efficacy & Social Competence	500	0.118	0.088	S

It is inferred from the table 7 that there is significant positive correlation between cognitive efficacy and social competence of prospective teachers. This may be due to the fact that when the cognitive efficacy increases, the prospective teachers show more social competence. The cognitive efficacy of prospective teachers helps them to be effective in teaching learning process and develop social skills by reducing conflict and by creating an atmosphere of caring about each other.

Recommendations

From the above analysis, it shows that only 17.2% of prospective teachers have high cognitive efficacy and 11% of prospective teachers have high social competence. It is also proved that there is a need of more

concentration in the development of cognitive efficacy and social competence among the prospective teachers. Therefore, it is recommended that,

(i) Teacher educators should use various strategies to improve their student's cognitive and social abilities.
(ii) B.Ed. theory and practical examination should be planned in such a way that it should assess all the abilities of prospective teachers such as verbal, numerical, reasoning, visual-spatial and social ability.
(iii) Seminars and workshops may be conducted to enhance social competence.
(iv) Problem based teaching method can be followed in the B.Ed. curriculum.

The prospective teachers of mathematics are found better in cognitive efficacy in total and its dimensions namely numerical ability, logical reasoning ability and visual-spatial ability and the English prospective teachers in verbal ability. The nature of the subject may be the main reasons.

It is, therefore, recommended that the inter-disciplinary subjects may be taught in higher education institutions so that the students can gain knowledge available in other subjects which ultimately improves the social competence and cognitive efficacy of the prospective teachers.

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Conclusion

The wheel of success in the cart of education revolves around the ability of the teacher – to communicate effectively, transfer the knowledge of information, and causing behavioural modification. The student teachers should develop and enhance their cognitive, affective and social abilities in order to give best instruction and to maintain positive relationships with all the students.

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M.Anisha Devi
Research Scholar
Manonmaniam Sundaranar University, Tirunelveli

Dr.S.Rasul Mohaidden
Associate Professor
V.O.C.College of Education, Thoothukudi

TECHNOLOGICAL, PEDAGOGICAL CONTENT KNOWELEDGE AMONG COLLEGE TEACHERS

G.Ponselvakumar

Dr.M.Karuppasamy

ABSTRACT

The aim of the paper was to find out the technological pedagogical content knowledge of college teachers in Madurai with reference to certain independent variables. The investigators had employed descriptive method using survey as a technique to solve the present problem. A sample of 180 college teachers was drawn through simple random sampling technique Technological Pedagogical Content Knowledge tool developed and validated by M. Annadurai and S.Suresh (2009) was used to collect data. There is significant difference between college teachers in their TPCK with respect to Gender, community and Native place.

Keywords: **Technological Pedagogical Content Knowledge (TPACK),**

Introduction

Technological pedagogical content knowledge (TPCK) refers to the knowledge and understanding of the interplay between content knowledge (CK), Pedagogical knowledge (PK) and Technological knowledge (TK) when using technology for teaching and learning (Schmidt, Thompson, Koehler, Shin & Mishra, 2009). It includes an understanding of the complexity of relationships between students, teachers, content, practices and technologies (Archambault & Crippen, 2009)

Technological, Pedagogical Content Knowledge (TPACK) is a framework to understand and describe the kinds of knowledge needed by a teacher for effective pedagogical practices in the technology enhanced classroom. The idea of pedagogical content knowledge(PCK) was first described by Lee Shulman (Shulman 1986) and TPACK builds on those core ideas through the inclusion of technology.

The TPACK framework highlights complex relationships that exist between content, pedagogy and technology knowledge areas and may be a useful organizational structure for defining what is that teachers need to know to integrate technology effectively (Archambault & Crippen 2009)

Terms and Definition

Technological Pedagogical Content Knowledge – refers to the knowledge and understanding of the interplay between content knowledge, Pedagogical knowledge and Technological knowledge when using technology for teaching and learning

College teachers – refers to those teachers who are working in arts and science colleges in Madurai district

Variables of the study

Dependent Variable Technological, Pedagogical Content Knowledge

Independent Variables

1. Gender, 2.Religion, 3.Community, 4.College kind, 5. Native place, 6.Subject, 7. Browsing habit, 8.Internet connection at home.

Objectives of the study

1. To find out whether there is a significant difference among the college teachers in terms of independent variables in their Technological, Pedagogical Content Knowledge.

Hypothesis of the Study

1. Each of the population variables involved in this study exerts a significant influence on Technological, Pedagogical Content Knowledge among College teachers in Madurai district.

Methodology

Design : Descriptive, **Method:** Normative, **Technique:** Survey,

Sample

A simple random sample of 180 arts and science college teachers in Madurai district with due representation to the independent variables, were selected.

Tool used

Technological Pedagogical content knowledge (TPACK) tool developed and validated by Annadurai. M and Suresh S. (2009) was used.

Statistical Treatment

't'– test for large samples was used for data analysis.

Hypothesis 1

Gender exerts a significant influence on Technological, Pedagogical Content Knowledge among college teachers

Variable	Sub-Variable	N	Mean	SD	t- value	Significant at 0.05 level
Gender	Male	60	39.783	4.909	2.295	S
	Female	120	37.008	4.660		

From the above table it is clear that the t-value 2.295 is greater than the table value 1.96 at 0.05 levels. Therefore hypothesis 1 is accepted. It is further noted that the male college teachers possess more Technological, Pedagogical Content Knowledge than female teachers

Hypothesis 2

Religion exerts a significant influence on Technological, Pedagogical Content Knowledge among college teachers.

Variable	Sub-Variable	N	Mean	SD	t- value	Significant at 0.05 level
Religion	Hindu	144	38.819	4.729	0.640	NS
	Others	36	37.388	4.782		

From the above table it is clear that the obtained t-value 0.640 is less than the table value 1.96 at 0.05 level. Therefore hypothesis 2 is rejected. There is no significant difference between the Technological, Pedagogical Content Knowledge of College teachers in terms of their religion

Hypothesis 3

Community exerts a significant influence on Technological, Pedagogical Content Knowledge among college teachers

Variable	Sub-Variable	N	Mean	SD	t- value	Significant at 0.05 level
Community	SC/ST	108	37.555	4.764	2.320	S
	Others	72	39.500	4.660		

From the above table it is clear that the t-value 2.320 is greater than the table value 1.96 at 0.05 level. Therefore hypothesis 3 is accepted. It is further noted that college teachers who belong to other community possess more Technological, Pedagogical Content Knowledge than college teachers who belongs to SC/ST

Hypothesis 4

College kind exerts a significant influence on Technological, Pedagogical Content Knowledge among college teachers

Variable	Sub-Variable	N	Mean	SD	t- value	Significant at 0.05 level
College Kind	Unisex	105	37.922	4.799	0.031	NS
	Mixed	75	37.944	4.691		

From the above table it is clear that the obtained t-value 0.031 is less than the table value 1.96 at 0.05 level. Therefore hypothesis 4 is rejected. There is no significant difference between the Technological, Pedagogical Content Knowledge of College teachers in terms of their College kind

Hypothesis 5

Native place exerts a significant influence on Technological, Pedagogical Content Knowledge among college teachers

Variable	Sub-Variable	N	Mean	SD	t- value	Significant at 0.05 level
Native place	Rural	48	40.062	4.703	2.080	S
	Urban	132	38.004	4.740		

From the above table it is clear that the t-value 2.080 is greater than the table value 1.96 at 0.05 level. Therefore hypothesis 5 is accepted. It is further noted that college teachers who belong to rural native place possess more Technological, Pedagogical Content Knowledge than college teachers who belongs urban.

Hypothesis 6

Subject exerts a significant influence on Technological, Pedagogical Content Knowledge among college teachers

Variable	Sub-Variable	N	Mean	SD	t- value	Significant at 0.05 level
Subject	Arts	126	37.039	4.716	0.455	NS
	Science	54	38.685	4.804		

From the above table it is clear that the obtained t-value 0.455 is less than the table value 1.96 at 0.05 level. Therefore hypothesis 6 is rejected. There is no significant difference between the Technological, Pedagogical Content Knowledge of College teachers in terms of their subject.

Hypothesis 7

Browsing habit exerts a significant influence on Technological, Pedagogical Content Knowledge among college teachers

Variable	Sub-Variable	N	Mean	SD	t- value	Significant at 0.05 level
Browsing Habit	Yes	56	38.660	4.810	0.514	NS
	No	124	37.056	4.711		

From the above table it is clear that the obtained t-value 0.514 is less than the table value 1.96 at 0.05 level. Therefore hypothesis 7 is rejected. There is no significant difference between the Technological, Pedagogical Content Knowledge of College teachers in terms of their browsing habit.

Hypothesis 8

Internet connection at home exerts a significant influence on Technological, Pedagogical Content Knowledge among college teachers

Variable	Sub-Variable	N	Mean	SD	t- value	Significant at 0.05 level
Internet connection at home	Yes	63	38.793	4.697	0.291	NS
	No	117	37.508	4.769		

From the above table it is clear that the obtained t-value 0.291 is less than the table value 1.96 at 0.05 level. Therefore hypothesis 9 is rejected. There is no significant difference between the Technological, Pedagogical Content Knowledge of College teachers in terms of their internet connection at home.

Conclusion

1. Technological, Pedagogical Content Knowledge among college teachers is independent upon
   - Religion
   - College kind
   - Subject
   - Browsing habit
   - Internet connection at home
2. Technological, Pedagogical Content Knowledge among college teachers is dependent upon.

- Gender
- Community
- Native place

3. Technological, Pedagogical Content Knowledge among college teachers is in favour of

- Male teachers than female teachers
- Other community teachers than SC/ST
- Whose native place is Rural than Urbn

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G. Ponselvakumar
Research Scholar
Department of Education
Madurai Kamaraj University , Madurai

Dr. M. Karuppasamy
Principal i/c
Thiruvalluvar College of Education for Women
Mallapuram, Madurai

"Technology will not replace teachers, but teachers who use technology will replace those who do not."

Author Unknown

"The greatest sign of success for a teacher is to be able to say "The children are now working as if I did not exist"

Maria Montessori

"Efficiency is doing Things right., Effectiveness is doing the right things"

Peter Drucker

EFFECT OF E- RESOURCE BLENDED MULTIMEDIA ON LEARNING GENETICS

P.Jasmine Sheeba

Dr G. Rexlin Jose,

ABSTRACT

Change is the law of nature as it is very apparent in the digital era. e- Resource blended multimedia is the mixture of informative electronic resources packed up with the combination of multisensory device constructed for making the process of teaching and learning effective in the classroom atmosphere. This is an experimental study with pretest-posttest equivalent group design. A sample of 50 higher secondary students was used for the study. The investigator has developed a Multimedia Package for a unit Genetics in Biology subject of XII standard. The treatment to the experimental group was administered through Multimedia Package and the control group was taught through traditional method. The investigator applied self-developed achievement test in biology to assess the effectiveness of the multimedia package on achievement of the students. Data was analyzed using ANCOVA and t-test. The findings revealed that the multimedia package instruction have significant influence on the achievement of biology and learning efficiency in Genetics compared to traditional method.

Key words **: E-resource, Multimedia, Learning Genetics,**

Introduction

Education is a process of growth of the externalization and actualization of human potential. Quality education is the ultimate goal and is associated with the developing competency among the learners. In the digital era, generally students are active, sensing, visual, sequential learners and especially the students thought and activities in the current world is entirely different from those of previous generation. The quality of learning depends on the appropriate pedagogy and proper assessments can help to promote active learning. A teacher needs to prepare the students to learn, work and live successfully in the knowledge and techno-based global society. This can be possible by bringing fundamental changes in the existing pedagogical practices through innovative technology, e-resource blended multimedia. This digital technology changes the traditional school environment into enthusiastic, innovative and active environment. By using the e-resource blended multimedia technology, the teacher is no longer the sole dispenser of knowledge; instead takes the role of guide and fosters exciting and interactive learning environment. Multimedia pedagogy based on instructional design, presentation style, flexibility and clarity of expression is quite helpful to learners in the understanding of the subject content and acquisition of skills to face the challenges of the digital world.

Significance of the Study

Genetics is the cornerstone of modern biology placing its prominence among the science. The molecular aspects of genetics became a central importance in the second half of the 20th century with the discovery of DNA structure by Watson and Crick and influences societal practices such as disease diagnosis and treatment, crop production, drug development, industrial production, criminal investigation and so on (Nelson & Cox, 2000). Students do not have a clear understanding of genetic information, resulting in wide spread confusion, uncertainty and lack of basic knowledge (Lewis & Robinson, 2000). Besides, students face learning problems due to the complexity of genetic terms, the existence of synonyms and the occurrence of redundant and obsolete terminology (Saka,

2006). The traditional instruction in Genetics leaves the students with an insufficient understanding of recent techniques in Genetics which encourage rote learning. The Kothari Commission Report (1960) states, 'If science is poorly taught and badly learnt, it is little more than burdening the mind with dead information and it could degenerate even into new superstitions' (Ramganesh & Amutha, 2011). Humans can integrate information from different sensory modalities in one meaningful experience. Therefore, the instructional designer is faced with the need to choose between several combinations of modes and modalities to promote meaningful learning (Moreno & Mayer, 2004). From this perspective, the role of multimedia-based instructional design takes on greater responsibility and becomes a critical component to give an accurate and rich picture of genetic concepts which are often very hard to grasp from text-based presentation of information.

The major significance of the study is that it drives the educator and the learners to realize the importance of techno-pedagogical practices during the teaching-learning process. This study facilitates the instructor to locate the 'right' technology to support 'good' pedagogy. It will be extremely beneficial to the learner in the contemporary educational scenario, to build proficiency, meaningful mental representation and desirable behavioural outcome by scaffolding or gradual removal of a tutor's support and become an independent problem solver.

Objectives of the Study

- To develop an e- Resource blended Multimedia Package in Genetics.
- To find the effect of Multimedia Package on achievement of biology of higher secondary students in Genetics after experimental treatment.

Design of the study

The present study is an experimental study with pretest-post test Equivalent Group Design (Best & Kahn, 1998). Achievement was treated as dependent variables while e-Blended Multimedia Package was treated as independent variable in this study.

Sample

The study was carried out on a sample of 50 higher secondary school students of Kanyakumari district. The 50 sample was selected after the administration of Intelligence Test. All the 50 students were equally divided and formed experimental group (E) and control group (C).

Tools Used

The following tools were used for the purpose of collecting data related to different variables covered in the study:

1. **Standardized Test**: General Intelligence Test for Higher Secondary Students (GIT) by Roma Pal & Rama Tiwari to measure the intelligence of the students.
2. **Self- Developed Tool:** Achievement Test in Genetics

Statistical Techniques Used

Data was analyzed by using Mean, Standard Deviation, t test and Analysis of Covariance (ANCOVA).

Major Findings of the Study

The findings of this experimental study depicted that the e- blended multimedia package is effective in teaching of Genetics and drives the students to acquire better achievement.

Table: 1
Significance of Difference between the Control and Experimental Groups in the Overall Gain Scores

Group	Size	Mean	SD	t Value	p Value
Control	25	8.76	6.88	6.153	0.000**
Experimental	25	20.48	6.58		

**Significant at 1% level

In the table (1), since p value is less than 0.01, the null hypothesis not accepted at 1% level of significance. Hence, it is concluded that there is significant difference in the overall gain scores between the control and the experimental groups. The mean scores show that the experimental group gained more than the control group by the treatment.

Table: 2

Comparison of Achievement under Multimedia Package and Traditional Method

	Mean		Source	Sum of Squares	df	Mean Square	F	p
	Expl.	Control						
Pre-test (X)	55.28	53.08	Between Groups	60.50	1	60.50	1.364	0.249
			Within Groups	2128.88	48	44.35		
			Total	2189.38	49			
Post-test (Y)	75.76	61.84	Between Groups	2422.08	1	2422.08	22.779	0.000**
			Within Groups	5103.92	48	106.33		
			Total	7526.00	49			
Sum of Codeviates (SC xy)			Within Groups	2528.00				
			Total	2910.80				
Adjusted Post-test (Y.X)	74.45	63.15	Between Groups	1554.09	1	1554.09	34.749	0.000**
			Within Groups	2101.97	47	44.72		
			Total	3656.07	48			

**Significant at 1% level

The value of the ANCOVA (Fy. x = 34.749) is significant at 0.01 level. From Fy.x, it is clear that the final average score on achievement, after adjusted for the initial difference in the experimental group (74.45) differs significantly from that in the control group (63.15). From this, it is clear that multimedia package is statistically effective than the traditional method in fostering achievement in Genetics.

Interpretation of Data

The results show that the students in the experimental group performed better in the post-test than their counterparts in the control group and hence the multimedia package was effective to the students. This may be due to the reason that multimedia package shows greater pedagogical strength by facilitating good learning experience, adding richness to the subject knowledge and delivering information coherently in small chunks. Students can navigate the information, build the connections between relevant topics and construct the knowledge in a meaningful sense and learn accordingly to their own pace and needs, and gains better achievement. Moreover, this positive result might be due to the effectiveness of multimedia accompanied by videos, pictures, colours, music and sounds which make students feel enthusiastic, attract their attention and make the students learn more efficiently and effectively whereas; in case of control group students had learnt only through lecture method without being exposed to multimedia. Students were passive listeners and recipients of knowledge

imparted by the teacher. Lack of self-paced learning and interactions in the conventional teaching encourages rote learning and hinders their academic progress in Genetics. Hence it can be concluded multimedia package fosters better achievement in Genetics with respect to the conventional method of teaching.

Recommendations

Teacher is an essential component for the qualitative improvement of education. The teacher can develop digital learning resources in the form of e-books, animations, lessons, exercises, interactive games, models and simulations, videos, presentation slides, plain text materials, graphics, or any combinations of the above, will have them harmonised with the requirements of the curriculum and supplement it.

The Head of the School plays an important role in the establishment and optimal utilisation of techno-pedagogical practices in the school. The headmaster may equip the school with multimedia and make available to the teachers and students and facilitate innovation in academic process. The head of the school may invite computer experts and make arrangements to train teachers to access educational websites relevant to the subject and encourage utilizing it properly during instructional delivery.

The Director of School Education shall insist the utilization of technology in the process of teaching-learning at schools and frequently evaluates with the assistance of Chief Educational Officers, besides giving training in the development of ICT tools, managing and maintaining data bases.

Jasmine Sheeba
Research Scholar
Manonmaniam Sundaranar University
Tirunelveli

Dr.Rexlin Jose
Assistant Professor
Department of Education (DD&CE)
Manonmaniam Sundaranar University,
Tirunelveli

Conclusion

The findings of the study show that the multimedia package is a significant contribution to the process of teaching and learning of Genetics in the classrooms. It implies that multimedia package stimulates the students' mind and encourages learning through all the senses and increases the level of knowledge and results in better academic outcomes. The implication of multimedia package as a tool in school education facilitates to maintain standard and are capable of providing students with potential to fulfil the aspiration of tech-savvy society.

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FACTORS DETERMINING CHOICE OF CAREER AMONG SECONDARY SCHOOL STUDENTS IN TIRUCHENDUR TALUK

H.Gayathri

ABSTRACT

This research paper sought to uncover the delicate issue that requires caution and serious considerations of how an individual is intended to assist and make conscious effort in the selection of courses in term with their abilities, interests and understanding the objectives of higher secondary education by self-direction. The objective is (i) to find whether there is any significant difference between the mean scores of the factors determining choice of career and its dimensions of secondary school students with respect to their gender. (ii) to find whether there is any significant difference between the mean scores of the factors determining choice of career and its dimensions of secondary school students with respect to their subject. This study investigated into choice of career with the self made tool of reliability 0.08. The findings were (i) there exists no significant difference between the mean scores of the choice of career and its dimensions (opportunity and Personality) of secondary school students with respect to their gender; but significant difference exists between the choice of career and its dimension (Environment) with respect to gender. (ii) there exists no significant difference between the mean scores of the factors determining choice of career and its dimensions (Environment, Opportunity and Personality) of secondary school students with respect to their subject. The findings revealed that Secondary school students are in need of better improvement regarding determining choice of career. The result of the survey also indicates that environment, opportunity and personality play a significant role in determining choice of career though flexibility, versatility and adaptability are the keys to career-building success.

Key Words :**Choice of career Self direction, Environment, Opportunity, Personality.**

Introduction

The word "career" means a field for or pursuit of consecutive progressive achievements, specifically in public, professional or business life; a chosen job or occupation or profession, regarded as a lifelong activity. Career Needs in general means the state of wanting something that is absent or unavailable. What may be essential requirement for one may only be of peripheral importance to another. The famous Psychologist Abraham Maslow proposed his well-known "Hierarchy of Needs" more than 30 years ago, but it is just as valid today as it was then. Some amount of career planning is absolutely essential for everyone at various stages. There are many factors such as skills, values, constraints, opportunity, environment and personality etc., which would affect one's career choice. To achieve a right career, a core of knowledge which would enable pupil to undertake work or pursue further studies – academic or vocational and right attitude towards career choices must be developed. A good and wise choice of career would place our country ahead in the global village.

Choice of career among secondary school students

Choosing a career path may depend on different factors but the most important and most expected one is education. Diversification or streaming of student is based on the psychological principle of individual differences, which can help them in specializing according to their talents. Higher Secondary Education performs several functions, which remains sharply differentiated. For each generation of individuals, it is a decision-making area. It is one which is all the more important because the individual's educational or vocational choices are made at this stage, which determines the further occupational,

social or economic positions held by the individuals.

Need and significance of the study

The choice of career has been a serious problem among the secondary school students. No matter what ones age is, the choice of career or desire is an important question for everybody. A lot of students in secondary schools believe that their future is a glorious adventure in which they are bound to succeed. How the young people of today meet the problems of tomorrow will depend upon the amount of success they make in planning for that tomorrow. India has made rapid technological advancements and is globalized now. Indian youth is faced with the challenge of choosing careers more wisely, particularly because decisions involve early planning for specialization and training. But making career decision is a difficult and anxious task for most of the students and it requires caution and serious attention. Great indeed is the importance of career is the life of an individual. Choice of career which an individual makes reflects the other phases of development of our country. Hence the Problem "Factors Determining Choice of Career among Secondary School Students in Thiruchendur Taluk" was undertaken.

Variables of the study

Factors determining Choice of Career constitutes the variable of the study.

Objectives

1. To find whether there is any significant difference between the mean scores of the factors determining choice of career and its dimensions of secondary school students with respect to their gender.
2. To find whether there is any significant difference between the mean scores of the factors determining choice of career and its dimensions of secondary school students with respect to their subject.

Hypotheses

1. There is no significant difference between the mean scores of the factors determining choice of career and its dimensions of secondary school students with respect to their gender.
2. There is no significant difference between the mean scores of the factors determining choice of career and its dimensions of secondary school students with respect to their subject.

Methodology

Survey method is employed for the present study.

Population

Higher Secondary School Students studying in Tiruchendur Taluk form the target group of the study.

Sample

The sample of the present study constitutes randomly 224 Higher Secondary Students from six selected schools of Tiruchendur Taluk by using simple random sampling technique.

Tool

The investigator had used the following tools for the study,

1. Personal Data Sheet
2. Choice of Career Questionnaire

Self made tool of reliability 0.08 was employed in order to assess the choice of career among secondary school students. Each item in this tool was rated on five point scale. The options given to every statement are Strongly Agree, Agree, Undecided, Strongly Disagree and Disagree.

For positive items the scoring will be 5,4,3,2,1 and for negative items the scoring will be 1,2,3,4,5 respectively.

Results

Null Hypothesis: 1

There is no significant difference between the mean scores of the factors determining choice of career and its dimensions of secondary school students with respect to their gender.

Table 1
Difference between choice of career and its dimensions of higher secondary students with respect to gender

	Category				Calculated 't' value	P Value	Remarks at 5% level
	Male (N =93)		Female (N =131)				
	Mean	SD	Mean	SD			
Environment	33.63	5.853	31.87	5.157	2.385	0.018	S
Opportunity	34.66	4.678	32.68	4.727	1.907	0.058	NS
Personality	33.98	4.248	35.85	5.993	0.603	0.547	NS
Total	102.27	11.105	100.40	10.987	2.023	0.044	S

It is referred from the above table that the calculated p-value is lesser than the table value at 5% level of Significance. Therefore the null hypothesis is rejected. It shows that there is significant difference between choice of career and its dimensions (Environment) of Teacher Educators with respect to their gender.

Null Hypothesis: 2

There is no significant difference between the mean scores of the factors determining choice of career and its dimensions of secondary school students with respect to their subject.

Table 2
Difference Between Choice of Career And Its Dimensions of Higher Secondary Students With Respect To Subject

	Category				Calculated 't' value	P Value	Remarks at 5% level
	Male (N =93)		Female (N =131)				
	Mean	SD	Mean	SD			
Environment	33.02	5.414	32.05	5.624	1.296	0.196	NS
Opportunity	34.15	3.937	35.64	29.868	0.557	0.578	NS
Personality	35.77	5.118	37.99	38.979	0.636	0.525	NS
Total	102.94	9.584	105.98	49.032	0.540	0.591	NS

It is referred from the above table that the calculated p-value is greater 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 choice of career and its dimensions (Environment, Opportunity and Personality) of Higher Secondary students with respect to their subject.

Interpretation

- There exists significant difference between the mean scores of the Choice of Career and its dimension (Environment) with respect to their gender. The mean value indicated that male have better environment in making career choices than female.
- This may be due to their curiosity to know the innovative and new things and their environment, also their keen watch about the update and day to day information of new fashion. Many of the educational courses and employability are favourable for males than females. They are highly focused towards the target and are achievement motivated and less distracted. The call of instinct is high.

Recommendations

- Career counseling can be provided to students which develop interest among students.
- Career assessments and Decision making steps should be taught by the institutions for the welfare of the students.
- Many service courses are to be organized by the extension services, Department of Education to orient the teachers and lectures towards career guidance.

Conclusion

. The findings of the study would contribute to the future of the nation. This study reveals that Secondary school students are in need of better improvement regarding determining choice of career. Students must be trained to balance assertive behaviour, self-awareness, identification of skills, assessing one's strengths and should be motivated to develop and implement a vision and goals for their life. The investigator believes that this attempt may be stepping stone to predict the factors of career choices and strategies to enhance the wise choice of higher secondary

students in their career trajectory and thereby would take our nation ahead.

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H Gayathri
Assistant Professor in Physical Science
Dr.Sivanthi Aditanar College of Education,
Tiruchendur.

"Choose a job you love and you will never have to work a day in your life".

Confucius

"A Career is not just about earning an income, It is about pursing the essence of your life."

Terry Mante

"Everyone is a genius. But if you judge a fish out its ability to climb a free it will live its whole life believing that it is stupid"

A Einstein

ATTITUDE TOWARDS SOCIAL CHANGE OF HIGH SCHOOL STUDENTS

I. Jeyaraj

Dr.R.Ramnath

ABSTRACT

A survey was conducted to study the attitude of high school students towards social change. Normative survey method was adopted for the present study. Two hundred IX standard students were randomly selected from six high schools situated in Villupuram district. Attitude scale constructed and standardized by R S. Singh was used as the tool. The 6-point scale consists of thirty two statements (Includes both favourable and unfavourable items) encompass four sub-areas (socio- religious, marriage, position of women and education). The result revealed that the sample shows favorable attitude towards social change. There exists significant difference in attitude of IX standard students towards social change with respect to locality.

Key Words: **Social change, High school students, Social patterns.**

Introduction

Social change is the change in society. Society is a web of social relationships. Hence social change is a change in social relationships. It is the change in these which alone we shall regard as social change. What are social relationships? Social relationships include social processes, social patterns and social interactions. These include the mutual activities and relations of the various parts of society. In the words of Jones, "Social change is a term used to describe variations or modifications of any aspect of social processes, social patterns, social interactions, or social organization" Thus social change is a change in the social organization. It is in this sense that Davis has written that "By social change is meant only such alterations as secure in social organization-that is the structure and functions of society." Social change can be observed in every society. According to Merrill and Eldredge, "Social change means that large numbers of persons are engaging in activities that differ from those which they or their immediate (forefathers) engaged in some time before".

Need of the Study

Social change is a difficult task and it is more difficult in the case of society like India which has not only a fathomless historical depth of traditions but is also engulfed in a movement of nationalistic aspirations under which concepts of change and modernization are loaded with ideological meanings. Modernization involves a transformation of social, political and economic organization**.** It involves a change from the traditional techniques of production towards the application of scientific knowledge in the area of education. The important aspect of modernization is the provision of educational facilities so that there is universal literacy and also a good proportion of literate men and women. Education is the most important instrument of modernization. The present research is an attempt to study the attitude towards social change of high school students. It is expected that present investigation may provide certain clues to understand the impact of social change for high school students.

Objectives of the study

1. To study the attitude towards social change of high school students.
2. To study the attitude towards social change of high school students with respect to Gender ,Locality, Type of family Type of school, Community, Parental qualification, Parental occupation, Annual income

Hypotheses of the study

1. The attitude towards social change of high school students is favorable.

2. There is no significant difference in attitude towards social change of high school students with respect to Gender , Locality, Type of family Type of school, Community ,Parental qualification, Parental occupation, Annual income

Method used for the study

The normative survey method is adapted in this study.

Sample of the study

The sample consists of 200 IX-standard students. The sample was collected from six High schools in Villupuram region through random sampling technique.

Tool used for the study

The tool used in the present study is "Modernization Scale" constructed and standardized by Raghavendra S. Singh along with personal data sheet.

Scoring and interpretation

The tool consists of four sub-areas namely; socio- religious, marriage, position of women and education. The scoring procedure for the present study is as follows for favorable statements a score of 6,5,4,3,2 and 1 from extremely agree to extremely disagree was given .For unfavorable statements scorings are reversed.

Data collection

With the permission of the head of the institution the tool was administered to the students. Instructions to answering the tool were clearly given. After the instructions, the sample was asked to register his/her responses to the various items of the inventory. Though there is no time limit, usually it takes thirty minutes to complete the test.

Statistical techniques used

The data collected by the researcher from the sample were analyzed statistically by using SPSS.

Results and interpretation

The collected data were analyzed statistically using SPSS and the results were presented in the Table 1 and 2.

Table 1 shows that the mean, median and standard deviation of attitude towards social change of high school students

Variable	N	Mean	Median	SD
Attitude towards social change	200	123.43	124.02	16.02

The Mean, Median and Standard Deviation of the sample with respect to their attitude towards social change are found to be 123.43, 124.02 and 16.02 respectively. The mean value falls with favourable attitude level. Hence the stated hypothesis is accepted.

Table 2 shows that Mean , Standard deviation ,'t' value of attitude towards social change of high school students with respect to different demographic variable.

Sample	Sub-sample	N	Mean	S.D.	t-value	R
Gender	Male	100	123.93	16.84	1.08	NS
	Female	100	124.36	17.03		
Locality	Rural	111	119.74	17.27	3.26	S
	Urban	89	122.70	16.91		
Type of family	Joint	58	122.70	17.81	1.28	NS
	Nuclear	142	110.65	16.56		
Type of school	Government	89	122.31	16.84	0.74	NS
	Non-Government	111	12.54	17.36		
Community	OBC	110	123.62	16.84	1.84	NS
	Others	90	121.31	16.36		
Parental qualification	High school and below	108	120.41	16.39	1.03	NS
	Above high school	92	121.89	17.20		
Parental Occupation	Government	136	123.31	16.32	1.78	NS
	Private	64	122.94	17.40		
Annual income	Below 1,00,000	126	122.87	15.76	1.76	NS
	Above 1,00,000	74	123.78	18.21		

From the above table-2, the result revealed that there is no significant difference in the level of gender, type of school, type of family, parental qualification, parental occupation and annual income of the sample. On the other hand there is a significant difference exists in the level of locality of the sample.

Major findings

1. The level of attitude towards social change of high school students is favorable
2. Urban based IX- standard students have shown high favorable attitude towards social change compared to rural IX-standard students.

Conclusion

The educational system of any society is related to its total social system .The main function of the educational system is to transmit the cultural heritage to the new generations. But in a changing society, these keep on changing from generation to generation and the educational system in such a society must not only transmit the cultural heritage, but also aid in preparing the young for adjustment to any changes in them that may have occurred or are likely to occur in future.

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I.Jeyaraj
Ph.D., Scholar
Department of Education,
Alagappa University, Karaikudi

Dr.R.Ramnath
Assistant Professor,
Department of Education,
Alagappa University, Karaikudi

"You must be the change you want to see in the world."

Mahatma Gandhi

"Social change is not going to come from just knowing more information but doing something with it".

Pia Mancini

INFLUENCE OF TEACHER-PUPIL RELATIONSHIP ON THE FEELING OF SECURITY OF ADOLESCENTS

P. Thivya

Dr. S. Francisca

ABSTRACT

The present study was conducted to investigate the influence of teacher-pupil relationship on the feeling of security of adolescents. To solve the present problem the investigator employed descriptive method using survey as a technique. A sample of 1000 high and higher secondary students was randomly selected from the school of Tamilnadu. Teacher-Pupil Relationship Scale and Feeling of Security Scale developed and validated by P. Thivya and S. Francisca, (2015) was used for collecting data. For the analysis of data't'-test and correlation were used. The findings of the study revealed that there is a significant positive correlation between teacher-pupil relationship and feeling of security of adolescents.

Key words: **Teacher-Pupil Relationship, Feeling of Security, Adolescents**

Introduction

The teacher–student relationship is one of the most powerful elements within the learning environment. A major factor affecting students' development, school engagement and academic motivation, teacher–student relationships form the basis of the social context in which learning takes place (Hughes & Chen, 2011). Supportive and positive relationships between teachers and students ultimately promote a "sense of school belonging" and encourage students to "participate cooperatively in classroom activities" (Hughes & Chen, 2011). The teacher student relationship is very important for adolescents. The communication between the student and the teacher serves as a connection between the two, which provides a better atmosphere for a classroom environment. Teacher plays an important role in the path of students throughout the schooling experience.

Feeling of security is a state of mind in which one is willing to accept the consequences of one's behaviours. All the aspects of an individual's behaviour in all areas of his life can be interpreted in terms of security (Blatz, 1967). Adolescence is a time of considerable increase in risk in a range of psycho-social problems. These include substance use or abuse, school misconduct, academic failure, juvenile crime, self-injury and suicide (Simons-Morton, Crump, Haynie & Saylor, 1999) as well as mental health disorders.

Significance of the study

Students who have positive relationships with their teachers use them as a secure base from which they can explore the classroom and school setting both academically and socially, to take on academic challenges and work on social-emotional development. Through this secure relationship, students learn about socially appropriate behaviours as well as academic expectations and how to achieve these expectations (Hamre & Pianta, 2001). Positive teacher-student relationships enable students to feel safe and secure in their learning environments and provide scaffolding for important social and academic skills (Baker et al., 2008). The student will feel valued and respected. Students feel flattered when the teacher eventually gives them the option of contributing, or in other words the teacher asks for an opinion, which is usually not offered to the students. The teacher(s) does not have to give up all their control, rather teachers share control with students and encourage interactions that are determined by mutual agreement. A significant body of research indicates that "feeling of security of adolescents are influenced by

the quality of the teacher and pupil relationship". This study initiates good relationship between teachers and students and helps the pupil to feel security inside the school. The result may be an eye opener for teachers to know the importance of providing safe environment inside the classroom to develop good teacher-pupil relationship.

Statement of the problem

Adolescence is considered as crucial and significant period of an individual's life. So in this stage teacher-pupil relationship is very much essential for the students to feel safe inside the school campus. The aim of the study is to find the influence of teacher-pupil relationship on the feeling of security of adolescents.

Objectives

- To find out whether there is any significant difference between the mean scores of teacher-pupil relationship as reported by adolescents with respect to gender.
- To find out whether there is any significant difference between the mean scores of feeling of security of adolescents with respect to gender.
- To find out whether there is any significant correlation between teacher-pupil relationship and feeling of security of adolescents.

Hypotheses

- There is no significant difference between the mean scores of teacher-pupil relationship and its dimensions as reported by adolescents with respect to gender.
- There is no significant difference between the mean scores of feeling of security of adolescents and its dimensions with respect to gender.
- There is no significant correlation between teacher-pupil relationship and feeling of security of adolescents.

Research Methodology:

The investigator had employed descriptive method using survey as technique to study the influence of teacher-pupil relationship and feeling of security of adolescents. The population of the study consisted of 9^{th}, 10^{th}, 11^{th} and 12^{th} standard school students of Tamilnadu. The investigator has randomly selected 1000 students from twenty two schools. The tools used for this study were Teacher-Pupil relationship Scale and Feeling of Security Scale which were developed and validated by S. Francisca and P. Thivya (2015). The following statistical techniques were used to analyze the data were mean, standard deviation, t-test and correlation.

Analysis

Table: 1

Difference between mean scores of teacher-pupil relationship and its dimensions as reported by adolescents with respect to gender.

Dimensions	Categories	Count	Mean	SD	t-Value	R
Classroom	Male	504	34.97	6.227	2.639	S
	Female	496	36.03	6.400		
School environment	Male	504	32.46	5.865	3.369	S
	Female	496	33.71	5.826		
Discipline	Male	504	30.03	6.379	4.157	S
	Female	496	31.68	6.170		
Guidance & Counselling	Male	504	37.44	7.212	2.860	S
	Female	496	38.76	7.313		
Co-curricular activities	Male	504	37.07	8.103	1.820	NS
	Female	496	38.01	8.204		
Teacher – Pupil relationship in total	Male	504	171.98	27.813	3.495	S
	Female	496	178.19	28.287		

It is inferred from the above table that there is significant difference between teacher-pupil relationship as reported by adolescents and its dimensions such as classroom, school environment, discipline, guidance and counseling and teacher-pupil relationship in total with respect to gender. But there is no significant difference between teacher-pupil relationships as reported by adolescents in the dimension co-curricular activities with respect to gender.

Table - 2
Difference between the mean scores of feeling of security of adolescents and its dimensions with respect to gender.

Dimensions	Categories	Count	Mean	SD	t Value	R
School security	Male	504	25.94	4.648	2.058	S
	Female	496	26.54	4.633		
Peer group security	Male	504	24.96	4.421	1.408	NS
	Female	496	25.37	4.704		
Self security	Male	504	59.33	10.038	2.013	S
	Female	496	60.66	10.767		
Feeling of security in total	Male	504	110.23	16.059	2.192	S
	Female	496	112.57	17.604		

There is significant difference between the mean scores of feeling of security of adolescents and its dimensions such as school security, self security and feeling of security in total with respect to gender. Comparing the mean scores female adolescents felt more security than the male adolescents. But there is no significant difference between the mean scores of feeling of security of adolescents dimension peer group security with respect to gender.

Table - 3
Correlation between Teacher – Pupil Relationship and its dimensions reported by Adolescents and Feeling of Security of Adolescents with reference to Total Sample

Dimension	count	table value	'r' value	R
Classroom	1000	0.062	0.378	S
School environment	1000	0.062	0.410	S
Discipline	1000	0.062	0.388	S
Guidance & Counselling	1000	0.062	0.421	S
Co-curricular activities	1000	0.062	0.285	S
Teacher – Pupil relationship in total	1000	0.062	0.449	S

It is inferred from the above table the calculated 'r' values are greater than the table value. Hence there is significant positive correlation between teacher – pupil relationship reported by adolescents and its dimensions and feeling of security of adolescents with respect to total sample.

Discussion

Significant difference is found between male and female students in their perception of teacher-pupil relationship and its dimensions except co-curricular activities. While comparing the mean value it is found that female students perceive a better teacher-pupil relationship. This may be due to the fact that female students are open minded in nature. The female students need guidance in many aspects and females naturally crave for elders care and affection; female students take disciplining in a positive sense.

Significant difference is found between male and female students in their perception of feeling of security in schools. The result shows that female students feel more secured than male students. The reason may be that mostly female teachers are appointed in the schools. So female students can easily approach their teachers and share their naivety without any hesitation.

Positive significant relationship is found between the perception of teacher-pupil relationship and its dimensions and feeling of security of adolescents. This may be due to the reason that teachers are liked by students, shared their joy and sorrow with the teachers, giving effective feedback and encouraging tenacity when work becomes challenging; these traits help the students to feel secured inside the school.

Conclusion

The teachers must have the responsibility in providing a secure environment as well as guidance to the adolescents as patterns of development during adolescence will greatly influence their adult role. From the observation of the present study it is found that there is a significant difference found in the perception of feeling of security among adolescence in schools with respect to gender and also there is significant difference found in the teacher-pupil

relationship as reported by adolescents with respect to gender. The correlation coefficient results states that there is a positive relationship between the teacher-pupil relationship and feeling of security of adolescents.

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P.Thivya
Research Scholar
St.Ignatius College of Education
Palayamkottai

Dr.S.Francisca
Research Scholar
St.Ignatius College of Education
Palayamkottai

"I Want to be that teacher that when my children look back on this education they feel love in their hearts, have a smile on their face and can truly say they know that I cared".

Teacher with heart

"No Significant learning occurs without a significant relationship"

Dr.James Comir

ICT RESOURCES AND EDUCATION IN SECONDARY TEACHER EDUCATION

D.Thangamani

Dr.T.Nagavalli

ABSTRACT

Educational systems around the world are under increasing pressure to use the new information and communication technologies (ICT) to teach students the knowledge and skills they need in the 21st century. The 1998 UNESCO World Education Report, Teachers and Teaching in a Changing World, describes the radical implications the new information and communication technologies have for conventional teaching and learning. It predicts the transformation of the teaching-learning process and the way teachers and learners gain access to knowledge and information. The study has revealed the mode of ICT education imparted in secondary teacher education institutions and the resources available in these institutions. In the Aided College of Education, Certificate Course in Computer Science is given to all the trainees. In the Government and Self-financed Colleges of Education Computer Science is taught as an Optional Subject and as an Elective subject. All the Colleges of Education have well equipped Educational Technology Laboratory used by the educators and the trainees.

Key words : **Secondary teacher Education Educational technology**

Introduction

Benefits and Roles of ICT in Education

Hepp, Hinostroza, Laval and Rehbein (2004) state the following reasons for the application of ICT in education:

A new society requires new skills*:* Due to the fact that ICT is the pre-eminent tools for information processing, new generations need to become competent in their use, should acquire the necessary skills, and therefore must have access to computers and networks during their school life.

Productivity enhancement*:* Schools are knowledge-handling institutions; therefore, ICT should be fundamental management tools on all levels of an educational system, from classrooms to ministries.

A quest for quality learning: Schools should profoundly revise present teaching practices and resources to create more effective learning environments and improve life-long learning skills and habits in their students.

In order to address the questions of "How can ICT be applied to support education change?" and "How can its application in education in turn support sustained economic development and social transformation?" Kozma (2005) suggests the following four types of approaches in general:

ICT are used to improve the delivery of and access to education. This approach can improve education on the margin by increasing the efficiency by which instruction is distributed, but it need not involve fundamental change.

ICT are the focus of learning. By learning ICT skills, students become better prepared for work that increasingly involves the use of ICT. ICT can be used to improve student understanding, increase the quality of education, and thereby increase the impact of education on the economy. Knowledge creation, technology, technological innovativeness, and knowledge sharing can contribute to the transformation of the education system and to sustained economic growth and social development. Furthermore,

Kozma and Anderson (2002) claim that ICT are transforming schools and classrooms by bringing in new curricula based on real world problems, providing

scaffolds and tools to enhance learning, giving students and teachers more opportunities for feedback and reflection, and building local and global communities that include students, teachers, parents, practising scientists, and other interested parties. Similarly, Hepp, Hinostroza, Laval and Rehbein (2004) state that the roles ICT play in the educational system can be pedagogical, cultural, social, professional and administrative.

Pedagogical Tool Role*:* ICT provide a new framework that can foster a revision and an improvement of teaching and learning practices such as collaborative, project-based and self-paced learning.

Cultural, Social, and Professional Roles: The cultural, social and professional roles of ICT are exercised primarily through an effective use of the vast amount of information sources and services available today via Internet and CD-based content for the entire educational community: students, teachers, administrators and parents.

Administrative Roles*:* ICT have important roles to play in making school administration less burdensome and more effectively integrated to the official information flow about students, curricula, teachers, budgets and activities through the educational system information pipelines.

Need and significance of the Study

Educational systems around the world are under increasing pressure to use the new information and communication technologies (ICT) to teach students the knowledge and skills they need in the 21st century. The 1998 UNESCO World Education Report, Teachers and Teaching in a Changing World, describes the radical implications the new information and communication technologies have for conventional teaching and learning. It predicts the transformation of the teaching-learning process and the way teachers and learners gain access to knowledge and information. Teacher education institutions are faced with the challenge of preparing a new generation of teachers to effectively use the new learning tools in their teaching practices. For many teacher education programmes, this daunting task requires the acquisition of new resources, expertise and careful planning. The study will reveal the mode of ICT education imparted in secondary teacher education institutions and the resources available in these institutions.

Statement of the Problem

ICT Resources and Education in Secondary Teacher Education

Objectives of the Study

- To study the mode of ICT education given by the secondary teacher education institutions
- To find out the resources of ICT in teacher education institutions

Sample

The study focuses teacher education at secondary level. Hence fourteen Colleges of Education in Salem were taken up for the study. One Government College of Education, one Private Aided College of Education and twelve Self Financing Colleges of Education were the selected sample institutions. Stratified random sampling is done. All the Heads of the institutions and Computer Faculty were the sample.

Tool for the study

The tool used for the present study is a questionnaire type. The questionnaire prepared was adapted from the tool used by Prasad, S. N. for his study on Survey Report on Pre-service Teacher Training on ICT Use in Education in Asia and the Pacific India Case Study, May 25, 2005 and was standardized by the investigator. Content validity was established by getting opinion from experts and reliability was also established by test re- test method.

Data were collected from heads of the institution and the computer faculty of government, aided, private B.Ed. colleges in Salem. The B.Ed. colleges were visited by the investigator. The questionnaire

meant for the heads of the institution and the computer faculty was given to the head and after a week the sheets were collected.

Research Methodology

In the present study the investigator is intended to do find out the level of utilization of information and communication technologies in teacher education. **Normative survey method** is adopted for conducting the present study.

Limitations of the study

The study has been restricted to fourteen B.Ed colleges of Education in Salem District in Tamil Nadu.

Data Analysis

Qualitative analysis was done.

Summary of findings

In the Aided College of Education, Certificate Course in Computer Science is given to all the trainees. In the Government and Self-financed Colleges of Education Computer Science is taught as an Optional Subject and as an Elective subject. Reasons for Imparting Computer Education in their Institution as expressed by the Head of the Institution in the Order of Preference

- To cater to the quest for quality learning
- To make students computer literate
- To train the trainees employ the tools of the technology to supplement traditional teaching

The Role of ICT use in Teaching in their Institution as expressed by the Head of the Institution in the Order of Preference

- Pedagogical Tool Role
- Quality learning and Teaching tool

Strengths of ICT in Teacher Education as expressed by the Head of the Institution in the Order of Preference

- Strong government commitment and support
- The regulatory role of the NCTE and accrediting bodies
- Influence of a strong knowledge based economy of the country
- Widespread technical expertise available within the country. Increasing awareness of the usefulness of ICT for enhancing the quality of the Teaching-learning process
- Ready availability of hardware and software resources within the country Weaknesses of ICT use in Teaching in their Institution as expressed by the Head of the Institution in the Order of Preference
- Lack of trained human resources for the use of ICT
- High costs of hardware, software and other infrastructure facilities
- Obsolescence of hardware and need for replacement after just a few years of use
- Tools of ICT still being treated as novelty rather than necessity. Innovations of ICT use in Teaching in their Institution as expressed by the Head of the Institution in the Order of Preference
- Intel's 'Teach to the Future' XPDITEE nation-wide initiative

Opportunities of ICT use in Teaching in their Institution as expressed by the Head of the Institution in the Order of Preference

- Edu Sat, Learning experiences on ICT for teacher educators
- Use of ICT infrastructure and tools on a proportionately massive scale
- On-line interactive learning opportunities for students and teachers

Threats of ICT use in Teaching in their Institution as expressed by the Head of the Institution in the Order of Preference

- Lack of adequately trained staff to undertake new and innovative ICT programmes
- Complacency and indifference on the part of some educational administrators and teacher educators
- Lack of skilled manpower, to manage available systems and inadequate training facilities for ICT education

- Personal lack of computer skills
- Concern about getting help with computer related problems
- Poor quality of the existing ICT infrastructure. Lack of motivation as well as opportunities for teacher educators to take up research and developmental work in ICT related areas
- Lack of effective co-ordination of various ICTs for education initiatives

Syllabus / Content Matter included in Computer Course in their Institution as Given by the Computer Faculty

- Concepts of hardware and software
- Principal Hardware components and peripherals of a multimedia and Internet- ready system
- Word processing, document preparation and printing
- Spreadsheet applications, including graphical and statistical analysis of data
- Fundamentals of database design, creation and management
- Creation of multimedia presentations and slide shows using Power Point
- Using the Internet for e-mail and file transfer
- Surfing the Internet for searching and selecting educational content and ideas for teaching, Networking
- File Management, Database Management
- Internet and Web Browsing

Programme Resources of ICT available in their Institution as given by the Computer Faculty

- Computer Laboratory
- Language Laboratory
- Educational Technology Laboratory
- Office Automation
- PC Systems with monitors and floppy drives, UPS
- Windows 2000 and Windows XP Operating System software
- MS Office Suite, including Word, Excel and Power Point, CD/VC Player, TV
- Over Head Projector, LCD Projector Slide Projector Scanner
- Laser Printer, Wireless Internet Access (Data card, Tuner card), DVD/VCD Player

Implications

ICT has taken deep roots in education at all levels throughout the country. The demand for teachers who can teach ICT as a discipline, generally in the garb of 'Computer Education', and more importantly, teachers who can integrate ICT seamlessly into the teaching of various school subjects is growing rapidly. This in turn has fuelled the need for well-trained teachers, both in-service and pre-service, thereby ensuring a bright future for ICT in teacher education. (Prasad, S.N.2005) Strength, weakness and innovative methods of each college have to be self analyzed by the authorities and suitable remedial measures are to be taken.

Suggestions for further study

Replication of the study may be taken up at different Levels of Education.

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Mr.D.Thangamani
Research Scholar
Sri Sarada College of Education, Salem

Dr.T.Nagavalli,
Associate Professor
Sri Sarada College of Education, Salem

MATHEMATICAL PROBLEM SOLVING ABILITY IN RELATION TO ACHIEVEMENT IN MATHEMATICS OF HIGHER SECONDARY STUDENTS

P.Ranganathan

Dr.S.Francisca

ABSTRACT

The main objective of the study is to find out the Mathematical Problem Solving Ability in relation to Achievement in Mathematics of Higher Secondary Students. Survey method was adopted in this study. The sample consisted of 1046 higher secondary students. Mathematical Problem Solving Ability test developed and validated by P.Renganathan and S.Francisca (2015) had been used to collect data. Mean, Standard Deviation,'t'-test and Pearson Product Moment Correlation were used to analyze the data. The findings of the study were that there is significant difference between the mean scores of mathematical problem solving ability of higher secondary students with reference to gender, Class and Group. Then there is significant difference between the mean scores of achievement in mathematics of higher secondary students with reference to gender, Class, Group and Nature of School. Significant correlation was found between Mathematical Problem Solving Ability and Achievement in Mathematics of higher secondary students with respect to background variables.

Key words :**Mathematical problem solving Ability Achievement in Mathematics Higher Secondary students**

Introduction

A major goal of education is to help students learn in ways that enable them to use what they have learnt to solve problems in new situations. In short, problem solving is fundamental to education because educators are interested in improving student's ability to solve problems. A mathematical problem solving ability is the ability that is amenable to being represented, analyzed, and possibly solved, with the methods of mathematics. Mathematical problem has been interpreted in various ways by mathematics educators. There is a general agreement, however, that mathematical problems refers to a situation that requires one to make decisions. The term achievement in mathematics is often naively understood in terms of pupil's scores on a certain maths subject. Achievement in Mathematics means one's learning attainments, accomplishments, proficiencies in Mathematics. According to Denis Baron and Harold W.Bernard, the concept of Achievement in Mathematics involves the interaction of three factors namely aptitude for learning, readiness for learning and opportunity for learning. For the present study, achievement in mathematics as a total score obtained by an individual as measured in the test constructed by the investigator in mathematics of the selected topics covering the cognitive domain of the behaviuors namely knowledge, understanding and critical thinking. The investigators expect a functional relationship between Mathematical Problem Solving Ability and Achievement in Mathematics.

Statement of the Problem

- The achievement in Mathematics depends on the Mathematical Problem Solving Ability of the higher secondary students which is highly associated.
- This study investigates the relationship between the above variables among the higher secondary students.

Significance of the Study

The Primary goal of this study is to find out the Achievement in Mathematics involves the higher cognitive process of

human beings. It may be considered as the highest stage of the evaluation in cognitive domain. Acquiring knowledge should help a person distinguish what is right? and what is wrong? To have discerning eye, one has to train his mental faculties.

The ultimate goal of any problem solving ability is to improve students' performance at solving problem correctly. The specific goals of problem solving ability in mathematics are to improve pupil's willingness to try problems, make pupils aware of the problem solving ability, make pupils aware that many problems can be solved in more than one way and improve pupils abilities to get more correct answers to problems.

Objective of the Study

1. To find out the significant difference if any between the mean scores of mathematical problem solving ability and Achievement in Mathematics of higher secondary students with reference to Gender, Class, Group and Nature of School.
2. To find out the significant correlation between mathematical problem solving ability and achievement in mathematics of higher secondary students with reference to total sample.

Hypotheses of the Study

1. There is no significant difference between the mean scores of mathematical problem solving ability of higher secondary students with reference to Gender, Class, Group and Nature of School.
2. There is no significant difference between the mean scores of Achievement in Mathematics of higher secondary students with reference to Gender, Class, Group and Nature of School.
3. There is no significant correlation between mathematical problem solving ability and achievement in mathematics of higher secondary students with reference to Gender, Class, Group and Nature of School.

Methodology

The researchers had adopted descriptive method using survey as a technique to study the mathematical problem solving ability in relation to achievement in mathematics of higher secondary students. The investigators felt that the adoption of survey method would be more relevant and desirable to solve the present problem. The population for the present study consisted of the students studying in higher secondary classes in schools of Virudhunagar, Tuticorin and Madurai. The investigators had drawn a samples of 1046 students of XI and XII classes through simple random sampling technique. The following research tools had been used to collect data

1. Mathematical Problem Solving Ability Test developed and validated by P.Renganathan and S .Francisca.
2. Achievement Test in Mathematics developed and validated by P.Renganathan and S .Francisca.

To analyse the data the following statistical measures had been employed.

1. Mean
2. Standard Deviation
3. 't'-test
4. Correlation Analysis

Table-1

Difference between the mean scores of mathematical problem solving ability of higher secondary students with reference to gender

Variable	Category	Count	Mean	Standard Deviation	t-value	Remarks
Gender	Male	533	30.01	4.638	4.220	S
	Female	513	28.80	4.620		

From the above table it is clear that the calculated value 4.220 is greater than the table value 1.960 at 5% level of significance. Therefore, there is significant difference between the male and female students in mathematical problem solving ability. Comparing the

mean scores the male students' problem solving ability is greater than the female.

Table-2
Difference between the mean scores of mathematical problem solving ability of higher secondary students with reference to class

Variable	Category	Count	Mean	Standard Deviation	t-value	Remarks
Class	XI	552	31.11	2.944	12.996	S
	XII	494	27.53	5.450		

From the above table it is evident that the calculated value 12.996 is greater than the table value 1.960 at 5% level of significance. Therefore, there is significant difference between the mean scores of mathematical problem solving ability of higher secondary students with reference to Class. Comparing the mean scores the problem solving ability of XI class students is greater than the students of XII class.

Table-3
Difference between the mean scores of mathematical problem solving ability of higher secondary students with reference to group

Variable	Category	Count	Mean	Standard Deviation	t-value	Remarks
Group	Bio Maths	545	30.01	4.140	4.253	S
	Computer Maths	501	28.78	5.106		

From the above table it is inferred that the calculated value 4.253 is greater than the table value 1.960 at 5% level of significance. Therefore, there is significant difference between the mean scores of mathematical problem solving ability of higher secondary students with reference to Group. Comparing the mean scores the first group students exhibit greater problem solving ability than their counterparts.

Table-5
Difference between the mean scores of achievement in mathematics of higher secondary students with reference to gender

Variable	Category	Count	Mean	Standard Deviation	t-value	Remarks
Gender	Male	533	22.19	3.665	4.693	S
	Female	513	21.13	3.591		

From the above table it is evident that the calculated value 4.693 is greater than the table value 1.960 at 5% level of significance. Therefore, there is significant difference between the mean scores of achievement in mathematics of higher secondary students with reference to gender. Comparing the mean scores the male students' achievement is better than the female students.

Table-6
Difference Between The Mean Scores Of Achievement In Mathematics Of Higher Secondary Students With Reference To Class

Variable	Category	Count	Mean	Standard Deviation	t-value	Remarks
Class	XI	552	21.31	3.135	3.319	S
	XII	494	22.07	4.146		

From the above table it is clear that the calculated value 3.319 is greater than the table value 1.960 at 5% level of significance. Therefore there is significant difference between the mean scores of achievement in mathematics of higher secondary students with reference to Class. Comparing the mean scores the students of XII standard is greater than the students of XI standard.

Table-7
Difference between the mean scores of achievement in mathematics of higher secondary students with reference to group

Variable	Category	Count	Mean	Standard Deviation	t-value	Remarks
Group	Bio Maths	545	22.48	3.325	7.554	S
	Computer Maths	501	20.80	3.818		

From the above table it is pictured that the calculated value 7.554 is greater than the table value 1.960 at 5% level of significance. Therefore, there is significant difference between the mean scores of achievement in mathematics of higher secondary students with reference to Group. Comparing the mean scores the students of Computer Science and Maths group achieve better than the students of Bio- Maths group.

Table – 9

Correlation between mathematical problem solving ability and achievement in mathematics of higher secondary students with reference to gender, class, group and nature of school.

Variable	Category	Count	Calculated 'r' Value	Table Value	R
Gender	Male	533	0.445	0.622	NS
	Female	513	0.322	0.622	NS
Class	XI	552	0.233	0.062	S
	XII	494	0.594	0.088	S
Group	Bio Maths	545	0.362	0.062	S
	Computer Maths	501	0.394	0.062	S

The above table-5 shows that, there is significant positive correlation between mathematical problem solving ability and achievement in mathematics of higher secondary students with reference to class, group and nature of school. But there is no significant correlation between problem solving ability and achievement in Mathematics of higher secondary student with respect to gender.

Conclusion

The study brings to the limelight that there are significant difference between the mean scores of mathematical problem solving ability of higher secondary students with reference to gender, Class and Group. There is significant difference between the mean scores of achievement in mathematics of higher secondary students with reference to gender, Class, Group and Nature of School. And there is significant positive correlation between mathematical problem solving ability and achievement in mathematics of higher secondary students with reference to Class, Group and Nature of School. The present study is confined only to higher secondary students. Similar studies can be conducted on students of primary, middle, high school students, colleges and universities. The study can be extended to other districts of TamilNadu.

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P.Ranganathan
Ph.D. Research Scholar
St.Ignatius Collgege of Education,
Palayamkottai

Dr.S.Francisca
Research Director
St.Ignatius College of Education,
Palayamkottai

SOCIAL LOAFING: A BOTTLENECK TO GROUP EFFECTIVENESS

Abdul Saleem.K.P
Dr.Sumi.V.S

ABSTRACT

The promise of social life is that through collective action, people can attain needed or valued goals that they would not be able to achieve as individuals acting in action. It is seen that there is something special about group activities, that people pull together in goal-oriented groups and that team spirit spur them into greater efforts that they would likely evidence as individuals. But unfortunately this is not always the case. People have a tendency to loaf in group situations. Here comes the relevance of getting the idea of social loafing. Social loafing issues deserves recognition and an awareness should be generated to avoid the negative consequences of the phenomenon such as reduction in group effectiveness productivity, or quality of the decision making process. Better understanding of how and why people become social loafers is critical to the effective functioning, competitiveness and effectiveness of an organization. This article gives an overview of social loafing, its meaning, theoretical evidence, reasons and suggest some ways to overcome the obstacle which decrease the effectiveness of a group ie., the social loafing.

Key Words: **Social loafing, recognition, effectiveness, competitiveness**

Introduction

The promise of social life is that through collective action, people can attain needed or valued goals that they would not be able to achieve as individuals acting in action. It is seen that there is something special about group activities, that people pull together in goal-oriented groups and that team spirit spur them into greater efforts that they would likely evidence as individuals. The members in the group desired to accomplish the tack but with as little effort as possible. People exert more effort when they perform a task individually than when they do so in a group. So the more people there are to share the responsibility for task accomplishment the less effort each individual is likely to exert. This runs counter to the rationale that organizations use for group decision making. The argument is that the more people involved in the decision then greater the pool of idea (Gibson, Ivancerich and Donnelly, 1985. Jablin and Sussman, 1983). But unfortunately this is not always the case. People have a tendency to loaf in group situations. Here comes the relevance of getting the idea of social loafing.

What is social loafing?

Social loafing is the tendency to reduce individual effort when working in groups compared to the individual effort when working alone (Williams & Karan, 1991). It is seen that social loafing occurs in a group situation in which the presence of others causes relaxation instead of arousal. It is important to note that each group member can only perceive what other group members are doing for work contribution. One member may struggle with the assigned concept, spend many hours of individual effort, actually learn a great deal and yet contribute less than others to the group output. Social loafing issues deserves recognition and an awareness should be generated to avoid the negative consequences of the phenomenon such as reduction in group effectiveness productivity, or quality of the decision making process.

Max, Ringleman, a French agricultural engineer, was the first to investigate the social phenomenon of social loafing. He found that members of larger teams used only half as much

strength compared to one member going up against another. It is found that a team approach often means that there is no quantifiable method of determining which members did what and to what degree and how well. It under these circumstances that social loafing is most likely to occur. The less that an individual contribution is likely to be notices and graded, the more likely social loafing will happen on the other hand, social loafing occurs with much less regularity when the assigned task captures the imagination and interest of the participants.

Theoretical evidences:

The study conducted by Hallmark & Downs (1987) showed that social loafing appear in communication contexts and thus suggest the communicative relevance of social loafing for organizational research. Traditionally it is take the position that group participation brings out the best of its members. But by the social psychologists it is proved that group participation may actually decrease the level of effort exerted by individual group members. Another explanation of the social loafing effect was argued by Jackson & Harkins (1985). They argue that equity theory is a legitimate explanation for the social loafing effect. Equity theory contends that individuals attempt to exert the same effort and receive the same output as other if a person perceives that they are exerting more effort for the same output they will either attempt to decrease their effort or will seek to increase their rewards. Likewise, an individual will seek equity when he/she is exerting the same effort but is receiving less output, exerting less effort but is receiving grater output. The underlying principle is that we feel uncomfortable if we are not being treated equitably.

Gabrenya et al (1982) has found that people exert more effort when they perform a task individually than they do so in a group. The study examined the transcultural generality of social loafing. Karkins & Pretty (1982) found that making the task more challenging or making the task such that each person has a specific and essential role reduces social loafing. Zaccaro (1984) found that making a task appear attractive tends to override the social loafing effect. Albanes & Van Fleet (1985) suggested that the adequate incentives, the use of power and identifiably can overcome social loafing.

Reasons for social loafing:

There are so many reasons which pave the way for social loafing. The main explanation for social loafing is that people feel unmotivated when working with a team, because they think that their contributions will not be rewarded, evaluated or even considered. The study of Albanes & Fleet (1985) confirms this reason for social loafing. Another factor which causes social loafing is the group size. It is seen that the performance is bound to decline with increasing group size. Individuals tends to relax in large groups, they are able to fade into the crowd. They think that they can get a free ride. It is seen that an individual may loaf because of he/she assumes that the actions of others will ensure the attainment of the collection good. Thus social loafing would be affected by both individual perceived dispensability and expectations concerning others' intended efforts. The type of work which is assigned for the group also determines the occurrence of social loafing. If the group is provided with disjunctive tasks, it will lead to the occurrence of social loafing. Harkins& Petty (1982) found that people likely to loaf on difficult tasks. Another cause of social loafing is the fact that individual effort or contributions are often perceived to be unidentifiable when work is performed in groups (Albanes, 1985).

How to eliminate social loafing:

For effectiveness of any activity, removal of social loafing is essential. How to eliminate social loafing? The answer to this is the three C's of motivation

(Rothwell, 2004). The three C's include collaboration, content and choice.

Collaboration:- It is a way to get everyone involved in the group by assigning each member special, meaningful tasks. It is a way for the group members to share the knowledge and the tasks to be fulfilled unfailingly.

Content:- Content identifies the importance of the individual specific tasks within the group. If the group members see their role as that involved in completing a worthy task, then they are more likely to fulfill it.

Choice:- Choice gives the group members the opportunity to choose the task they want to fulfill. Assigning roles in a group causes complaints and frustration. Allowing group members the freedom to choose their role makes social loafing less significant and encourages the members to work together as a team.

Following are some other ways to overcome social loafing:

Keep the group size small: we can decrease the occurrence of social loafing by making the group size small.

Supervision: When the individual feels that he/she is noticed by the supervising member, that individual start to work.

Make the objective of the work transparent to members: research has shown that people will socially loaf less and contribute more to a group the more they like it. By making the objectives clear to the participants will help to encourage contributions above and beyond what might see in general.

Increase the level of moderation: if the work is moderated frequently by any of the member involved, even if the result doesn't directly contribute to the research findings, that still create opportunity to increase their involvement in working

According to Steiner (1992), use of optimizing tasks would make a valuable contribution to the social loafing. The following tasks were suggested for reducing social loafing. All these are found to be helpful for reducing or minimizing the effect of social loafing.

1) Making the task more challenging
2) Assigning specific and essential role
3) Making the task appear attractive
4) Using adequate incentive
5) Use of power
6) Identifiability of the work of members
7) Presentation of unique work

Conclusion:

Better understanding of how and why people become social loafers is critical to the effective functioning, competitiveness and effectiveness of an organization. Organizational communication specialists need to be aware of this phenomenon and the strategies for overcoming social loafing such as under manning, creating unique tasks to increase involvement and assigning specific roles and responsibilities. It is possible that establishing goals prior to the generation of ideas may also be a solution to the social loafing effect. Social loafing has implications in group decision making, committee memberships, development of group norms and the determination of the position of group toward various issues.

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Abdul Saleem K.P
Part-time Research Scholar
Department of Education
University of Calicut,

Dr.Sumi.V.S
Assistant professor in Education & Training
Maulana Azad National Urdu University
Gachibowli, Hyderabad

"The effectiveness of a group of people is not determined by their IQ but how well they communicate".

Daniel Brooks

"A team is not a group of people who work together A team is a group of people who trust each other."

"Unit is strength When there is team work and collaboration wonderful things can be achieved."

Mattie Stepanek

INFLUENCE OF ORGANIZANTIONAL CLIMATE ON TEACHER EFFECTIVENESS IN TEACHER EDUCATION INSTITUTIONS

Dr. Yarramadha Jyothi Basu

Abstract

The present study was conducted to investigate the influence of organizational climate on teacher effectiveness in teacher education institutions. To solve the present problem the investigator employed descriptive method using survey as a technique. A sample of 350 teacher educators was selected from the different teacher education institutions in Telangana Region. Organizational climate scale developed by Sanjyot pethe, Sushma chaudhari and Upinder Dhār and Teacher effectiveness scale developed by Dr.Shallu Purl, Prof.S.C.Gakhar were used for collecting data. For the analysis of data't'-test, and correlation were used. The findings of the study revealed that there is a significant positive correlation between organizational climate and teacher effectiveness in teacher education institutions.

Key Words : **Organizational Climate, Teacher Effectiveness**

Introduction

Organizational climate is comprised of mixture of norms, values, expectations, Policies and procedures that influence work motivation, commitment and individual and work unit or departmental performance. The concept of organizational climate of the organizations and other variables, including job satisfaction of the employees and their performance, began to emerge in the early 60's with the work of Halpin and Croft (1963) in this area. The exercise of refinement and modification of the instrument was carried on by his followers in the field and took into account the relationship of organizational climate and other variables, as organizational effectiveness, administrative styles, teachers' morale, leadership behavior, age, professional qualifications, job involvement, diffusion of innovations, quality of school life, social maturity of pupils and teacher effectiveness. Even though a handful of researches have been done with regard to organizational climate (Thompson, 2005; Allen, 2003; Volkwein and Zhou, 2003; and Johnsrud, Heck and Rosser, 2000). Teachers play a basic and dynamic role in the educational system. It is said that good performance of students depends upon effective teaching of their teachers. One of the most difficult problems in educational research is that of recognizing the teacher effectiveness; i.e., discriminating between more effective and less effective teachers (Coleman, 1998). Teachers' performance is the way in which a teacher behaves in the process of teaching and it is known to be related to teachers' effectiveness. As professionals, college teachers need to be appropriate role models and exhibit to their students a commitment to scholarly values and to life-long learning (Medly and Shannon, 1994).

Significance

The teacher educator holds the most important place in the process of education. So, there exists a greatest need for the teacher effectiveness .This area of teacher effectiveness draws a keen interest of educationists and researchers. The teacher effectiveness has been studied in relation to various teacher related variables. There may be many other factors also, which may have a definite impact on teacher effectiveness .Organizational climate can be one of those factors. The concept of organizational climate has been growing fast and it is often the determining factor of the success and failure of the institution. So, this study will be useful to identify the

prevailing institutional climate in the government, aided, private and minority institutions and their effect on teacher effectiveness. It will be helpful in determining which type of environment is most conducive for teacher effectiveness. Since it is said what the main spring is to watch (or) the engine to the steamship, the head is to the institution. The administrative behaviour of the head of the institution influence the overall climate of the institution. Conversely, heads in different type of managements may exhibit different type of administrative behaviour. The head of the institution is responsible for taking the whole institution with him/her. So, he/she must have a great influence on teacher effectiveness.

Statement of the problem

Influence of Organizantional Climate on Teacher Effectiveness in Teacher Education Institutions.

Objectives

- To find out whether there is any significant difference between the mean scores of organizational climate and its dimensions of teacher education institutions with respect to gender.
- To find out whether there is any significant difference between the mean scores of teacher effectiveness and its dimensions of teacher education institutions with respect to gender.
- To find out whether there is any significant correlation between organizational climate and teacher effectiveness of teacher education institutions.

Hypotheses

- There is no significant difference between the mean scores of organizational climate and its dimensions of teacher education institutions with respect to gender.
- There is no significant difference between the mean scores of teacher effectiveness and its dimensions of teacher education institutions with respect to gender.
- There is no significant correlation between organizational climate and teacher effectiveness of teacher education institutions.

Research Methodology

The investigator has employed descriptive method using survey as technique to study the influence of organizational climate on teacher effectiveness in teacher education institutions. The population of the study consisted of the teacher educators those who are working at different Teacher Education Institutions offering B.Ed., course in Telangana Region. The investigator had selected 350 teacher educators using stratified sampling technique from different teacher education institutions. The tool used for this study were Organizational climate scale developed by Sanjyot pethe, Sushma chaudhari and Upinder Dhār and Teacher effectiveness scale developed by Dr.Shallu Purl, Prof.S.C.Gakhar. The statistical techniques used to analyze the data were mean, standard deviation t-test and correlation.

ANALYSIS

Table: 1

Difference between the mean scores of organizational climate and its dimensions with respect to gender

Dimensions	Categories	Count	Mean	SD	t-Value	R
Results, Rewards and Interpersonal Relations	Male	201	38.45	4.207	1.61	NS
	Female	149	39.13	3.408		
Organizational Processes	Male	201	36.01	6.37	1.23	NS
	Female	149	35.17	6.26		
Clarity of Roles and sharing of Information	Male	201	17.88	3.59	0.06	NS
	Female	149	17.91	3.25		
Altruistic behaviour	Male	201	4.70	1.56	1.68	NS
	Female	149	4.96	1.29		

It is inferred from the above table that calculated t-value is lesser than the table value 1.96 at 0.05 level of significance. This indicates that there is no significant difference between organizational climate and its dimensions of teacher

education institutions with respect to gender.

Table: 2

Difference between the mean scores of teacher effectiveness of teacher educators and its dimensions with respect to gender

Dimensions	Categories	Count	Mean	SD	t-Value	R
Academic and professional knowledge	Male	201	26.19	2.25	0.26	NS
	Female	149	26.13	2.43		
Lesson plan and classroom management	Male	201	72.42	7.19	1.94	NS
	Female	149	73.90	6.95		
Use of motivation reward for student development	Male	201	25.45	3.39	2.15	S
	Female	149	26.15	2.48		
Result, Feedback accountability	Male	201	28.79	3.21	1.59	NS
	Female	149	29.36	3.37		
Personal Qualities	Male	201	50.79	4.81	1.77	NS
	Female	149	51.72	4.85		

It is inferred from the above table that calculated t-value is greater than the table value 1.96 at 0.05 level of significance in the dimension use of motivation reward for student development. This indicates that there is significant difference between teacher effectiveness and its dimension use of motivation reward for student development of teacher educators with respect to gender. But there is no significant difference between teacher effectiveness and its dimensions such as academic and professional knowledge, lesson plan and classroom management, result, feedback accountability and personal qualities of teacher educators with respect to gender.

Table: 3

Correlation between organizational climate of teacher education institutions and teacher effectiveness of teacher educators with respect to total sample

Variable	Mean	SD	Correlation Co-efficient	R
Organizational Climate	98.39	15.23	0.094	S
Teacher Effectiveness	291.64	24.22		

The table 4.5.0 shows the correlation between Organizational Climate and Teacher Effectiveness. The Pearson correlation between Organizational Climate and Teacher Effectiveness is 0.094**. It is inferred that significant correlation at the 0.01 level of significance (1-tailed) between Organizational Climate and Teacher Effectiveness.

Discussion

There is significant difference between teacher effectiveness and its dimension use of motivation reward for student development of teacher educators with respect to gender. While comparing the mean value female teacher educators have more teacher effectiveness than the male teacher educators. This may be due to the fact that female teachers are very sincere in their duties and are more responsible when compare to the male teachers. Thus female teacher educators have more teacher effectiveness than the male teacher educators.

Positive significant relationship is found between the organizational climate and teacher effectiveness of teacher education institutions. This may be due to fact that the importance of Organizational Climate to Teachers' Effectiveness is a significant one. Climate is indicative of how well the teacher is realizing his/her full potential. In an organization with high extent of humanistic relationship, collegiality and participation, the teaching effectiveness is high, making the success of education higher as well.

Conclusion

In the present study most of the teacher educators are of the opinion that teacher effectiveness in based on institutional climate, specially interpersonal relationships and healthy working conditions. This study is evident that there is an healthy relation between teacher education Institutions climate and teacher educator's effectiveness. All the teacher educators are exhibited similar responses in the dimension Altruistic behaviour when concerned to their profession, it is very inevitable. Teaching requires effectiveness as well as qualitative improvement for the betterment of the learners. At present it is felt that there is a decline in the quality of the teaching. For the teacher to be effective, certain amount of autonomy should be provided so that he is able to meet the diverse needs of children. As much as the learner requires space, freedom, flexibility and respect, the teacher also requires the same. The teachers and the head of the institution must share a relationship based on equality and mutual respect to create a better and positive organizational climate.

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Dr. Yarramadha Jyothi Basu
Principal,
Lalitha College of Education
Telangana - 501301

EGOCENTRISM: UNIQUENESS OF EARLY ADOLESCENTS

A. Linsey Cranab

Dr B. William Dharma Raja

ABSTRACT

Early adolescents is a stage which is often marked by declines in academic performance due to changes in developmental processes, family relationships, and the switch to next level of schooling. Changes in the development process include biological and cognitive development, social development, good family relationships and especially the parent-adolescent relationship. Among these developmental processes, cognitive development involve changes in the child's thinking, intelligence and language. This article emphasises about the various cognitive hindrances in the early adolescent stage.

Keywords: **Formal operational thinking, egocentrism, imaginary audience, personal fable**

Introduction

Cognition involves the mental processes of knowing, perception, reasoning, attention, learning, memory, thought, concept formation, language, problem solving, judgement, and the development of behaviour in children (Tomei, 2005). The cognitive domain enables the learner to manage his own internal processes (Martin & Briggs, 1986). The human cognition is flexible and develops in response to environmental experiences, it would seem obvious that every individual, because of their different experiences, will follow a different developmental pattern. And so, any differences in experience will affect the cognitive development of the child. Cognitive development is the way in which our thinking changes with age (Taylor, 2005).

Cognitive changes in early adolescents

Early adolescents are faced with a number of changes in the realm of personality and life style. They grapple with identity questions and deal with the stresses of moving from childhood to adulthood. They also become more self-aware and self-reflective and can view problems from several perspectives rather than only one (Weiten & Lloyd, 2007). Although there are many physical changes that occur during early adolescent stage, cognitive changes play a crucial role at this stage. The shift from concrete operational thinking to the beginning of formal operational thinking, is possibly the most drastic and dramatic change in cognition that occurs in anyone's life. This particular cognitive change contributes to the disequilibrium - the confusion, chaos, volatility and sensitivity. The early adolescents had greater difficulties in processing and integrating their new cognitive experiences on their own (Schave & Schave, 1989).

They can build or understand ideas, abstract theories, or concepts. They develop extreme egocentric and self-centeredness in their behaviour, appearance, thoughts and feelings. The early adolescents begin to show higher order reasoning about the self and its qualities. They give more importance to personal life and they continue to introspect. They had some fluctuations in the level and stability of self-evaluations and it will be more intensed during early adolescence (Brinthaupt & Lipka, 2002).

The inability to differentiate between the world as the adolescents think it should be and the world as it actually is was referred by David Elkind (1968) as adolescent egocentrism. This occurs when high school students use their emerging formal operational capabilities to think about themselves and the thinking of

others. Because adolescents are preoccupied with themselves and how they appear to others, they assume that peers and adults are equally interested in what they think and do. So the child is egocentric in the sense that he is unable to take another person's point of view. The adolescent, on the other hand, takes the other person's point of view to an extreme degree (Snowman & McCown, 2013).

Elkind in 1967 described that the egocentrism tends to limit some areas of cognitive growth. The four characteristics (Yearwood, 1989) of adolescent egocentrism include:

Imaginary audience

Adolescents often believe that they are the centre of others' attention, creating extreme self-consciousness and making them sensitive of criticism. This may turn the adolescent to the desire for privacy (Rathus, 2011).

Personal fable

Adolescents, having the feeling that they are the centre of others' attention, often feel that they are somehow unique and special, acting out extraordinary lives. Elkind says that this special kind of egocentrism may continue in adulthood, underlie much risky and self-destructive behaviour. Without such a belief, people would become hermits, constantly shielding themselves from the very real dangers of contemporary life (Papalia, Olds & Feldman, 2004).

Invulnerability

Adolescent may feel that they are invulnerable to the usual consequences of everyday actions. Their ability to consider the long-term consequences of their actions may be severely limited by their egocentrism.

Idealism

An early adolescent can able to go beyond the limits of reality and into the possible by their cognitive capabilities, adolescents may tend to be very idealistic and become quite critical of others who do not reach these ideals, parents in particular.

Egocentric thinking

The early adolescents acquire formal operational thinking to some extent but with some limitations. In particular these limitations include an tremendous egocentric and self-centeredness in their behaviour, appearance, thoughts and feelings as well as a perceived seriousness of their feelings. They are unable to differentiate easily between what others thinking about them and their own preoccupations. They assume other people are passionate with their behaviour, appearance, thought and feelings as they are. Thus egocentricity in this period ensures that early adolescents are rapidly fluctuating and these highly volatile early adolescents can be intensely sad, angry, excited, and depressed within a short time span (Schave & Schave, 1989).

Peculiar characteristics of egocentric early adolescents

- ✓ Early adolescents are typically self-conscious and self-centered.
- ✓ They experienced different degrees of emotional turmoil, they assume everyone are interested in and constantly evaluating their feelings, appearance and behaviour.
- ✓ They are deeply concerned with the type of clothing to wear for special occasions and how to talk and greet with various people (Snowman & McCown, 2013).
- ✓ They assumed that adults cannot understand the thoughts and feelings of them and also they feel no one else have experiences like them.
- ✓ Egocentrism tends to reduce their ability to critique the construction of own consciousness.
- ✓ Egocentrism reduces their awareness of anything outside of their own immediate experience.

Imaginary audience

The imaginary audience is strong in the early teens but persists too a lesser degree into adult life (Papalia, 2005). They have

implications for the sense of self and cognitively able to reflect on how others see them. Self-evaluations deed increasingly about appearance and popularity, and boys and girls alike tend to think of themselves and feel less attractive once they reach adolescence. They may go extreme in this respect, and think that in any social situation, everyone's attention is squarely on them. The early adolescents change of the way of speaking among groups to gain approval from others. Some of them are overly sensitive to others' remarks and some adolescents explosively angry, unduly violent when other people speak to them (McDevitt, 2013).

Personal fable - A boon or bane?

The personal fable may appear in many forms. Adolescents may fail to distinguish between experiences and feelings that are unique to them and those that are common to humanity. They may underestimate how much other people can relate to their experiences. They think that misfortunes happen to others and not to themselves.

Another part of personal fable is that adolescents have a feeling of invulnerability or indestructibility. They believe that " bad things happen to other people but not to me." They feel that they are very special and unique, they are not vulnerable to the same dangers as other people. This belief may lead to risk-taking behaviour (Lerner et al.,2001).

The personal fable can be adaptive for adolescents, since it protects them from being overwhelmed by fears and experiences that they did not have to deal with as children. The personal fable may also protect and help develop self-esteem at a time when adolescents are particularly vulnerable to criticism.

Reasons for the emergence of adolescent egocentrism

The entry of adolescents into new social environment requires a greater protection of the self and this could lead to an increase in egocentrism (Peterson & Roscoe, 1998)

Parents appear unaware about the child's emotional state, and compare them with other children.

Identity development may lead to feelings of uniqueness and invulnerability and subsequently egocentrism manifests as personal fable (O'conner & Nicolic, 1990)

The greater self-consciousness and ego centricity of adolescent girls in comparision with adolescent boys could be the result of socialization (Hudson, & Gray, 1986)

Parental rejecton enhances self-consciousness, and subsequently, also egocentrism (Riley, Adams & Nielsen, 1984)

Revealing from Studies

Burka and Glenwick (1978) *say that high egocentrism associated with shy, anxious behaviour for girls and acting-out and learning difficulties for boys. The findings of* Riely, Adams and Nielson (1984) examine that perceived parental support was associated with diminished egocentrism, while perceived parental rejection was predictive of heightened self-consciousness. *Egocentrism contributes to unrealistic optimism (Weinstein & Lachendro, 1982).* The existence of the imaginary audience declined with age, as did the personal fable, although the latter did not decline to the same extent as the former (Enright et al.,1979). According to O'Conner (1995), *Identity development was more strongly and consistently related to egocentrism.*

To quit from egocentrism

Early adolescents with a pessimistic style tend to attribute their setbacks to internal, stable and global factors. These attributions make them feel about themselves and pessimistic about their ability to handle challenges in the future. The following are some ways to minimise egocentric attitude (Weiten & Lloyd, 2007).

- ✓ Motivating the early adolescence to develop the self-enhancement. Self-enhancement motive helps individuals

to seek positive information about themselves.

- ✓ Making them to recognize and control over their self-image.
- ✓ Enhancing the self-esteem.
- ✓ Recognizing the destructive potential of negative self-talk and bring it to halt.
- ✓ Cultivating the habit of maintain a positive supportive outlook towards other people.
- ✓ Making them to recognize the reality so that they may not condemn themselves for their failure.

Recommendations

Early adolescents are faced with several developmental changes. At this stage self-concept, academic motivation, and achievement levels of adolescents sometimes decline drastically. A teacher can create a supportive classroom environment in which students can meet their social, emotional and cognitive needs (Snowman & McCown, 2013) by the following ways:

- ✓ Lessening competition and social comparisons among students by eliminating ability grouping
- ✓ By avoiding motivation destroying activities and creating a friendly, supportive classroom environment
- ✓ Considering students' suggestions about classroom rules, seating arrangements, homework assignments and time spent on various tasks.
- ✓ By listening and understanding students point of view

To a large extent, early adolescents are extremely concerned with the way they look to others and others have the same opinion like them. The high self consciousness lead them to abnormal behaviours and adjustment problems. We know that parents are the first teachers and teachers are the second parent, they play a vital role in handling the early adolescents with egocentrism. Both parent and teachers have to pay attention on the cognitive changes in an early adolescent and this will make the child to face any biological, social and cognitive challenges.

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A. Linsey Cranab
UGC-Junior Research Fellow
Manonmaniam Sundaranar University,
Tirunelveli- 627 012

Dr B. William Dharma Raja
Head i/c
Department of Education,
Manonmaniam Sundaranar University,
Tirunelveli- 627 012.

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PALAYAMKOTTAI – 627 002

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7	Sr.L.Vasanthi Medona Assistant Professor in Mathematics Education 9442075912 vasanthimedona@gmail.com	Mathematics Education Educational Statistics Educational Administration Special Education