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FUNCTIONING OF SCHOOL COMMITTEES AT PRIMARY LEVEL

1

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INTRODUCTION

The role of the school committees is important in the field of education. Their contribution for the benefit and development of the school is prominent. Simultaneously, the role of the HM and staff is also important in the field of primary education. The HM of the school is acting as the member convener of the school committee in organizing the meetings, operationalization of accounts etc., and also in the extension of the support to the committee. Therefore, the functioning of the school committee is vital in the field of education in general and it is important and particular in primary education. Hence, school committee having its prime importance. When the school committee can well aware on the area related to them and understand their role in the field of school education then only the objectives of UEE can be fulfilled. The school committee must take initiation for voluntary participation in school developmental activities and also must extend their fullest support for the prosperity of the school children. As per the literature available and the experience of the researcher, the role of school committees is indispensable in the school development areas. Hence, the

researcher selected this area to study how the SEC extending support for the benefit of the school developmental aspects, and the perceptions of HMs of primary schools with regard to the functioning of school committees. Sarma (1999) Alvender (2004) and Narsimha Murthy (2004) studied on the functioning of village education committees found that the support received by the community towards enrolment, retention and participation in school activities was encouraging. Keeping in view the functionalities and roles, the researcher selected this area to prosecute a qualitative research work in Srikakulam district. Hence the researcher undertaken 'A qualitative study of the effective functioning of school committees at primary level, deals with the reception of the respective head master of the selective sample school on the functioning of SEC, and documentary evidence were also taken.

The findings of this study provided same avenues for further research effectiveness on the functioning of SEC.

STATEMENT OF THE PROBLEM

Functioning of school committees at primary level.

OBJECTIVES OF THE STUDY

The researcher formulated the objective for his research study purpose were

- ★ To know the perceptions of head masters of the selective sample schools on the functioning of school committees.

HYPOTHESES

The researcher formulated the hypotheses as follows-

1. There is no significant differences in between the perceptions of male vs female, mandal parishad vs government.
2. Mandal parishad vs ITDA management respondents.
3. Above graduation and below graduation category.
4. 20 to 40 years and above 40 years age group category.
5. Below 20 years and above 20 years professional experience.

METHODOLOGY

Sample

The present study is concerned with the study of the functioning of School

committees of Srikakulam district. All the SEC's of the region would constitute the population. It was difficult to collect data from the entire population. Therefore, sampling was restricted to three mandals in Srikakulam district.

For this qualitative study, the researcher selected only three mandals viz., The mandals are as follows:

1. Seethampeta Mandal (Tribal)
2. Palakonda (Urban-Municipal) and Palakonda Rural

In the year 1998, government of A.P formulated an Act on school education committees known as People's Participation 1998 and implemented in the year 1998.

This act came into force and the system of school committees prevailing at the school level. Later, Right to Education Act 2010 came into force and emphasized the role of school management committees.

Population

The researcher had selected 60 schools from the selected category of the tribal, Urban and Rural areas.

Table 1
Particulars of Sample Selected for the Study

S. No.	Locality	Name of the mandal	No. of schools selected	No. of Head masters
1.	Tribal/ITDA	Seethempeta	04	04
2.	Rural/MP	Palakonda	48	48
3.	Urban/Govt	Palakonda	08	08
		Total	60	60

Table 2
Sample Classification

1.	Sex	Male 41	Female 20
2.	Type of management I.T.D.A	Mandal Parishad 48	Government 08
3.	Educational Qualification	Gradution and above 39	Below Gradution 21
4.	Age	20-40 years 23	Above 40 years 37
5.	Professional Experience	Below 20 years 23	Above 20 years 37

Tool used

The questionnaire was developed by the researcher basing on the experience and the available literature. The device discussed below in detail.

Questionnaire for head master of a primary school

The questionnaire has been designed to know the perceptions of the head masters of the sampled schools on the functioning of SEC. The items mainly focused in this

The issues mainly covered were

★ Discussed items during the meeting, last meeting by the SEC, opening and operationalisation of accounts contributions received from the community, conduct of social mapping exercises by the SEC, adoption of households for intensive action for enrolment and retention, sending of his own children to the local government school by the head master, reasons

for not sending to government school by the head master, steps taken by SEC for enrolment, for arresting of drop outs, cooperation received from the Mothers Association towards developmental activities, utilization of services of Mothers Association by the SC towards ECES and girl child education, steps taken and results by SC with regard to enrolment and drop out, contribution of SEC with regard to monitoring of the school grants and teacher grants, privision of infrastructure facilities, regularity of teachers attendance, review of children progress, maintainence of records, conduct of festivals and support required from various organizations etc.

★ Perception of the head master on the support of SC in discharging duties, suggestions for effective functioning of SC, items to be suggested in the SC's to monitor, difficult level in dealing the SEC.

The purpose of this tool is to ascertain the opinion of head master of a primary school on the functioning of SC.

The results emerged through this study, may be useful and show avenues for further exploration.

Table 3
Particulars of Averages, S.D and CR of Socio-economic Variables

Sl. No	Variable	N	Average	S.D	Value of CR
(1)	Sex				
	Male	40	99.3	14.7	0.36NS
	Female	20	98.0	12.2	
(2)	Type of Management				
	Mandal Parishad	48	99.5	14.6	1.18NS
	Government	08	94.3	10.8	
(3)	Type of Management				
	Government	08	94.3	94.3	0.16NS
	I.T.D.A	04	100.5	12.5	
(4)	Type of Management				
	I.T.D.A	04	100.5	12.5	0.85NS
	Mandal Parishad	48	99.5	14.6	
(5)	Educational Qualification				
	Graduation and above	39	97.0	13.7	1.51NS
	Below Graduation	21	102.3	12.5	
(6)	Age				
	20-40 yrs	23	94.5	15.3	1.85NS
	Above 40 years	37	101.5	12.5	
(7)	Professional Experience				
	Below 20 Years	23	94.5	11.2	2.32*
	Above 20 Years	37	101.5	12.4	

* Significant at 0.05 level NS- Not Significant

FINDINGS

★ It was found that the head masters of male and female category respondents expressed one and the same opinion towards the functioning of school committees.

★ It was found that all head masters irrespective of the management i.e., Mandal Parishad, Government and I.T.D.A., expressed one and same opinion toward the functioning of school committees. It shows that all the areas i.e., Rural, Urban and Tribal

locality head masters were having the one and same opinion towards the functioning of school educational committees and were effective.

- ★ The educational qualification of the respondents was not a determining factor on perceiving the effectiveness of the functioning of school committees. The head masters who are having above graduation qualification and below graduation qualification are not differed in their perceptions and expressed one and the same opinion about the functioning of school committees.
- ★ The age of the respondents was not a determining factor in perceiving the effectiveness of the functioning of school committees. The head masters who are having 20-40 years age group and below above 40 year age group are not differed in their perceptions and expressed one and the same opinion about the functioning of school committees.
- ★ It was found that professional experience of the headmasters was the determining factor towards the functioning of school committees. The above 20 years professional experience category respondents perceived more than that of the below 20 years professional experience category towards functioning of school committees. This was due to experience of respondents. The study indicates that more the professional experience may be the cause for high perception towards the functioning of school committees.

Observations

- ★ Irrespective of the locality in almost all the areas minute's books were maintained with utmost care and recording the events discussed on the days meeting.
- ★ Regarding the maintenance of the passbook it was observed that the operationalisation of the accounts was also very encouraging and the procedure in vogue was followed.
- ★ Regarding the maintenance of resolution book it was observed that the resolution book was maintained and the resolution were recorded and got signed by the headmaster and the members of the committee. It clearly shows that the maintenance of record was also encouraging.
- ★ Regarding the maintenance of visitor's book, irrespective of the locality, in all the areas, it was maintained properly.
- ★ As per the schedule, it was observed that irrespective of the locality, in almost all the areas the maintenance of the records and the procedure for recording are also been observed with meticulous care.

IMPLICATIONS OF THE STUDY

On the whole analysis of this Study helps to draw very interesting conclusions regarding the functioning of school committees as revealed by the head masters.

A major educational implication of the study has been indentified that all the head masters of the primary schools were perceived that the functioning of school

committees was effective. This implication indicates that the role of the school committees at primary level is effective and the functioning of school committees assumes highest importance for the school developmental activities. The better the role of the school committees, the better will be the development of the school.

Irrespective of sex, type of management, educational qualifications and the age of the respondents all perceived one and the same opinion about the functioning of school committees.

Discussed items during the meeting, last meeting by the SEC, opening and operationalisation of accounts, contributions received from the community, conduct of social mapping exercises by the SEC, adoption of households for intensive action for enrolment and retention, sending of his own children to local government school by the head masters, reasons for not sending to government school by the headmaster, steps taken by SEC for

enrolment, for arresting of drop outs, cooperation received from the Mothers Association towards developmental activities, utilization of services of Mothers Association by the SC towards ECES and girl child education, steps taken and results by SC with regard to enrolment and drop out, contribution of SEC with regard to monitoring the school grants and teacher grants, provision of infrastructure facilities, regularity of teachers attendance, review of children progress, maintenance of records, conduct of festivals and support required from various organizations etc were encouraging and positive.

The overall conclusion emerging out of the findings was that, above 20 years Professional experience category respondents perceived more towards the functioning of School Committee than that of their counterparts.

This study consists more in throwing up useful findings and avenues for further exploration in the field of functioning of School Committees at primary level.

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A STUDY OF CRITICAL THINKING, EMOTIONAL INTELLIGENCE AND THEIR EFFECT ON ACADEMIC ACHIEVEMENT IN SCIENCE OF SECONDARY SCHOOL STUDENTS

2

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Education which aims at helping an individual towards the realization of the best and most human qualities he finds in himself, has lagged behind this objective in most of the instances. In India and a few other countries, schools have never been free from the danger of producing subservient conformists, instead of free citizens. The important aims of education are being the cognitive, affective and psycho - motor, most of the schools give much priority for the transference of knowledge neglecting affective and psycho – motor aims. Students must be educated to face an unpredictable future, for which they have to be exposed to the situations in which their thinking ability operates critically, emotional brain is rightly used and actions come out. This would definitely result in exhibiting higher academic performance.

Critical Thinking

'I think, so I exist' (Descartes). This implies that thought is the very essence of human existence. Thinking therefore represents subtle and complex psychological

process. This ability of thinking is present in human beings in different forms such as critical thinking, creative thinking, logical thinking, lateral thinking etc.

Critical thinking consists of mental process of discernment, analyzing and evaluating. It includes all possible processes of relative upon a tangible or intangible items or in order to form a solid judgement that reconciles scientific evidence with common sense. Critical thinking obviously is based on concepts and principles, not on hard and fast procedures. Critical thinking means correct thinking in the pursuit of relevant and reliable knowledge and about the world. A person who thinks critically can ask appropriate questions, gather relevant information, efficiently sorts the information, reasoning logically and comes to a reliable and trust worthy conclusions about the world that enable one to live and act successfully in it.

Emotional Intelligence

'Abilities such as being able to motivate one self and persist in the face of

frustrations, to control impulse and delay gratification, to regulate one's moods and keep distress from stamping the ability to think, to empathize and to hope' is known by emotional intelligence (Daniel Goleman).

Emotional Intelligence links strongly with the concepts of love and spirituality, bringing compassion and humanity to work. Emotional Intelligence is a type of intelligence in which an affective essence is sprayed. This Emotional Intelligence is referred to the capacity of recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in us and in our relationships. Thus Emotional Intelligence includes five basic personal and social competencies such as i) Self - awareness, ii) Self - regulation, iii) Motivation, iv) Empathy and v) Social skills.

There are hundreds of emotions, along with their blends, variations and mutations. The categorization of the main emotions includes anger, depression, anxiety, happiness, love, surprise, disgust, embarrassment etc.,. Ancient Indian sages spoke about the Navarasa's or Nine emotions. According to them the Navarasa's are the emotional feelings expressed by a person due to the stimuli he gets out of the situation. These nine rasa's are quite distinct in their expression. These are Shringara, Hasya, Karuna, Roudra, Veera, Bhayanak, Beebhatsa, Adbhuta and Shantha.

RATIONALE FOR THE STUDY

Every organism that exists on the earth, will have the ability to adjust, and the ability to learn, but it is only the human species which possess one more ability, ie.,

ability to think. That is why human beings are called intellectual animals. Therefore, in the educational domain it is the utmost responsibility of the teachers to enhance the thinking dimension of the learner that too being critical in kinds of their thinking. Unless one thinks about the pros and cons of the situation in which he is involved, cannot find a solution. Therefore, teachers should plan certain activities that are to be provided in the class room in order to make students' think and act. If this thinking is critical by nature that certainly influence the academic achievement of the learner. In the recent years, An Emotion Intelligence matters much in the field of psychology and educational endeavour. Mere considering the intelligence of the learner may not yield better academic performance but giving more consideration for the use of Emotional Intelligence by learner will certainly raise the academic performance.

Now a days, most of the school teachers believe that academic achievement is directly related to the intelligence only. Perhaps this is a misconception that they have developed, but in real sense academic achievement certainly depends on many more psycho - sociological factors. Therefore, there arises a need to study the effect of critical thinking and Emotional Intelligence on the academic achievement of students.

STATEMENT OF THE PROBLEM

The problem was stated as A study of Critical Thinking, Emotional Intelligence and their effect on academic achievement in science of secondary school students.

OBJECTIVES OF THE STUDY

- ★ To study the relationship between critical thinking and academic achievement.
- ★ To study the relationship between Emotional Intelligence and academic achievement.
- ★ To study the interaction effect of critical thinking and Emotional Intelligence upon academic achievement.

HYPOTHESES

1. There is no significant relationship between critical thinking and academic achievement.
2. There is no significant relationship between Emotional Intelligence and academic achievement.
3. There is no significant main and interaction effect of critical thinking and Emotional Intelligence upon academic achievement.

METHODOLOGY

Survey method was adopted.

Variables

Independent variables

Critical Thinking and Emotional Intelligence were considered as independent variables.

Dependent variables

Academic achievement was considered as dependent variables.

Sample

The study was conducted on a stratified proportionate random sample of 600

secondary school students studying in IX standard from 4 government, 4 private aided and 2 private un-aided high schools in Tumkur district of Karnataka. While selecting the sample due consideration was given to the factors like sex, type of school, medium of instruction and locality.

Statistical Techniques

't' – test, two way ANOVA and product moment correlation, were used.

Tools used

1. Critical Thinking – Test in Physics (CT – TIP)

The investigator has constructed and validated this tool called Critical Thinking – Test in physics. The test consists of 57 items under 7 categories such as comparison, identifying pros and cons, reasoning, distinguishing facts, and opinions, hypothesizing, identifying assumptions and identifying relevant and irrelevant. In order to validate, item analysis was carried out and items with index of discrimination above 0.30 were selected. The final test consists of 35 items. The reliability of the test was established by using split – half method, and it was found to be 0.672.

2. Emotional Intelligence Inventory (EII)

This inventory was developed by Dr. Shailendra Singh. This inventory consists of 60 statements evenly distributed in 5 dimensions of

Emotional Intelligence. There are twelve positively worded statements in each one these dimensions. These could be scored on 5 point scale that is Strongly agree (SA), Agree (A), Uncertain (U), Disagree (DA) and Strongly disagree (SDA).

3. An Achievement Test in Science

This test was constructed by the investigator to measure the academic achievement index of IX standard students in science subject. This test consists of 100 multiple choice type items. These scored by awarding one mark for each correct answer and zero mark for wrong answer.

RESULTS AND DISCUSSIONS

Table 1

Product moment correlation among Academic Achievement, Critical Thinking and Emotional Intelligence

Variables	Academic Achievement	Critical Thinking	Emotional Intelligence
Academic Achievement	1.0000	0.846 **	0.348 **
Critical Thinking	0.846 **	1.0000	
Emotional Intelligences	0.348 **		

** Significant at 0.01 level.

Table 1 shows that the Academic Achievement, Critical Thinking and Emotional Intelligence are highly related to each other.

Table 2

Mean, SD and 't' values of Academic Achievement over Critical Thinking and Emotional Intelligence

Variables		N	Mean	S.D.	't' - value
Critical Thinking	Low	177	46.22	6.642	32.817 **
	High	162	75.41	9.582	
Emotional Intelligence	Low	152	53.13	13.160	8.348 **
	High	152	65.40	12.471	

** Significant at 0.01 level.

Table 2 shows that, the mean difference between low and high levels of Critical Thinking is found to be 29.19 and 't' value 32.817 which is found to be significant at 0.01 level. Similarly the mean difference between low and high levels of Emotional

Intelligence is found to be 12.27 and 't' value 8.348 which is also found to be significant at 0.01 level. Thus it is concluded that students with high level of Critical Thinking and Emotional Intelligence performed better in Academic Achievement than the students with low level of critical thinking and Emotional Intelligence.

From tables 3 and 4 it was found that the analysis of variance of academic Achievement by Critical Thinking and Emotional Intelligence found to be significant at 0.01 level with their F –

values 276 .886 and 225.470 respectively for their main effect. The F – value 7.860 for two – way ANOVA for the interaction effect of Critical Thinking and Emotional Intelligence is also found to be significant at 0.01 level. Thus, it is concluded that both Critical Thinking and Emotional Intelligence had main and interactive effect on the Academic Achievement of students. It is also found that students with high levels of Critical Thinking and Emotional Intelligence achieved better than those with moderate and low levels of Critical Thinking and Emotional Intelligence.

Table 3
Mean and SD of Academic Achievement by their low, moderate, and high levels of Critical Thinking and Emotional Intelligence

		Critical Thinking											
		Low			Moderate			High			Marginal Mean		
		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Emotional Intelligence	Low	97	45.39	6.57	43	63.74	8.48	12	77.58	10.23	152	53.13	13.16
	Moderate	66	46.98	6.96	146	60.70	7.99	84	75.96	8.48	296	61.97	13.01
	High	14	48.36	4.72	127	60.56	8.15	66	74.30	10.74	152	65.40	12.47
Marginal Mean		177	46.22	6.64	261	61.16	8.16	162	75.41	9.58	600	60.60	13.68

Table 4
Summary of two – way ANOVA of Academic Achievement by Critical Thinking and Emotional Intelligence

Source of variance	DF	Sum of Square	Mean sum of Squares	F – Value
Critical Thinking	2	36745.534	18372.767	276.886 **
Emotional Intelligence	2	16181.431	8090.715	225.470 **
2 – way interaction	4	564.064	282.032	7.860 **
Error	591	39215.765	66.355	

** Significant at 0.01 level

FINDINGS

- ★ There is a significant effect of Critical Thinking on the Academic Achievement in science of secondary school students.
- ★ There is a significant effect of Emotional Intelligence on the Academic Achievement in science of secondary school students.
- ★ There is a significant main and interactive effect of Critical Thinking and Emotional Intelligence on the Academic Achievement in science of secondary school students.

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CONCLUSION

The study revealed that students with high levels of Critical Thinking and Emotional Intelligence will certainly perform better in academics. Students who thinks critically and copes up well with the emotional attributes are better in their academic achievement. Therefore the teachers in the classrooms must give due consideration for tapping the students brain for the better use of Critical Thinking and Emotional Intelligence. Therefore there is a responsibility on the teachers to shift away from the traditional or knowledge based means of teaching to experience based, activity oriented learning situations in the classrooms.

STUDY OF ACHIEVEMENT MOTIVATION AMONG ADOLESCENTS

3

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INTRODUCTION

'The willingness of the students to actively participate in the academic process' is defined as motivation. Achievement Motivation (AM) has been defined as 'Combination of psychological forces, which initiate direct and sustained behavior towards successful attainment of some goals.'

The concept of achievement has been developed by McClelland, Atkinson, Clark and Lowell (1953). They defined this concept as 'concern over competition with standard of excellence'. It is a competency doing the thing better than someone else. It is the desire or tendency to do things rapidly as possible and to overcome obstacles and attain a high standard. AM refers to a person's efforts to master a task, achieve excellence, overcome obstacles, perform better than others and take pride in exercising talent. AM is also defined as 'a habitual desire to achieve goals through one's individual efforts.' Individual's vary quite a lot in this motivation. Managers, coaches and many type of leaders are very dividends in terms of high performance and leads to excellence (Kamalesh; 2006).

Thus, AM is the desire to do better, to achieve unique, accomplishment, to compete with standard of excellence and to involve oneself with long term achievement. Researcher reviewed many researches related to AM. Senger, Sing and Srivastava (1985) reported that SC adolescents had less desire for achievement and recognition. Pareek (1970) reported that poverty leads to low need for achievement and powerlessness. The study of Jha Suman, Jha Jyoti & Jootsna Kumari (2007) concluded that the four caste groups namely, Bantar, Musahar, Paswan and Ram did not differ significantly on AM and anxiety. Sharma (1978) found that low caste students have lower AM in comparison to higher caste students. Krishana (1986) found that Christian tribal students have higher AM as compared to the non-Christian tribal students. Prasad (1984) obtained no significant difference between socio-economically advantaged and dis-advantaged students with regard to AM. Mehta & Mehta (1974) observed the relationship between social classes and need of achievement is not very conclusive. Alam (1992) observed that the level of AM varied with the level of socio-economic status and type of culture in a cross cultural

study of achievement of African and Indian students. Srivastava (1998) found that African students have higher scores than Indian students on AM. Pathak and Jha (2003) reported that socio-economically privileged group has higher AM than the unprivileged group. Verma, Karenbala and Asthana, Madhu (2007) concluded that knowledge of reservation policies of Indian government has positive impact on AM. Results show that the significant increase in AM level of SC/ST and OBC while decrease in forward class. Ali, Jawed and Abdul Raheman (2012) compared the AM of male and female weight lifters of Manipur. The results revealed that there is no significant difference between AM mean scores of male and female weight lifters of Manipur. The level of AM of these weight lifters was found in the moderate level. Khan, Haider and Ahmad (2011) reported that there is no significant difference between AM of male and female basket ball players. Kumar and Kalidasan (2011) found that there is no significant difference between AM of Tamil Nadu and Karnataka fresher's and experienced ball badminton players. Awasthi, Bina (2002) found that male students had significantly higher AM than female students. The high intelligent students had significantly higher AM than the lower intelligent students and the students coming from high socio economic status background had significantly higher AM than those having lower socio economic status background. Mehta (1969) found that the socio-economic status of pupil as such was not significantly related to AM. Desai (1972) also found that the socio

economic status did not show relationship with children's achievement. Shrivastava and Tiwari (1967) found that upper class people have high AM. Positive relationship was found between socio-economic status and AM by Chaudhari (1971). Mehta (1960) found low positive significant correlation between AM and intelligence. Desai (1970) found low and positive relations, whereas Chaudhari (1971) could not found positive relationship between AM and intelligence. Good (1973), Heckhausen (1967), Lindquist (1959) and Hurlock (1967) also studied AM in relation to a number of factors like intelligence, level of aspiration and creativity. Pathak, Minakshi & Bajpai, Pramodkumar (2012) found that cohesion, conflict, acceptance and caring relationship dimensions and organization areas of family climate are significantly and positively correlated to AM whereas expressiveness, independence, active recreational orientation, personal growth and control dimensions of family climate do not contribute to academic AM. Goswami, Minakshi (2000) concluded that the children of working mother were more achievement oriented than the children of non-working mothers.

The need of AM is influenced by individual's wishes for what they want to achieve, their interest, experiences, personality patterns, personal values, sex, socio-economic status and even by caste background. Apart from personal factors, there are many environmental factors such parental as ambitions, social expectations, peer pressures, sex appropriateness of

aspiration, cultural traditional, social values and competition which influence the AM (Hurlock; 1997). Parental and social expectations from boys and girls vary. Every culture and society have prescribed roles for boys and girls, are appreciated, when they are in accordance with the prescribed norms & roles of society.

Students need AM to acquire values and knowledge. AM is the main factor in any type of learning. In order to make learning meaningful, it is necessary that students motivated before are made to learn. Emphasizing the importance of motivation in learning process, Kelle has stated that motivation is the central factor in the effective management of the process of learning. Some types of motivation must be present in all learning. Therefore, before going to teach the subject, teacher should acquaint the AM of the students. If he is aware about his students, he can create the learning environment in the classroom so that learners can be motivated for learning and interest can be created among them. He can organize the learning activities to motivate the students. Keeping in mind all these things, present study was undertaken.

OBJECTIVES OF THE STUDY

- ★ To study the Achievement Motivation level of the adolescents.
- ★ To study the Achievement Motivation among the adolescents in relation to their gender.
- ★ To study the Achievement Motivation among the adolescents in relation to their locality.

HYPOTHESES

1. There is no high level Achievement Motivation among adolescents.
2. There is no significant difference between Achievement Motivation mean scores of adolescents in relation to their gender.
3. There is no significant difference between Achievement Motivation mean scores of adolescents in relation to their locality.

DELIMITATIONS OF THE STUDY

The study was delimited to the adolescents in age range 14 to 19 years in Jalgaon District, of Maharashtra state. Only the AM levels among the adolescents in relation to gender and locality were studied.

METHODOLOGY

Population and Sample

The population of the study comprised of adolescents of Jalgaon District. For the present study, 446 adolescents were selected by using stratified random sampling method from Secondary and Higher secondary schools situated in Jalgaon district. The sample included 230 rural adolescents and 216 urban adolescents.

Tool Used

Achievement Motivation Scale by Mishra and Srivastava was used. This scale consists of 24 forced choice items to be responded as 'Yes' or 'No'. Maximum score on this scale is 24 and minimum 0. A high score reflects high AM.

Statistical Techniques

The collected data were analyzed by using descriptive statistics and inferential statistics. Descriptive statistics was used for studying the distribution of AM scores of the adolescents and inferential statistics was used for testing the null hypotheses.

Data collected through Achievement Motivation Scale were analyzed by using statistical techniques. The Mean, Median, Mode, Standard Deviation (SD), Skewness and Kurtosis were computed for respective groups and 't' values were calculated for testing the null hypotheses.

DATA ANALYSIS AND INTERPRETATION

Table 1

Mean (M), Median (Mdn), Mode (Mo), Standard Deviation (SD), Kurtosis (Ku) and Skewness (Sk) of Achievement Motivation Scores of Adolescents

Adolescents	No	M	Mdn	Mo	SD	Ku	Sk
All Adolescents	446	18.92	19.00	17.00	4.82	1.11	- 0.19
All boys	223	19.67	20	21	4.64	0.53	- 0.23
All Girls	223	18.17	18.00	17.00	4.90	1.74	- 0.11
Rural	230	17.85	18.00	18.00	5.16	0.88	- 0.33
Urban	216	20.06	20.00	21.00	4.16	0.29	- 0.52

Table 1, shows that the mean, median and mode of AM scores of adolescents are respectively 18.92, 19.00 and 17.00. It shows that AM was normally distributed for adolescents and the mean, median and mode of distribution for all boys are 19.67, 20.00 and 21.00 respectively whereas for girls 18.17, 18.00 and 17.00 respectively. This implies that AM was normally distributed for both the groups. The means of AM of two the groups were 19.67 & 18.17 respectively which were nearly equal.

The mean, median and mode of distribution for all rural are 17.85, 18.00 and 18.00 respectively whereas for urban students 20.06, 20.00 and 21.00 respectively. This implies that AM was normally distributed for both the groups. The average Achievement Motivation of urban boys is greater than rural boys.

Further the calculated values of skewness for groups of boys and girls were -0.23 and -0.11 respectively. This means that the distributions of AM scores were negatively skewed as scores tend to trial

off to the left of the curve. The kurtosis was calculated to be 0.53 and 1.74 for boys and girls. It means that the distribution is platykurtic for both the groups.

Again the calculated values of skewness for groups of urban and rural adolescents were -0.33 and -0.52 respectively. This means that the distributions of AM scores were negatively skewed as scores tend to trail off to the left of the curve. The kurtosis

was calculated to be 0.29 and 0.88 for urban and rural adolescents. It means that the distribution is platykurtic for both the groups.

The levels of AM among boys and girls are decided in the AM scores limits which are mentioned in the manual of the scale. As per score limits, the boys and girls were distributed in the various levels of AM which is presented in the following table.

Table 2

Achievement Motivation Scores Distribution Among Boys and Girls

Achievement Motivation Level	Scores		Scores		Percentage	
	Boys	Girls	Boys	Girls	Boys	Girls
High	23 & above 23	23 & above 23	57	36	25.56	16.14
Above Average	19 – 22	20 – 22	83	63	37.22	28.25
Average	17 -18	17 – 19	27	61	12.11	27.35
Below Average	15 – 16	14 -16	29	19	13.00	8.52
Low	11 -14	11 -13	22	35	9.87	15.70
Very Poor	Below 10	Below 10	05	09	2.24	4.04

Table 2 shows that 25.56 % of boys fall in high level of AM whereas only 16.14 % of girls fall in high level of AM and 37.22% and 28.25% of boys and girls respectively fall in above average level of AM. This means the number of boys in

high and above average level of AM is found higher than girls. Though the AM level among boys is found higher than girls but the number of adolescents having high level of AM is very less. That means most of the boys and girls fall in average

level of AM. Therefore, it can be said that adolescents is average and Achievement Motivation level among Motivation among girls is less than boys.

Table 3

Mean (M), Standard Deviation (SD) and ‘t’ Value of Achievement Motivation Scores of Boys and Girls

Sr. No.	Adolescents	No of Adolescents	Mean	SD	‘t’ value	Critical ‘t’ value	Result
1	Rural Boys	115	18.15	5.12	0.87	2.59	Not significant
	Rural Girls	115	17.56	5.20			
2	Urban Boys	108	21.29	3.40	4.23	2.59	Significant
	Urban Girls	108	18.33	4.44			
3	All Boys	223	19.67	4.65	3.23	2.59	Significant
	All Girls	223	17.93	4.86			

Table 3 shows that the mean and SD of rural boys is 18.15 and 5.12 whereas the Mean and SD of rural girls is 17.56 and 5.20 respectively. The ‘t’ value is 0.87 and it is found not significant at 0.01 level of significance. This indicates that the mean AM scores of rural boys and girls not differ significantly. So, the null hypothesis ‘There is no significant difference between achievement motivation mean scores of rural boys and girls’ is accepted.

The mean and SD of urban boys is 21.29 and 3.40 whereas the mean and SD of urban girls is 18.33 and 4.44 respectively. The ‘t’ value is 4.23 and it is found significant at 0.01 level of significance. This indicates that the mean achievement motivation scores of urban boys and girls differ significantly. So, the null hypothesis ‘There is no significant difference between

achievement motivations mean scores of urban boys and girls’ is rejected. The mean achievement motivation score of urban boys is significantly higher than the mean achievement motivation score of urban girls.

The mean and SD of all boys is 19.67 and 4.65 whereas the Mean and SD of all girls is 17.93 and 4.86 respectively. The ‘t’ value is 3.23 and it is found significant at 0.01 level of significance. This indicates that the mean achievement motivation scores of all boys and all girls differ significantly. So, the null hypothesis ‘There is no significant difference between achievement motivations mean scores of all boys and all girls’ is rejected. The mean achievement motivation score of all boys is significantly higher than the mean achievement motivation score of all girls.

Table 4**Mean (M), Standard Deviation (SD) and 't' Value of Achievement Motivation Scores of Rural and Urban Adolescentas**

Sr. No.	Adolescents	No of Adolescent	Mean	SD	't' value	Critical 't' value	Result
1	Rural Boys	115	18.15	5.12	5.42	2.59	Significant
	Urban Boys	108	21.29	3.40			
2	Rural Girls	115	17.56	5.20	1.96	1.96*	Significant
	Urban Girls	108	18.33	4.44			
3	Rural Adolescents	230	17.85	5.16	4.99	2.59	Significant
	Urban Adolescents	216	20.06	4.17			

* Significant 0.05 level

Table 4 shows that the mean and SD of rural boys is 18.15 and 5.12 whereas the mean and SD of urban boys is 21.29 and 3.40 respectively. The 't' value is 5.42 and it is found significant at 0.01 level of significance. This indicates that the mean achievement motivation scores of rural boys and urban boys differ significantly. So, the null hypothesis 'There is no significant difference between achievement motivation mean scores of rural boys and urban boys' is rejected. The achievement motivation mean score of urban boys is significantly higher than rural boys.

The mean and SD of rural girls is 17.56 and 5.20 whereas the mean and SD of urban girls is 18.33 and 4.44 respectively. The 't' value is 1.96 and it is found significant at 0.05 level of significance. This indicates that the mean achievement motivation scores of rural girls and urban girls differ significantly. So, the null hypothesis 'There is no significant difference between achievement motivation mean scores of rural girls and urban girls' is rejected.

Again from above table it can be observed that the mean and SD of rural adolescents is 17.85 and 5.16 whereas the Mean and SD of urban adolescents is 20.06 and 4.17 respectively. The 't' value is 4.99 and it is found significant at 0.01 level of significance. This indicates that the mean achievement motivation scores of rural adolescents and urban adolescents differ significantly. So, the null hypothesis 'There is no significant difference between achievement motivation mean scores of rural adolescents and urban adolescents' is rejected. The mean achievement motivation score of urban adolescents is significantly higher than the mean achievement motivation score of rural adolescents.

FINDINGS AND DISCUSSION

On the basis of analysis and interpretation of collected data it was found that,

- ★ Achievement Motivation level among adolescents is not high. Achievement motivation level among adolescents is average.

- ★ Achievement Motivation among boys is higher than girls.
- ★ Achievement motivation among urban adolescents is higher than rural adolescents.

Finding 1 revealed that Achievement Motivation level among adolescents is not high, it is average. It is supported by the findings of Abrol (1977), Gupta (1978), Jerath (1979) and Kour (1988) but the contradictory results were found by Chaudhari (1971), Aggrawal (1974) and Rani (1992). The reason behind it, is that today there is a saturation in every field of life. So, there is unemployment on the large scale. Every person tries to obtain the job by doing any means. This creates a corruption. So, the ordinary true person, by doing hard work and efforts, is not able to obtain a job and there is always a confusion in his mind about 'what to do?' the adolescents observed this situation in society. So, they become confused regarding their future life.

Finding 2 revealed that Achievement Motivation level among boys is greater than girls. It is supported by the findings of Abrol (1977), Gupta (1978), Jerath (1979) and Kour (1988) but the contradictory results were found by Chaudhari (1971), Agrwal ((1974) and Rani (1992). This result is due to the situation in the rural area. Parents pay attention towards the development of boys than girls due to the lack of their education, poverty and dominance of traditions in rural area. Girl has subordinate place in her family. She is neglected in clothing, diet and other facilities every time. The parent's attitude is that when she comes of age, they think to marry her as early as

possible. Parents do not take into account her feelings, ambitions, aspirations and thoughts. Therefore, even though she may have high ambitions and aspirations, rural girl cannot think about her own future. She only knows to obey orders given by parents about her future. The situation in urban area is somewhat better than rural area. The urban population is classified in to three categories namely, high, middle and low class according to socio-economic status. In high and middle class families, the status of boys and girls is not differentiated but the status of girls in low class family is same as in rural family. So, there is a significant gender difference in Achievement Motivation of adolescents.

Finding 3 revealed that Achievement Motivation among urban adolescents is higher than rural adolescents. The reason behind it is be that in rural area, there is a lack of education, poverty, addiction, lack of facilities, the adolescents do not have high ambitions. No one can inspire them. Urban parents have awareness regarding the future of their children. They encourage their children. They provide high quality facilities and inspire them to decide the aims and objectives of life.

IMPLICATIONS OF THE STUDY

As the findings revealed that Achievement Motivation level among the adolescents is not at high level. So, to reach them at high level teacher should make teaching interesting, enhance learner's feelings of esteem by arranging varieties of learning experiences. Individual difference, sex, abilities and locality of adolescents must be taken into consideration.

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INTERACTIVE MULTIMEDIA: THE PINNACLE OF EDUCATION

4

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INTRODUCTION

Education is the process of developing the capacities and potentials of the individual so as to prepare that individual to be successful in a specific society or culture. From this perspective, education is serving primarily as an individual development function. Education begins at birth and continues throughout life. Education, in its broader sense, may be defined as a process designed to inculcate the knowledge, skills and attitudes necessary to enable individuals to cope effectively with their environment. Its primary purpose is to foster and promote the fullest individual self realization for all people. Achieving this goal requires understanding of commitment to the proposition that education is a primary instrument for social and economic advancement of human welfare (Verma, 1990).

Traditionally, education has been associated with the classics. The huge progress in Science has been achieved, and has not prevented the formation of a division between a fraction of society that has been educated in the classics and that trained in the Science. There are

indeed important exceptions; however the division is clearly perceptible in our society nowadays, science is all around us. Modern life can't be conceived without science. The investigator presents the relative significance of the instructional technologies and its relevance of which present day situations. The application of modern technologies is a pre-requisite for the instruction of science and applied disciplines.

Technology in the information revolution has provided many unique benefits to instructional programs. Although traditional ways of instruction are widely accepted in teaching and learning environments, some educational institutions have started to implement computer technology as an instructional approach. Recently, information technology has been integrated into teacher education courses in many ways, such as CD-ROMs, interactive videodiscs, teleconferencing, electronic mail, and microcomputers with hypermedia/multimedia programs. Computer assisted instruction is just one of these technological applications.

Interactive media is related to the concepts of interaction design, new media, interactivity, human computer interaction,

cyber culture, digital culture, and includes specific cases such as, for example, interactive television, interactive narrative, interactive advertising, algorithmic art, videogames, social media, ambient intelligence, virtual reality and augmented reality. An essential feature of interactivity is that it is mutual, user and machine each take an active role (see interaction). Most interactive computing systems are for some human purpose and interact with humans in human contexts. Manovich complains that 'In relation to computer-based media, the concept of interactivity is a tautology. Therefore, to call computer media "interactive" is meaningless - it simply means stating the most basic fact about computers.' Nevertheless the term is useful to denote an identifiable body of practice and technology. Interactive media is an instance of a computational method influenced by the science of cybernetics, autopoiesis and system theories, challenging notions of reason and cognition, perception and memory, emotions and affection.

Any form of interface between the end user/audience and the medium may be considered interactive. Interactive media is not limited to electronic media or digital media. Board games, popup books, game books, flip books and constellation wheels are all examples of printed interactive media

Multimedia a helping hand for educational achievements

The purpose of this study is to determine the effect of interactive multimedia and traditional teaching methods on the

academic achievement of students of secondary school students. With the advancement in educational technology, the delivery of still images has evolved into interactive multimedia. The effective use of interactive multimedia and its positive results on instructional message design is evident by other research.

Interactive multimedia has shown different effects on cognitive activities through the Dual-Modality, Contiguity Effect, Element Interactivity Effect, Coherence Principle and Multimedia Effect. Rieber (1990) stated that, "in case of children, interactive multimedia's may have an effect under certain conditions such as when dealing with materials that are neither too simple nor too difficult." This relationship between interactive multimedia and the user's age needs to be investigated.

With the increasing usability of computers, it is also important to know in greater detail how different visual treatments can affect the process of learning on secondary school students. This study assesses the degree to which computer interactive multimedia contributes toward learning. The results obtained from this research will be helpful for designing instruction to secondary school students. So that the processing of the information is simplified. Teachers apply interactive multimedia technology to develop aids to coursework.

De Coursey (2012) conducted a study "Trialing Cartoons: Teachers' Attitudes towards Interactive Multimedia as an ELT

Instructional Tool". This paper explores the attitudes of teachers, as adult learners, towards learning to do interactive multimedia. A part of popular culture which second-language students enjoy, until recently, interactive multimedia has been technically too demanding for non-specialists to learn. Appraisal analysis indicated teachers positively realized interactive multimedia as valuable, worthwhile and satisfactory, but also difficult and time-consuming and entailed high levels of communication. Quantitative data indicated their view that interactive multimedia would be well-received by both colleagues and secondary language learners, as an instructional tool.

Katrin et al. (2010) undertook a study to find out the importance of Interactive Multimedia as a visual method in learning chemistry. They examined differences in students' motivation and learning outcomes as resulting from two different teaching methods. The findings of this study indicated that Interactive multimedia technique enables higher academic achievement in comparison to traditional teaching methods..

In this rapidly changing educational scenario, the investigator wanted to unveil the possibilities of Interactive Multimedia Techniques for teaching Physics among secondary school students. This study could find ample scope for using Interactive Multimedia to deal with the chapter 'Refraction of Light' in class IX physics. From the related review, investigator believed that through Interactive

Multimedia Techniques, students can learn more effectively than the activity oriented method. Thus the reviews and the experiences from the earlier teaching of Physics made the researcher to select the topic to find out the Effectiveness of Interactive Multimedia Techniques on achievement in Physics of students at secondary level.

OBJECTIVES OF THE STUDY

- ★ To compare the effectiveness of Interactive Multimedia Techniques with that of activity oriented method on achievement in Physics among students at secondary level with respect to instructional objectives such as,
(a) Knowledge (b) Process
(c) Creativity (d) Attitudinal
(e) Application.

HYPOTHESES OF THE STUDY

There is no significant difference between mean gain scores of achievement in Physics of Interactive Multimedia Techniques and Activity Oriented Method with respect to instructional objectives,

- (a) Knowledge (b) Process
(c) Creativity (d) Attitudinal
(e) Application

METHODOLOGY

The study was intended to check the Effectiveness of Interactive Multimedia Technique at Secondary School Level. It is decided to conduct the study in standard IX. The investigator selected standard IX classes from G.V.H.S.S Trikkaripur, Kasaragod to conduct the study. There were total of 60 students in the selected classes. Out of this 30 students are in

the experimental group and 30 students are in the control group. Experimental method is considered to be most appropriate for the said study. The design selected is pre-test post- test non-equivalent group design (Best, 2004). Two strategies of independent variables used in this study are Interactive Multimedia and Activity oriented method. The dependent variable of the present study is Achievement in physics of students.

The tools and materials employed for the collection of data were lesson transcripts based on interactive multimedia, lesson transcripts based on activity oriented method and achievement test in physics prepared by the investigator. The collected data was analyzed by using the statistical procedures.

DATA ANALYSIS AND DISCUSSION

Table 1

Comparison of gain mean scores of Achievement in Physics of Interactive multimedia Techniques and Activity Oriented Method with respect to instructional objectives

Sl. No.	Instructional Objectives	Experimental Group		Control Group		t value	Level of significance
		Mean	SD	Mean	SD		
1	Knowledge	4.47	1.5	3.77	1.98	1.5	$p > 0.01$
2	Process	4.7	1.76	2.8	1.88	4.04	$P < 0.01$
3	Creativity	2.37	1.19	1.63	1.09	2.47	$P < 0.05$
4	Attitudinal	2.4	1.13	1.33	0.71	4.46	$P < 0.01$
5	Application	4.4	1.85	2.93	2.05	2.94	$P < 0.01$

Table 1 shows that interactive multimedia is more effective in the case of instructional objectives, process, creativity, attitudinal, application except knowledge compared to activity oriented method.

The analysis of the data for comparing the effectiveness of Interactive Multimedia Techniques over Activity Oriented Method under the instructional objectives reveals that as in the case of Process, Creativity,

Attitudinal and Application there is significant difference in the Achievement between students in the experimental and control group but in the case of Instructional Objective Knowledge mean value of control and experimental group is 3.77 and 4.47. $t = 1.5$ $p > 0.05$ So there is no difference in the achievement in physics based on knowledge between the students of experimental and control group.

IMPLICATIONS OF THE STUDY

Interactive Multimedia Techniques are very effective in enhancing achievement among secondary school students. The findings of the study throw light in to the following educational implications.

- ★ The application of Interactive Multimedia Techniques on teaching should be encouraged among teachers since the above strategy proved itself to be more effective than Activity based method.
- ★ A sound foundation of science subjects at the secondary level is a pre-requisite for higher studies and specialization. Interactive Multimedia Techniques builds a strong foundation by developing a deeper understanding of fundamental concepts.
- ★ Interactive Multimedia Techniques transforms students in to the 21st century citizens who possess a trained mind which is capable of gathering data, formulating models, testing hypotheses and arriving at conclusions. Above all it develops a desire and habit of thinking.
- ★ Interactive Multimedia Techniques nurtures individual initiative which is one of the vital resources that a human being should possess.
- ★ In the Interactive Multimedia Techniques students have to shoulder responsibility of their own learning. Hence they will be more vigilant to understand the concepts of subject matter clearly which in turn enhance their achievement.

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A STUDY OF DIGITAL SMART CLASSROOM TEACHING EXPERIENCE OF HIGH SCHOOL TEACHERS IN MADURAI DISTRICT

5

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INTRODUCTION

Teachers are gaining increased access to smart classrooms and digital technologies that offer teachers and students, greater access to authentic cultural materials. Teaching with technology changes the teaching and learning environment in many ways. Technology is integrating into the daily teaching curriculum which changes the implicit power structures embedded in all classroom interactions. The notion of environment, as a material and symbolic mediation of people's activity, stresses the central role played by social relationships and tools in understanding knowledge construction and thinking processes. Digital Smart Classroom is a classroom that has a teacher and computer station with internet access that is connected to a multi-media digital projector and has some form of enhanced sound capabilities for the computer. Other digital technologies can be added to this configuration based on the specific needs of the educational context. Digital Smart Classroom is a concept that attempts to capture a particular kind of environment designed to encourage and

promote certain social activities, as well as to allow people to re-shape and re-create these very interactional possibilities.

NEED OF THE STUDY

The social distribution of intelligence comes from its construction in activities such as the guided participation in joint action. The material distribution of intelligence originates in the situated inventions of uses for aspect of the environment or the exploitation of the affordances of designed artifacts, either of which may contribute to supporting the technology environment in the classroom. The narrow view of the electronic classroom is that it is a room with computers and multimedia displays. The broader view is that it is an electronic environment that supports the many processes of classroom education. This concept of environment allows us to reconceptualize the notion of a digital classroom. By looking at these classroom settings through the notion of environment introduced above we are able to focus the attention on the complexity of the pedagogical activities that has taken place within them. By doing that,

we attempt to construct a pedagogical notion of environment that may overcome technical centred digital classroom. The electronic dimension of the classroom is re-conceptualized as tools, which actually are an aspect of the mediational structures that constitute the overall environment. The activities that faculty develops in this environment are the main focus of this study. Because of the central, decision-making role of the teacher, this study uses a critical theory of technology to examine the daily technology integration experiences of the teachers.

OBJECTIVE OF THE STUDY

- ★ To find out the high school teachers experience on Digital Smart Classroom Teaching
- ★ To find out the relationship of their teaching competency with their experience on Digital Smart Classroom Teaching.

HYPOTHESES

1. There is no significant difference between UG and PG teachers on Digital Smart Classroom Teaching Experience.
2. There is no relationship between Teaching Competency and Digital Smart Classroom Teaching Experience.

METHODOLOGY

Survey method has been used in this study. The sample of the study consists of 80 teachers drawn by purposive sampling from Sri Aurobindomira Matric Higher Secondary School, Velammal Matric Higher Secondary School and Jeevana International School, Madurai.

The investigator constructed Digital Smart Classroom Teaching Experience of high school teachers. There are three dimensions in this tool namely Empower Faculty consisting of 20 statements, Electronic Environment consisting of 20 statements and User Interface consisting of 15 statements. After validation the refined tool consists of 40 statements (Empower Faculty consisting of 15 statements, Electronic Environment consisting of 15 statements and User Interface consisting of 10 statements). The statistical techniques used for treatment of data is 't' test and correlation.

Empower Faculty

The digital smart classroom is to be a complex scenario for teachers who are not quite familiar with the use of technology in their teaching practices. Making it more difficult for them to become confident in this task. This pedagogy made the teachers to design the environment, stressing a user friendly approach so that the faculty can intuitively develop the necessary skills to manage the environment. Teachers were inspired to integrate more information and communication technology into their lessons, their teaching practices involved more visual strategies and students were specially motivated by the use of this tool. Faculty is provided with special tools that allow them to capture their annotations, explanations and discussions during classroom interactions. The captured activities are organized in chronological order and displayed together with other instructions. There is an easy access to technology as an essential feature to facilitate teachers presentation. These

technical facilities training is given to teachers to access information and discuss different teaching materials.

Electronic Environment

The available resources of the Digital Smart Classroom are online resources, smart board writing capabilities, smart board saving capabilities, other softwares, video-audio and whiteboard and online resources. This resources vary from visual material to digital texts, reference sources and course website. The writing capability of the smart board is used to highlight texts and images. The teacher uses this to retrieve the students discussion. Other softwares are used to read and work with curriculum designing. Video/Audio Visual Materials

are DVD and VHS which is used to record audio and video. Whiteboard is used to make annotations during their classes.

User Interface

It is really fine to bring the students up and ask them to pick things that they want to add, to create a space in which they put together audio visual material. The teacher has evaluated students' posting regarding a particular question and organized them in a way that allows him to bring student comments to the class reflecting on the different levels of analysis involved in their responses. Students and instructor engaged in a discussion regarding the different understandings and interpretations depicted in the postings.

RESULTS AND DISCUSSION

Table 1
t value between PG and UG teachers on the digital smart classroom teaching

Variables	Trs Category	N	Mean	SD	t value	Result
TC	UG	27	72.89	8.45	0.95	N.S
	PG	53	74.66	7.57		
EF	UG	27	12.07	1.14	0.67	N.S
	PG	53	11.87	1.37		
EE	UG	27	12.15	1.51	0.46	N.S
	PG	53	12.00	1.27		
UI	UG	27	5.15	0.82	5.16	0.001
	PG	53	6.11	0.78		
DSCTE	UG	27	109.96	7.38	0.92	N.S
	PG	53	108.26	7.97		

Table 1 shows that, there is no significant difference between UG and PG Teachers in Teaching Competency , Empower Faculty and Electronic Environment and Digital Smart Classroom Experience as a whole.

There is significant difference between UG and PG teachers in User Interface at 0.001 level of significance in favour of PG teachers. Hence hypothesis (Ho₁) is accepted.

Table 2
Relationship between Teaching Competency and Correlates

Variables	Corr Value
TC	1.00
EF	0.25
EE	0.22
UI	0.08
DSCTE	0.66

Teaching Competency has low positive relationship with Empower Faculty. Teachers were inspired to integrate more information and communication technology into their lessons and their teaching practices involved more visual strategies. It has low positive relationship with Electronic Environment. Teachers were provided with special tools that allowed them to enhance teaching with explanations and illustrations. It has negligible relationship with User Interface. Teachers had less experience to deliver online lesson to the students. Teaching Competency has high positive relationship with Digital Smart Classroom Teaching Experience as a whole. Hence, hypothesis (H_{o2}) is rejected.

Empower Faculty

Goals and objectives were defined by teachers for their courses. Teachers possessed the abilities to provide potentially enhanced teaching and learning experiences. Training was given to the teachers to develop activities which enrich knowledge construction process. Teachers got innovative ideas to organize the learning materials. Both UG and PG Teachers got the same experience in Empower Faculty.

Electronic Environment

Teachers used the available resources in the classroom to present exemplified, contextualize, discuss, compare and

deconstruct different reading materials. They were familiar with the tools of electronic environment. This environment allowed the teachers to think about a difference between presenting a practice commonly associated with certain user of technological tools and teaching, a practice mainly focused in different aspects of the challenge of explaining and discussing knowledge. Both UG and PG teachers got the same experience of handling the technological tools.

User Interface

Students worked in their own computers in the classroom each in their own level. They also used the softwares installed in the electronic environment. They reviewed each work together, collectively on the smart board screen. Students working in small groups used the environment to create presentations, recorded them and discussed their performances, using different annotations on the smart board. Students were also familiar in searching the material from online resources. The performance of PG Teachers in Creating the presentation is better than UG Teachers.

CONCLUSION

Thus the teachers were able to identify particular aspects of the environment that seem to encourage new experiences in their teaching practices that might be conducive to enhance teaching and learning experiences. What seems particularly interesting is the way in which these reflections imply a consideration of educational challenges as a way of experimenting with uses of technology framed in their pedagogical perspective. They identified challenging and confident environment in exploring and moving forward the possibilities of the available resources of the Digital Smart Classroom Teaching.

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EFFECTIVENESS OF BLENDED TEACHING OF TAMIL SUBJECT AMONG HIGH SCHOOL STUDENTS

6

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Education is an important process in man's life. It begins from birth and continues till death, and thus it is never ending process. It is through education that child develops his thinking and reasoning, problem solving and creativity, intelligence and aptitude, positive sentiment and skills good values and attitudes. Education helps the child in making adjustment with his own self and other members of society. Education brings about national integration. It promotes national life discipline which is essential from the point of view of successful national life.

Language

No species other than human has been endowed with the gift of language. Animals cannot acquire human language because of complex structure and their physical inadequacies. A language is an abstract set of psychological principles and sociological considerations that constitute a person competence as a speaker in a given situation. These psychological principles provide him an ability to understand and create a system of rules establishing correlation between meanings and sound sequences. Language has creativity and productivity.

The structural elements of human language can be combined to produce new utterances, which neither the speaker nor his hearers may ever have made or heard before any listener, yet which both side understand without difficulty. Language changes according to the needs of society. A language is a code which is different from his linguistic performance. But mere linguistic or communicative competence is not enough for communication; it has to be coupled with communicative competence. This is the view of the socio-linguists who stress the use of language according to the occasion and context, the speaker and the listener, the profession and the social status of the speaker and the listener. Thus, language is the result of social interaction. A language is more than a means to communicate with other people or nations. In the process of change and growth, language acquires new shape, new approach, new significance and new application. A first language (also native language, mother tongue, arterial language, or first language) is the language(s) a person has learned from birth or within the critical period, or that a person speaks the best and so is often the basis for sociolinguistic

identity. In some countries, the terms *native language* or *mother tongue* refer to the language of one's ethnic group rather than one's first language. A blended learning combines face to face classroom methods with computer mediated activities to form an integrated instructional approach (Penn state). So the investigators made an attempt of using the blended teaching approach in Tamil subject. A research work on language related areas with latest technology are very essential in the above context. Good researches lead motivation to the learners and teachers. Hence this study emerged.

OBJECTIVES OF THE STUDY

- ★ To find out the level of achievement of control group students in Tamil subject
- ★ To find out the level of achievement of experimental group II students in Tamil subject
- ★ To find out the effectiveness of blended method of teaching Tamil subject

HYPOTHESES

1. There is no significant mean difference between pre test and post score of control group students with respect to their achievement in Tamil subject.
2. There is no significant mean difference between pre test and post test of experimental group II students with respect to achievement in Tamil subject.
3. There is no significant mean difference between control group and experimental group II students with respect to achievement in Tamil subject (Post test).

METHODOLOGY

The steps of procedure in research are an element, common to all methods of research while, different methods of research have different distinguishing features. In this present study, the investigator applied experimental research as a method. This method studies, describes and interprets what will be exists in future.

Population

The investigator collected information from the high school students studying in schools situated in Cuddalore District of Tamil nadu state.

Sample

The present study consists of 60 students studying in schools in Cuddalore District of Tamil Nadu. The sample was selected by using simple random sampling technique. The sample forms a representative sample of the entire population. The proportionate weightage was given to various sub-samples. The sample was further divided into two groups control group and experimental group. Each group consists of 30 samples. The achievement level of the control group and experimental group II is equal.

The control group students are not allowed to get any exposure on the subject matter other than the tradition classroom teaching but the experimental group II students are given treatment on multimedia package of teaching Tamil subject with traditional classroom teaching i.e., blended teaching method.

Variables

Effectiveness of Tamil Subject (academic achievement) was taken as a dependent variable.

Tools Used

1. Achievement Test in Tamil subject constructed and validated by the investigators (2012).
2. Multimedia package on Tamil subject constructed and standardized by the investigators (2012).

Statistical Techniques

The following statistical techniques were used.

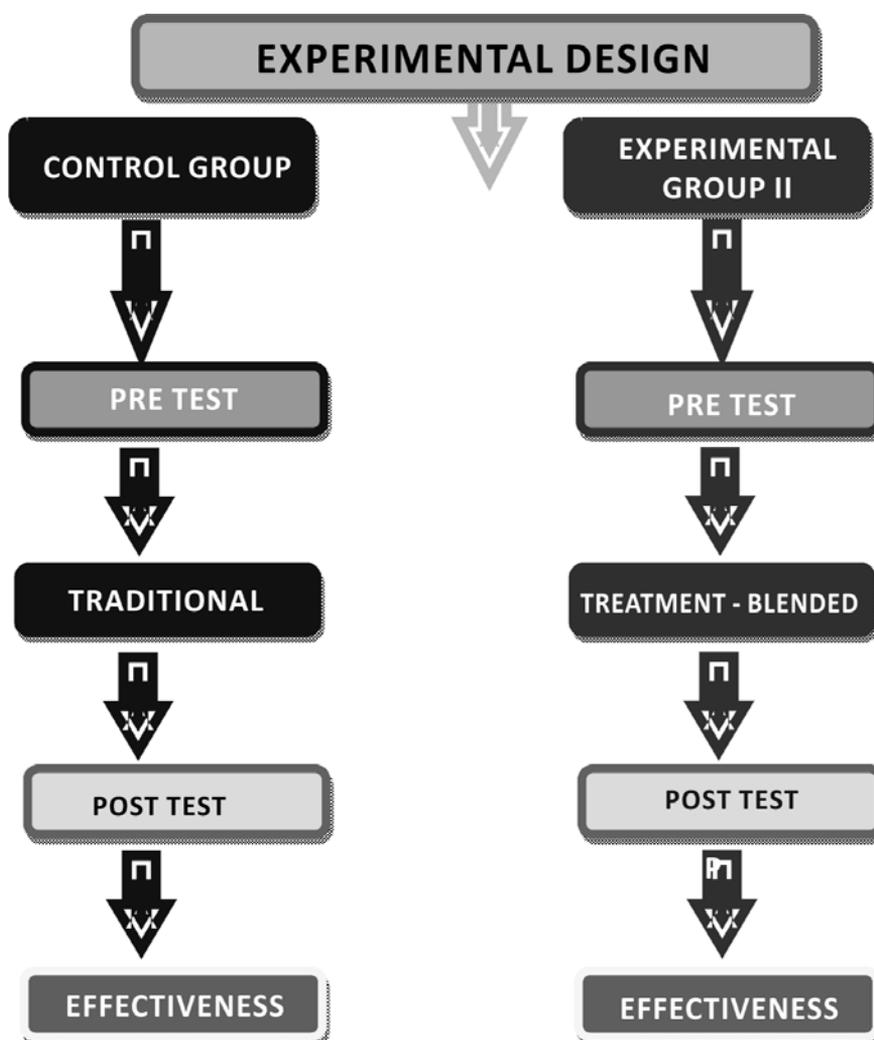
Descriptive Analysis

- i. Measures of central tendency (Mean)
- ii. Measures of variability (Standard Deviation)

Differential Analysis

- iii. 't' test

Flow Chart Showing the experimental design of the Present Investigation



DATA ANALYSIS AND INTERPRETATION

Null Hypothesis-1

There is no significant mean difference between pre test and post score of control group students with respect to their achievement in Tamil subject.

Table 1

Percentile Norm for Achievement Test in Tamil Subject

Percentile	Score Range	Norm
Below P ₂₅	Below 17	Low level of achievement
P ₂₅ to P ₇₅	18 – 35	Average level of achievement
Above P ₇₅	Above 35	High level of achievement

Null Hypothesis - 2

There is no significant mean difference between pre test and post test of experimental group II students with respect to achievement in Tamil subject

Table 2

Mean, Standard Deviation and critical ratio value of control group students in achievement of tamil subject (pre test and Post test)

Control Group	N	Mean	SD	't' Value	Level of Significance at 0.05
Pre test	30	24.36	3.30	9.98	Significant
Post test	30	31.53	2.66		

The mean achievement score of control group students in pre test and post test are found to be 24.36 and 31.53 respectively. These values are fall between the score percentile 25 [18] and percentile 75 [34]. Therefore, it is inferred that control group students are having average level of achievement in Tamil subject. In order to find out the significant mean difference between pre test and post test of control group students in their achievement score in Tamil subject, the investigator calculated 't' value. It is given in the Table 2, which is found to be 9.98. It is significant at 0.05

level. Hence, the framed null hypothesis (1) is rejected. It is inferred that control group students differ significantly in their pre test and post test achievement score in Tamil subject. The control group students achievement in Tamil subject is improved in their post test. So, we it is inferred that there is a gain in their post test performance. Even though there is no treatment to control group there is an improvement in their performance in Tamil subject which may be due to the exposure gained in their pre test and time.

Analysis of Effectiveness of Multimedia on Achievement in Tamil Subject of Experimental Group II Students in Their Post Test

Null Hypothesis No - 3

There is no significant mean difference between control group and experimental group II students with respect to achievement in Tamil subject (Post test).

Table 3

Mean, Standard Deviation and 't' Values of Experimental Group II Students in Achievement in Tamil Subject (Pre and Post Test)

Experimental Group II	N	Mean	SD	't' Value	Level of Significance at 0.05
Pre test	30	24.30	2.78	30.06	Significant
Post test	30	40.90	2.27		

In order to find out the significant mean difference between pre test and post test of experimental group II students in their achievement score in Tamil subject, the investigator calculated 't' value. It is given in the table 3, it is found to be 30.06, which is significant at 0.05 level. Hence, the framed null hypothesis (2) is rejected. It is inferred that experimental group II

students differ significantly in their pre test and post test achievement score in Tamil Subject. The achievement in Tamil subject of experimental group II students is more in their post test. So, it may be inferred that there is a gain in their post test performance compared to pre test. It may be due to the treatment given to the experimental group II after the pre test.

Analysis of Achievement in Tamil Subject Scores of Control Group and Experimental Group II Students in their Post Test

Table 4

Mean, Standard Deviation and 't' Values of Control Group and Experimental Group II Students in Achievement in Tamil Subject (Post Test)

Group	N	Mean	SD	't' Value	Level of Significance at 0.05
Control	30	31.53	2.66	14.46	Significant
Experimental II	30	40.90	2.28		

In order to find out the significant mean difference between control group and experimental group II students in their post test achievement score in Tamil subject, the investigator calculated 't' value. It is given in the table 4, it is found to be 14.46, which is significant at 0.05 level. Hence, the framed null hypothesis (3) is rejected. It is inferred that control group and experimental group II students differ significantly in their post test achievement score in Tamil subject. The achievement in Tamil subject of experimental group II is better than the control group in post test. So, it may inferred that the experiment used for group II is effective in student's performance in Tamil subject (post test). In the experimental group II had guveb both the traditional and new method of teaching in a blended way. So, the students can get highly effective teaching in Tamil language than the other two groups in the study. Now a day's blended learning is more suits for language and complex subject such as science and mathematics.

RECOMMENDATIONS

The control group students are having average level of achievement in Tamil subject in both pre and post test. So, the teachers and parents should encourage the students to develop interest and ability in learning Tamil subject with the traditional method of teaching. The experimental

group II students are having average level of achievement in pre test but high level of achievement in post test. So, the teachers should encourage and recommend the multimedia packages for learning the subject Tamil among school students. The control and experimental group II students differ significantly in their pre test and post test scores. So, the policy makers should consider and recommend the multimedia modules in teaching of Tamil subject. The present study revealed that the blended method of teaching is found to be more effective than the traditional method.

CONCLUSION

It is concluded from the analysis of data, control group students are having average level of achievement in Tamil subject. And experimental group II students showed better in their post test than pre test achievement score. It may be due to the impact of blended method of teaching. The gain achievement score of control group students is less than the experimental group II measured by comparing their post test achievement score. The findings of the study reveals that the experimental group II students are better in Tamil subject [post test performance] than the control group students. The study recommended the use of multimedia package in teaching for Tamil subject for the better performance of students.

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A STUDY OF SELF-ACTUALIZATION AMONG TEACHER TRAINEES OF D.EL.Ed.

7

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INTRODUCTION

Elementary education is the foundation on which the superstructure of the entire educational system is built. Its contribution to nation building and process of development and growth has been universally recognized. Teachers working at the elementary stage may be well versed by the pedagogical principles that form the base of teaching at elementary education. So the student teachers must develop the teaching skills and the capacity to solve social, interpersonal and emotional problems of learners.

The teacher education programme plays an important role in shaping and moulding the habits, manner and character of student teachers. The mental maturity, self-actualization depend on various psychological factors. The quality of any teacher is determined on the basis of his professional excellence. Therefore, this study aims at finding out the level of self-actualization among teacher trainees of D.El.Ed.

Self-actualization makes one, what he must be or to exploit his potentialities completely. A competent teacher gives out an effective performance in a desirable and

observable way. It includes knowledge, attitude, skill and it is manifested through a set of overt teacher classroom behaviour with in a social setting. The investigator wants to study the level of self-actualization of D.El.Ed. teacher trainees.

Self-Actualization

‘What a man *can* be, he *must* be.’ This need we may call self-actualization. It refers to the desire for self-fulfillment, namely, to ‘the tendency for him to become actualized in what he is potentially.’ This tendency might be phrased as the desire to become more and more what one is, to become everything that one is capable of becoming.

While the theory is generally portrayed as a fairly rigid hierarchy, Maslow noted that the order in which these needs are fulfilled does not always follow this standard progression. For example, he notes that for some individuals, the need for self-esteem is more important than the need for love. For others, the need for creative fulfillment may supersede even the most basic needs.

Characteristics of Self-Actualized People

In addition to describing what is meant by self-actualization in the theory, Maslow

identified some of the key characteristics of self-actualized people:

- **Acceptance and Realism:** Self-actualized people have realistic perceptions of themselves, others and the world around them.
- **Problem-centering:** Self-actualized individuals are concerned with solving problems outside themselves, including helping others and finding solutions to problems in the external world. These people are often motivated by a sense of personal responsibility and ethics.
- **Spontaneity:** Self-actualized people are spontaneous in their internal thoughts and outward behavior. While they can conform to rules and social expectations, they also tend to be open and unconventional.
- **Autonomy and Solitude:** Another characteristic of self-actualized people is the need for independence and privacy. While they enjoy the company of others, these individuals need time to focus on developing their own individual potential.
- **Continued Freshness of Appreciation:** Self-actualized people tend to view the world with a continual sense of appreciation, wonder and awe. Even simple experiences continue to be a source of inspiration and pleasure.
- **Peak Experiences:** Individuals who are self-actualized often have what Maslow termed peak experiences, or moments of intense joy, wonder, awe and ecstasy. After these experiences, people feel inspired, strengthened, renewed or transformed.

SIGNIFICANCE OF THE STUDY

Poverty can be eradicated only if the civilization is developed. If the literacy level is improved, national potentiality is improved. Self concepts influence the trainees' perceptions and their academic achievements. It is axiomatic that the younger generation has a significant part to play in the future development of the country.

In the present situation, trainees come from different families and different backgrounds. They have to adjust with the fast changing environmental conditions and they have to show better competency.

The rural D.El.Ed. trainees even though they are intelligent, their attitude differ from urban D.El.Ed trainees. This is because of self-actualization of their potentiality has been utilized less on par with urban society. Major reason is exposure in the society. Their family background varies. For this imbalance to be reduced by making them to realize what they really need to learn. How their potentiality will come out in better way. There by, self-actualization will be brought in a positive way.

Self-actualization differs from individual to individual who leads to the independent victory or successful social status.

Effective teachers understand and they are able to apply strategies to help students' achievement. They understand and apply knowledge of child and adolescent development to motivate and engage students. They are able to diagnose individual learning needs. They know how to develop a positive climate in the classroom in order to make a stimulating learning environment.

Self-actualization creates a desire for self fulfillment. Self-actualization makes the trainees to solve problems in any situation. This tendency might be phrased as the desire to become more and more capable.

So the investigator wants to study the level of self-actualization of teacher trainees of D.El.Ed.

REVIEW OF RELATED LITERATURE

Asian studies (Rangaswami 1994; Chang and Page 1991) support Rogers' and Maslow's theories of self-actualization, indicating universality in human experience. Comparing the Chinese Taoist and Zen Buddhist view of the development of human potential with Rogers' and Maslow's shows that a cross-cultural comparison of views on developing human potential, offer a perspective broader than isolated considerations of either Western or Eastern perspectives.

Maslow's ideas on psychopathology are also associated with spirituality (Maslow, 1970). Two forces test the individual: pressures towards health and self-actualization, and regressive pressure backwards to weaknesses and sickness. The absence of spiritual life leads to neurosis, a 'spiritual disorder' — the loss of meaning and hope, the awareness that one's life is wasted and the impossibility of joy or love (Maslow, 1971). These failures to measure up to full humanness (self-actualization) lead to psychopathology.

Employment allows people to become self-actualized (Maslow 1998). When businesses apply the hierarchy of needs model under conditions such as trustworthiness, responsibility and accountability, the undamaged human being naturally strives to become self-actualized (Maslow, 1965).

OBJECTIVES OF THE STUDY

- ★ To study about self-actualization among D.El.Ed. teacher trainees of District Institute of Education and Training, Madurai district.
- ★ To determine the significant difference between self-actualization with variables like sex, locale, religion, educational qualification of parents and parent's income.

HYPOTHESES

1. There is no significant difference between the self-actualization of D.El. Ed. teacher trainees based on
 - Gender (male or female)
 - Locale (rural and urban)
 - Educational qualification of parents (Educated and Illiterate)
 - Parent's income (sufficient and Deficit)
 - Religion

METHODOLOGY

The normative survey method was used to find out the level of self-actualization among D.El.Ed. teacher trainees of District Institute of education and training, Madurai district. The self-actualization inventory prepared and standardized by Walter D.Sorochan, Personal Health Appraisal, New York (1976) was used to random samples of 200 teacher trainees of District Institute of Education and Training, in Madurai district. The scoring of the tools has been done according to the instruction given in the manual. The data has been subjected to statistical techniques like descriptive analysis and differential analysis.

DATA ANALYSIS AND INTERPRETATIONS

Table 1
Mean and Standard Deviation of
Self-Actualization of D.El.Ed.
Teacher Trainees

Sample	Mean	Standard deviation
200	128.185	0.5345

The mean and standard deviation for the total group are found to be 128.185 and 0.5345 respectively. In this study a student teacher can get a maximum score of 200. The mean value is higher than the mid score of 100. Hence, the level of self-actualization among teacher trainees of D.El.Ed. is moderate.

Table 2
Significance of difference in self-actualization of D.El.Ed. teacher trainees belonging to different sub groups

Sl. No.	Category	Group	N	Mean	S.D.	't' value	Level of significant at 5% level
1.	Gender	Male	47	127.93	20.35	0.094	NS
		Female	153	128.26	20.87		
2.	Locale	Urban	61	131.56	20.12	1.531	NS
		Rural	139	126.70	20.85		
3.	Parents educational qualification	Educated	85	126.72	21.04	0.854	NS
		Illiterate	115	129.26	20.47		
4.	Parents income status	Sufficient	126	128.30	20.80	0.104	NS
		Deficit	74	127.99	20.68		
5.	Religion	Hindu	183	127.41	20.31	1.733	NS
		Others	17	136.47	23.70		

NS – Not significant

Gender and self actualization

In order to find out whether there is a significant difference between the mean self actualization scores of teacher trainees of male and female, the 't' value has been calculated, which is not significant at 0.05 level (Table 2). Hence the null hypothesis is accepted at 0.05 level. It is concluded

that there is no significant difference in the mean self-actualization scores of male and female.

Locale and self-actualization

In order to find out the significance of difference between the mean self-actualization scores of teacher trainees residing at urban and rural area, the 't'

value has been calculated. Which is not significant at 0.05 level (Table 2). Hence, the null hypothesis is accepted at 0.05 level. It is concluded that there is no significant difference between the mean self-actualization scores of student teachers residing in the urban and rural area.

Parent's educational qualification and self-actualization

In order to find out the significance of difference between the mean self-actualization scores of teacher trainees with educated parents and illiterate parents, the 't' value has been calculated. Which is not significant at 0.05 level. Hence, the null hypothesis is accepted at 0.05 level. It is concluded that there is no significant difference between the mean self actualization scores of teacher trainees with educated and illiterate parents.

Income status and self-actualization

In order to find out the significance of difference between the mean self-actualization scores of teacher trainees belonging to sufficient and deficit income status, the 't' value has been calculated, which is not significant at 0.05 level (Table 2). Hence, the null hypothesis is accepted at 0.05 level. It is concluded that there is no significant difference between the mean self actualization scores of teacher trainees belonging to sufficient income status and deficit income status.

Religion and self-actualization

In order to find out the significance of difference between the mean self-

actualization scores of teacher trainees belonging to Hindus and other religions, the 't' value has been calculated. Which is not significant at 0.05 level. Hence, the null hypothesis is accepted at 0.05 level. It is concluded that there is no significant difference between the mean self actualization scores of teacher trainees belonging to Hindus and other religions.

FINDINGS

- ★ The self-actualization of teacher trainees of D.El.Ed. of District Institute of Education and Training, Madurai district is in moderate level.
- ★ The teacher trainees of D.El.Ed. of male and female do not significantly differ in their self-actualization.
- ★ The urban and rural teacher trainees of D.El.Ed. do not significantly differ in their self-actualization.
- ★ The teacher trainees of D.El.Ed. with educated parents and illiterate parents do not significantly differ in their self-actualization.
- ★ The teacher trainees of D.El.Ed. belonging to sufficient income status and deficit income status do not significantly differ in their self-actualization.
- ★ The teacher trainees of D.El.Ed. belonging to Hindu and Other religion do not significantly differ in their self-actualization.

EDUCATIONAL IMPLICATIONS

In present study, it was found that the level of self-actualization among

teacher trainees of D.El.Ed. is moderate. So the lecturers want to improve self-actualization to the following skills have to be trained, 1. Decision making, 2. Problem solving, 3. Social relationship, 4. Sportive attitude and 5. Empathy. The foremost skill to concentrate is reasoning, which is the skill required in society to placement in job for any individual. Unless if the teacher trainees were not developed their skill in reasoning, they can't make perfect decision making, problem solving, social relationship, sportive attitude and empathy. Why because reasoning makes a person's concentration, minds accuracy and decision making intact. This is required for all the students placement in jobs. That is why any competitive examination like CTET, TET, NET, SET, BSRB, RRB, Staff selection, UPSC, TNPSC conducting test in reasoning. There by the teacher trainees were able to accomplish the task of attaining success by improving reasoning skill and develop their self-actualization. This proves better students among the normal one and making our student fittest of the survival in a competitive world.

At home, the parents should also give them opportunity in making decision wherever and whenever is needed. At the same time, the parents should give importance to the thoughts and values

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of their wards. There by we can find improvement in creativity of any individual that leads to improvement in self-actualization. Always our students should have a thirst for knowledge and every student should have the question "Why not I?" should blink always in their mind. Then only the success is attainable in all respect in the form of self-actualization.

CONCLUSION

The motivation to realize ones owns maximum potential and their possibilities. It is considered to be the master motive or the only real motive, all other motives being its various forms. In Maslow's hierarchy of needs, the need for self-actualization is the final need that manifests when lower level needs have been satisfied.

So it is necessary to develop self actualization among teacher trainees of D.El.Ed. This study proves that the male and female teacher trainees from urban and rural area, students with educated and illiterate parents and students from sufficient and deficit income groups scores are substantial in their self-actualization. So it is the duty of the lecturers to nurture the teacher trainees to improve their self-actualization.

SCIENCE TEACHING COMPETENCY OF PRIMARY SCHOOL TEACHERS IN RELATION TO THEIR SELF-EFFICACY

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INTRODUCTION

Primary School Teachers are the teachers who are teaching classes from I std to V std. The primary school teachers are responsible for the foundations of the students. Teacher is the person who can knock at the doors of mind.

The Science teacher plays the vital role in spreading scientific knowledge and building up habits of thought and action and there by making the teaching of science efficient and effective.

Competency means adequacy and sufficiency. Teacher competencies are the skills, knowledge, values which a teacher possess; they are the tools of teaching. Only the teacher who possesses all the skills, knowledge and values can function effectively in a teaching situation and is said to be competent to teach in that situation.

Teacher efficacy is the teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context. It is in making explicit the judgment of personal competence in light of an analysis of the task and situation. Greater efficacy leads to greater

effort and persistence, which leads to better performance, which in turn leads to greater efficacy. The reverse is also true. Lower efficacy leads to less effort and giving up easily, which leads to poor teaching outcomes, which then produce decreased efficacy. Thus, a teaching performance that was accomplished with a level of effort and persistence influenced by the performer's sense of efficacy, when completed, becomes the past and a source of future efficacy beliefs. Over the time, this process stabilizes into a relatively enduring set of efficacy beliefs.

SIGNIFICANCE OF THE STUDY

Primary education plays a vital role in the socialization of a child. It is crucial for a child because the basic 3R's and fundamentals in Science, Social studies and other vital subject experiences are provided. Science has helped the human being to acquire supremacy over nature. Science is fundamentally concerned with exploring and interpreting the physical world. Science helps to develop the power of thinking, reasoning curiosity, open-mindedness and ultimately develops scientific attitude. It is expected that science education should

develop well defined ability in cognitive, affective and psychomotor domains. So the teachers of primary school can follow creative methods for making science as an interesting subject. The competency of the teacher is recognized in terms of skills acquired in presenting the lesson in the class. According to T.F. Green (1964) the Act of Teaching may be considered as those that a teacher comes on given consequence to certain professional rules for the principles. They are rational and deliberate deeds performed accordance with professional calling. The first step towards systematic classroom management is made when a teacher understands how to control his communication so that he can use his influence as a social force. According to Rabindiranath Tagore, "A teacher can never truly teach unless he is still learning himself. A lamp can never light another lamp unless it continues to burn its own flame".

So the teachers have to up date their knowledge and skills in their subjects. The teachers' self-efficacy will help them become better teachers. Morey Marilyn (1996) found that the students' achievement in science was higher in schools where the teachers have a higher sense of science teaching efficacy. So the self-efficacy of the teacher shows better academic achievement among the students. Lanter and Maureen Lacey (2003) observed that the teacher efficacy was related to collaboration through the power of shared resources and further it was related to empowerment through the role of self-confidence. So the investigator has decided to find the relationship between science teaching competency and the self-efficacy of the teachers.

OBJECTIVES

- ★ To study the level of science teaching competency and self-efficacy of the primary school teachers.
- ★ To find out the significant difference, if any, in science teaching competency and its dimensions of primary school teachers with reference to gender, locality of school and marital status.
- ★ To find out the significant difference, if any, in self-efficacy of primary school teachers with reference to gender, locality of school and marital status.
- ★ To find out the significant relationship between science teaching competency and self-efficacy of primary school teachers with reference to gender and locality of school.

HYPOTHESES

1. There is no significant difference in the science teaching competency and its dimensions of the primary school teachers with reference to gender, locality of school and marital status.
2. There is no significant difference in self-efficacy of primary school teachers with reference to gender, locality of school and marital status.
3. There is no significant relationship between science teaching competency and self-efficacy of primary school teachers with reference to gender and locality of school.

METHODOLOGY

The survey method was found suitable for this investigation.

Population

The population for the study is the primary teachers handling third, fourth and fifth standard of the primary schools of Tenkasi Educational District.

Sample

The investigator randomly selected 79 schools in Tenkasi educational district in Tirunelveli. From these schools the teachers are selected with the help of stratified random sampling technique. The sample consists of 210 primary school teachers.

Tools Used

- i) Science teaching competency scale is a standardized tool prepared by Dr. P. Annaraja and V.L. Dorothy Rani.
- ii) Self-efficacy scale for the teachers is a standardized tool prepared by Megan Tschannen-Moran and Anita Woolfolk Hoy.

Statistical Techniques

Statistical techniques like percentage analysis, 't' test, and correlation 'r' were used.

DATA ANALYSIS AND INTERPRETATION

Percentage Analysis

Table 1
Level of science teaching competency of primary school teachers

Science Teaching Competency and its dimensions	Low		Moderate		High	
	N	%	N	%	N	%
Arousing interest in science	40	19.0	133	63.3	37	17.6
Providing scientific experience	40	19.0	128	61.0	42	20.0
Developing scientific attitude	38	18.1	119	56.7	53	25.2
Exposing science through nature	48	22.9	112	53.3	50	23.8
Updating scientific knowledge	30	14.3	153	72.9	27	12.9
Science teaching competency	36	17.1	135	64.3	39	18.6

It is inferred from the table 1 is 19.0 percent of primary school teachers have low, 63.3 percent have moderate and 17.6 percent have high level of arousing interest in science.

The above table reveals that 19.0 percent of primary school teachers have low, 61.0 percent have moderate and 20.0 percent have high level of providing scientific experience.

It is observed from the above table that 18.1 percent of primary school teachers have low, 56.7 percent have moderate and 25.2 percent have high level of developing scientific attitude.

The above table reveals that 22.9 percent of primary school teachers have low, 53.3 percent have moderate and 23.8 percent have high level of exposing science through nature.

The above table shows that 14.3 percent of primary school teachers have low, 72.9 percent have moderate and 12.9 percent have high level of updating scientific knowledge.

It is observed from the above table that 17.1 percent of primary school teachers have low, 64.3 percent have moderate and 18.6 percent have high level of science teaching competency.

Table 2
Level of self-efficacy of primary school teachers

Self-efficacy and its dimensions	Low		Moderate		High	
	N	%	N	%	N	%
Efficacy in student engagement	27	12.9	153	72.9	30	14.3
Efficacy in instructional strategies	31	14.8	148	70.5	31	14.8
Efficacy in class room management	31	14.8	140	66.7	39	18.6
Self-efficacy	27	12.9	155	73.8	28	13.3

It is inferred from table 2 is 12.9 percent of primary school teachers have low, 72.9 percent have moderate and 14.3 percent have high level of efficacy in student engagement.

The above table reveals that 14.8 percent of primary school teachers have low, 70.5 percent have moderate and 14.8 percent have high level of efficacy in instructional strategies.

The above table reveals that 14.8 percent of primary school teachers have low, 66.7 percent have moderate and 18.6 percent

have high level of efficacy in classroom management.

The above table reveals that 12.9 percent of primary school teachers have low, 73.8 percent have moderate and 13.3 percent have high level of self-efficacy.

Hypotheses Testing

Null Hypothesis – 1 (a)

There is no significant difference in the science teaching competency and its dimensions of the primary school teachers with reference to gender.

Table 3
Difference in Science Teaching Competency and its dimensions of
Primary school Teachers with reference to gender

Sl. No.	Science Teaching Competency and its dimensions	Gender	Mean	SD	N	't' Value	Remark at 5% level
1	Arousing interest in science	Male	11.99	2.32	102	0.42	NS
		Female	12.13	2.54	108		
2	Providing scientific experience	Male	14.26	2.26	102	0.85	NS
		Female	14.54	2.39	108		
3	Developing scientific attitude	Male	9.40	2.04	102	2.49	S
		Female	10.10	2.03	108		
4	Exposing science through nature	Male	9.58	2.93	102	2.79	S
		Female	10.64	2.56	108		
5	Updating scientific knowledge	Male	10.58	2.07	102	2.97	S
		Female	11.43	2.06	108		
6	Science teaching competency (Total)	Male	55.81	9.12	102	2.35	S
		Female	58.83	9.53	108		

(Table Value at 5% level = 1.96) NS - Not Significant; S - Significant

It is inferred from the above table that there is no significant difference between male and female teachers in arousing interest in science and providing scientific experience but there is significant difference between male and female teachers in developing scientific attitude, exposing science through nature, updating scientific knowledge and science teaching competency. That is, the female

teachers are better than the male teachers in their developing scientific attitude, exposing science through nature, updating scientific knowledge and science teaching competency.

Null Hypothesis – 1 (b)

There is no significant difference in the science teaching competency and its dimensions of the primary school teachers with reference to locality of school.

Table 4
Difference in Science Teaching Competency and its dimensions of
Primary school Teachers with reference to locality of school

Sl. No.	Science Teaching Competency and its dimensions	Locality of school	Mean	SD	N	t Value	Remarks at 5% level
1	Arousing interest in science	Rural	12.07	2.43	153	0.03	NS
		Urban	12.05	2.45	57		
2	Providing scientific experience	Rural	14.51	2.31	153	1.06	NS
		Urban	14.12	2.36	57		
3	Developing scientific attitude	Rural	9.80	2.07	153	0.49	NS
		Urban	9.65	2.05	57		
4	Exposing science through nature	Rural	10.13	2.89	153	0.06	NS
		Urban	10.11	2.54	57		
5	Updating scientific knowledge	Rural	10.96	2.19	153	0.65	NS
		Urban	11.16	1.87	57		
6	Science teaching competency (Total)	Rural	57.47	9.81	153	0.28	NS
		Urban	57.09	8.42	57		

(Table Value at 5% level = 1.96) NS - Not Significant; S - Significant

It is observed from the above table that there is no significant difference between rural and urban primary school teachers in arousing interest in science, providing scientific experience, developing scientific attitude, exposing science through nature,

updating scientific knowledge and science teaching competency.

Null Hypothesis - 1 (c)

There is no significant difference in the science teaching competency and its dimensions of the primary school teachers with reference to marital status.

Table 5
Difference in Science Teaching Competency and its dimensions of
Primary school Teachers with reference to marital status

Sl. No.	Science Teaching Competency and its dimensions	Marital status	Mean	SD	N	't' Value	Remark
1	Arousing interest in science	Married	12.12	2.41	188	0.90	NS
		Single	11.59	2.61	22		
2	Providing scientific experience	Married	14.49	2.35	188	1.84	NS
		Single	13.64	2.03	22		
3	Developing scientific attitude	Married	9.90	2.01	188	2.70	S
		Single	8.59	2.17	22		
4	Exposing science through nature	Married	10.32	2.77	188	3.45	S
		Single	8.41	2.42	22		
5	Updating scientific knowledge	Married	11.22	2.06	188	5.07	S
		Single	9.27	1.66	22		
6	Science teaching competency (Total)	Married	58.05	9.25	188	3.17	S
		Single	51.50	9.16	22		

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

NS - Not Significant; S - Significant

It is inferred from the above table that there is no significant difference between married and unmarried primary school teachers in arousing interest in science and providing scientific experience but there is significant difference between married and unmarried school teachers in developing scientific attitude, exposing science through nature, updating scientific knowledge and science teaching competency. That is,

the married teachers are better than the unmarried teachers in their developing scientific attitude, exposing science through nature, updating scientific knowledge and science teaching competency.

Null hypothesis – 2 (a)

There is no significant difference in self-efficacy of primary school teachers with reference to gender.

Table 6**Difference in Self-efficacy of primary school teachers with reference to gender**

Sl. No.	Self-efficacy and its dimensions	Gender	Mean	SD	N	't' Value	Remark
1	Efficacy in student engagement	Male	24.23	3.97	102	0.63	NS
		Female	24.55	3.33	108		
2	Efficacy in instructional strategies	Male	24.48	3.94	102	1.76	NS
		Female	25.39	3.54	108		
3	Efficacy in classroom management	Male	24.83	3.92	102	1.29	NS
		Female	25.49	3.44	108		
4	Self-efficacy	Male	73.54	10.42	102	1.39	NS
		Female	75.43	9.12	108		

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

It is inferred from the above table that there is no significant difference between male and female primary school teachers in their efficacy in student engagement, instructional strategies, classroom management and self-efficacy.

Null hypothesis – 2 (b)

There is no significant difference in self-efficacy of primary school teachers with reference to gender.

Table 7**Difference in Self-efficacy of primary school teachers with reference to locality of school**

Sl. No.	Self-efficacy and its dimensions	Locality of school	Mean	SD	N	't' Value	Remark at 5% level
1	Efficacy in student engagement	Rural	24.37	3.74	153	0.17	NS
		Urban	24.46	3.43	57		
2	Efficacy in instructional strategies	Rural	25.14	3.94	153	1.33	NS
		Urban	24.44	3.17	57		
3	Efficacy in classroom management	Rural	25.07	3.89	153	0.76	NS
		Urban	25.46	3.10	57		
4	Self-efficacy (Total)	Rural	74.57	10.30	153	0.16	NS
		Urban	74.35	8.38	57		

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

It is inferred from the above table that there is no significant difference between rural and urban primary school teachers in their efficacy in student engagement, instructional strategies, classroom management and self-efficacy.

Null hypothesis – 2 (c)

There is no significant difference in self-efficacy of primary school teachers with reference to gender.

Table 8

Difference in Self-efficacy of primary school teachers with reference to marital status

Sl. No.	Self-efficacy and its dimensions	Marital status	Mean	SD	N	't' Value	Remark at 5% level
1	Efficacy in student engagement	Married	24.65	3.45	188	2.46	S
		Single	22.18	4.56	22		
2	Efficacy in instructional strategies	Married	25.37	3.35	188	3.67	S
		Single	4.99	4.99	22		
3	Efficacy in classroom management	Married	25.50	3.51	188	3.52	S
		Single	22.36	4.01	22		
4	Self-efficacy (Total)	Married	75.52	9.02	188	3.65	S
		Single	65.91	11.96	22		

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

It is inferred from the above table that there is significant difference between married and unmarried primary school teachers in their efficacy in student engagement, instructional strategies, classroom management and self-efficacy. That is, the married teachers are better than the unmarried teachers in their efficacy in student engagement, instructional

strategies, classroom management and self-efficacy.

Null hypothesis – 3

There is no significant relationship between science teaching competency and self-efficacy of primary school teachers with reference to gender, locality of school and marital status.

Table 9

Relationship between Science Teaching Competency and Self-efficacy of primary school teachers with reference to gender and locality of school

Sl. No.	Background Variables	Categories	N	Calculated 'r' value	Table value	Remark at 5% level
1	Gender	Male	102	0.400	0.195	S
		Female	108	0.382	0.195	S
2.	Locality of School	Rural	153	0.408	0.159	S
		Urban	57	0.358	0.273	S

It is inferred from the table 9 is that there is significant relationship between science teaching competency and self-efficacy of the primary school teachers with respect to gender and locality of school.

FINDINGS

- ★ The level of science teaching competency of primary school teachers with reference to gender, locality of school and marital status is average.
- ★ The level of self-efficacy of primary school teachers with reference to gender, locality of school and marital status is average.
- ★ (a) There is no significant difference between male and female primary school teachers in their science teaching competency – arousing interest in science and providing scientific experience with reference to gender.
- (b) There is significant difference between male and female primary

school teaches in their science teaching competency – developing scientific attitude, exposing science through nature, updating scientific knowledge and total science teaching competency with reference to gender.

- ★ There is no significant difference between rural and urban school primary teachers in their science teaching competency - arousing interest in science and providing scientific experience, developing scientific attitude, exposing science through nature, updating scientific knowledge and total science teaching competency with reference to locality of school.
- ★ (a) There is no significant difference in science teaching competency and its dimension between primary school teachers – arousing interest in science and providing scientific experience with reference to marital status.

(b) There is significant difference in science teaching competency and its dimension between primary school teachers – developing scientific attitude, exposing science through nature, updating scientific knowledge and total science teaching competency with reference to marital status.

- ★ There is no significant difference in self-efficacy and its dimensions of primary school teachers with reference to gender and locality of school.
- ★ There is significant difference in self-efficacy and its dimensions of primary school teachers – efficacy in student engagement, efficacy in instructional strategies, efficacy in classroom management and total self efficacy with reference to marital status.
- ★ There is significant relationship between science teaching competency and self-efficacy of primary school teachers with reference to gender and locality of school.

INTERPRETATIONS

The 't' test results reveal that the female teachers are better in developing scientific attitude, exposing science through nature, updating scientific knowledge and science teaching competency than the male teachers. This may be due to the fact that the female teachers are more aesthetic centered, keen in making and giving minute things. They are perfect and sincere in developing scientific attitude among children.

The 't' test results reveal that married primary school teachers are better in developing scientific attitude, exposing science through nature, updating scientific knowledge and science teaching competency than unmarried primary school teachers. This may be due to the fact that the married teachers have experience in teaching and they have personal touch with the students.

The 't' test results reveal that the married teachers have better efficacy in student engagement, instructional strategies, classroom management and self-efficacy than the unmarried teachers. This may be due to the fact that they know very well about the behaviour of students, tactics, and skills and will be strict towards the students. So they can easily ensure student participation and handle the class in an interesting manner.

The correlation analysis shows that there is significant relationship between science teaching competency and self-efficacy of the primary school teachers. This may be due to the fact that the self-efficacy of the primary school teachers influence the teaching competency. Further, the skills in teaching will make them efficient teacher. These efficient teachers will show love and affection towards the students. More over, they will become more creative and dynamic in their tasks.

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CULTURAL INTELLIGENCE: A ROAD AHEAD IN INTELLIGENCE

9

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INTRODUCTION

Although globalization increases intercultural interactions and leads the world as flat, also increases the probability of cultural misunderstanding, tensions and conflicts. Cultural intelligence (CQ) was conceived at the turn of 21st century to culminate ideological clashes and cultural conflict. Once upon a time there was just IQ which measures the cognitive ability to grasp and reason correctly with concepts and solve problems. Then EQ came. EQ measures an individual's ability to express his emotions as well as recognize others emotions. Now there's CQ i.e., cultural intelligence which consists of knowing about their own and other people's culture.

CONCEPTUALISATION OF CULTURAL INTELLIGENCE

Earley and Ang (2003) introduced the concept of cultural intelligence which is defined as 'an individual's capability to function and manage effectively in culturally diverse settings.' CQ is the ability of an individual to detect, assimilate, reason and on cultural cues appropriately in situations characterized by social settings and global contexts. Cultural intelligence

can also be understood as the recognizing and understanding of the beliefs, values, attitudes and behaviors of a group of people and the capability to apply the knowledge towards the achieving of specific goals. Just as EQ complements IQ as important for high quality interpersonal relationships, CQ is another complementary form of intelligence that can be explain variability in coping with diversity and functioning in new cultural settings. Cultural intelligence considers cultural, sociological and individual dynamics that occur for each us in cross-cultural setting.

CULTURAL INTELLIGENCE AS A MULTIDIMENSIONAL CONSTRUCT

Earley and Ang (2003) positioned Cultural intelligence as multidimensional construct based on Sternberg's and Determan's (1986) multiple loci of intelligence framework. The following are the four primary factors of cultural intelligence.

METACOGNITIVE CQ (CQ STRATEGY)

Metacognitive CQ insists the mental capability of individuals to acquire and evaluate cultural knowledge. It refers to

high level cognitive strategies and deep information and executive processing that allow developing heuristic for social interaction across cross-cultural contexts. It occurs when people make judgments about their own thought processes and those of others. It involves capabilities to plan, monitor and revise mental models of cultural norms. The sub-dimensions of metacognitive CQ are:

I. Planning

- Planning is based on thinking deeply or to prepare for a cross cultural encounter anticipating how they might respond to different approaches.
- It can relate to the self, others and the intercultural situations.

II. Awareness

- Awareness is defined as the capability of knowing about oneself, others and the situation in specific cultural contexts.

III. Checking

- Checking is defined as reviewing assumptions and adjusting mental maps when actual experiences differ from expectations.
- It involves comparing expectations and actual occurrences during inter-cultural interactions.
- It can be a function of conscious and /or unconscious associative learning.

COGNITIVE CQ (CQ KNOWLEDGE)

Cognitive CQ refers to an individual's general knowledge and knowledge

structures about cultural institutions norms, practices and conventions in different cultural settings. It is a person's capability in directing knowledge and understanding of how cultures are similar and how cultures are different. This has been the traditional focus of most cross-cultural training, educating individuals on the different behaviors and practices in different cultures.

I. Culture-General Knowledge

- Culture-general knowledge is defined as the declarative knowledge of the major elements that constitute the cultural environment.
- It is a general element that characterizes culture is important because it provides people with an organizing framework for thinking about possible ways that cultures might be similar and different.
- It emphasizes broader comparison across cultures based on ethic or outsider understandings and comparison.

II. Context-Specific Knowledge

- Context-specific knowledge is defined as the declarative knowledge of how cultural universals are manifested in a specific domain and procedural knowledge of how to be effective that domain.
- It sometimes referred as emic or insider understanding.

MOTIVATIONAL CQ (CQ DRIVE)

Motivational CQ refers to the mental capacity to direct attention and sustain energy toward learning about and functioning and performing in intercultural situations. It addresses the motivated nature of conscious cognition that is critical for real world problem solving. It also includes the extrinsic value people place on culturally diverse interaction as well as their sense of confidence that can function effectively in settings characterized by cultural diversity.

I. Intrinsic Interest

- Intrinsic interest refers to the degree to which you derive work from culturally diverse situations.
- It is also defined as valuing culturally diverse experience in and of itself, because it is inherently satisfying.

II. Extrinsic Interest

- Extrinsic interest is defined as valuing the tangible, personal benefits that can be derived from culturally diverse experiences.
- This includes a sense of increased employability based on having intercultural experiences and an enhanced reputation based on international work experience.

III. Self Efficacy to Adjust

- Self efficacy to adjust is defined as having task –specific confidence to culturally diverse situations.

- It mainly focuses on feeling capable of dealing with the stresses of adjusting to new cultures.
- It also includes a sense of confidence to interact with locals who have different cultural backgrounds and confidence to work in culturally diverse groups and settings.

BEHAVIORAL CQ(CQ ACTION)

Behavioral CQ reflects the capability to flex behaviors to fit different cultural contexts. It focuses on the capacity to exhibit outward manifestations or overt actions. It also refers to an individual's capability to enact a wide repertoire of verbal and non verbal actions when interacting with people from different cultures. It allows people to manage and regulate social behaviors in inter-cultural encounters so there is minimal misperception and misattribution. The individual's know when to adapt and when not to adapt when engaging cross-culturally.

I. Verbal Behaviour

- Verbal behavior is defined as flexibility in vocalization.
- It focuses the capability to flex verbal behavior includes speaking faster or slower, louder or softer, and varying the amount of inflection.
- It also includes changing the amount of warmth, enthusiasm, and formality conveyed by style of expression.
- It includes flexibility in using pause, and silence because cultures differ in the extent to which they take turns and use/avoid silence.

II. Non-Verbal Behaviour

- Non-verbal behavior is defined as in communication that is conveyed via gestures, facial expressions and body languages, rather than through words, because some cultures are neutral and others are expressive.
- Non-verbal behavior flexibility includes standing and sitting closer together / farther apart and changing then amount and nature of physical contact and eye contact with others.

III. Speech Acts

- Speech acts is defined as flexibility in manner of communicating specific types of messages such that requests, invitations, apologies, gratitude, disagreement and saying 'no' are expressed appropriately based on local standards.
- This includes the words used, the degree of directness and therefore of speech acts.

CQ AS AN AGGREGATE MULTIDIMENSIONAL CONSTRUCT

The four dimensions of CQ i.e. metacognitive CQ, cognitive CQ, motivational CQ and behavioral CQ are qualitatively different facets of the overall capability, so that they may or may not correlate with each other. Thus the overall CQ represents an aggregate multidimensional construct, which according to law et al, (1998) includes:

1. Dimensions at the same level of conceptualization as the overall construct.
2. Dimensions make up the overall construct.

CULTURAL INTELLIGENCE WHETHER INHERENT OR ACQUIRED

Cultural intelligence consists of specific knowledge about different cultures as well as general knowledge about how cultures work. At the same time, cultural intelligence also requires skills like interpersonal, negotiation, listening and cross-cultural. The most important characteristic however is cultural mindfulness or openness to new experiences and ideas and the ability to keep learning. So, Cultural intelligence is inherent as well as acquired.

CQ AS AN INDIVIDUAL DIFFERENCE

Even though individual difference varies in their specificity and stability, CQ as a specific individual difference construct, focuses on culturally relevant capabilities. Thus it is more specific than broad individual differences, such as general cognitive ability and personality. So, CQ is not specific to a particular culture but, specific to particular types of situations (i.e. culturally diverse).

CQ AND PERSONALITY-RELATED OR UNRELATED

CQ refers to what a person can do to be effective in culturally diverse settings where as, personality describe what a person typically does across time and across situations. Thus CQ is distinct from stable personality traits. It is critical

to note that CQ is malleable and is more of a state-like individual difference that can evolve overtime, can be enhanced through education and training, while personality is relatively stable, trait-like individual difference. Notably and as expected, openness to experience, which is the tendency to be imaginative, creative and adventurous, was related to all four dimensions of CQ. Since temperament influences choice of behaviors and experiences, some personality traits should relate to CQ.

CQ AND GENERAL INTELLIGENCE

General intelligence is defined as the ability to grasp and reason correctly with abstractions and solve problems. CQ is similar to general mental ability which focuses on cognitive abilities, is not specific to particular types of contexts such as culturally diverse situations and does not include behavioral or motivational aspects of intelligence.

EQ – A PREREQUISITE FOR CQ

Cultural intelligence is related to emotional intelligence, but it picks up where emotional intelligence leaves off. A person with high emotional intelligence grasps what makes us human and at the same time, what makes each of us different from one other. A person with high cultural intelligence can somehow tease out of a person's or group's behavior and those that are neither universal nor idiosyncratic. The vast realm that lies between those two poles is culture.

Emotional intelligence focuses on the ability to deal with personal emotions and

is similar to CQ, because it goes beyond academic and mental intelligence. But it differs, however from CQ because it focuses on the general ability to perceive and manage emotions without considerations of cultural contexts. Cultural intelligence is emotional intelligence across contexts which make emotional intelligence a prerequisite for cultural intelligence.

Given that emotional cues are symbolically constructed and historically transmitted within a culture. The ability to encode and decode emotions in the home culture does not automatically transfer to unfamiliar cultures. Thus EQ is culture bound and a person with high emotional intelligence in one cultural context may not be emotionally intelligent in another culture. In contrast, CQ is culture free and not culture specific and refers to a general set of capabilities with relevance to situations characterized by cultural diversity.

Just as emotional intelligence focuses on a leader's ability to work effectively with people by paying attention to the emotions of self and others, cultural intelligence focuses on a leader's ability to function effectively with people and in situations involving different cultural backgrounds, when we interact with people from our own culture we intuitively use a set of social cues to engage effectively.

RELATIONSHIP BETWEEN CQ AND CULTURAL JUDGMENT AND DECISION MAKING

Judgment and decision making broadly refers to human information processes for decision making. Judgment and decision

making tasks require deliberate reasoning, evaluation of evidence and comparison of alternatives. Effective cultural judgment and decision making requires understanding cultural issues and making appropriate interpretations based on cultural values. When people are aware of potential differences in thought processes, they tend to make isomorphic attributions.

INTER-CULTURAL EXPERIENCE AS A PREDICTOR OF CQ

CQ is a malleable individual difference. Accordingly, experience can increase an individual's, to date, the relationship between cultural intelligence and international experience has attracted a large amount of research attention worldwide. Ng, Van Dyne and Ang (2009) insists the value of thinking about CQ as an essential learning capability that is required to transform international experience into effective experiential learning in culturally diverse contexts, rather than conceptualizing international experience as a predictor of CQ.

CQ AND CULTURAL ADAPTATION

When individuals relocate to unfamiliar cultures, they often experience stress because norms and behaviors are unfamiliar and confusing. Since cultural adaptation is a person's sense of fitting in and well being in a particular situation, those with the capability to vary their behavior should have higher cultural adaptation. When individuals are flexible, they are less offensive to others, more likely to fit in and better adapt.

Cultural adaptations comprise two dimensions: socio-cultural and psychological adjustment.

- Socio-cultural adjustments includes general adjustment to foreign living conditions; work adjustment to foreign work culture and interactional adjustment the extent of socializing and getting along with those from another culture.
- Psychological adjustment refers to a person's general mental well-being when immersed in another culture.

CQ AND EXCELLENCE IN TASK PERFORMANCE

Task performance is a function of knowledge, skills, abilities and motivation directed at role prescribed behavior, such as formal job responsibilities. Cultural values however influence role expectations and perceptions of role expectations. Individuals often receive poor performance evaluations when they have a different cultural background, do not understand cultural difference in role expectations and do not conform to role expectations. Performance evaluation is the degree to which individuals to meet role expectations. CQ influenced performance by enhancing cultural adaptation.

CQ - A KEY DIFFERENTIATING FACTOR IN EFFECTIVE LEADERSHIP

Global leaders require cultural competencies to operate effectively in cross-border, multi-ethnic environments. CQ enabled these leaders to set culturally suitable goals, achieve clarity in leadership

and implement more organizational innovations. EQ was a strong predictor of leadership effectiveness in domestic context while CQ was a strong predictor of leadership effectiveness in cross border contexts. This shows that effective domestic leaders are not necessarily effective global leaders, with CQ a key differentiating factor.

CQ AND MULTICULTURAL TEAMS

With globalization and persistent challenges facing groups composed of individuals from different parts of the world, research on CQ has galvanized around multicultural teams. Multicultural teams can draw on the CQ of their members to overcome potential negative processes associated with team diversity and instead tap diversity of member knowledge as strength. Instead of cognitive based trust CQ increased affect-based trust among culturally different members of multicultural professional networks, which in turn led to sharing new ideas, exchanging ideas and cross pollination of ideals. High CQ in team members also expedites team integration, promotes team cohesion and fosters global identity. CQ mitigates emotional conflict typically associated with demographic diversity in teams.

CQ FACILITATES FORMATION OF EXPRESSIVE TIES

CQ as an individual capability can facilitate development of network ties that span geographical, cultural and ethnic boundaries. Individuals in a multicultural university living community participated in structured communal activities including

visits to museums and field trips. CQ predicted denser relationship networks during studying abroad controlling for international experience, host country language fluency and cultural distance. Individuals with high CQ had higher centrality in friendship networks for social support at work but had lower centrality in advice networks at work. Instead, those with longer tenure and more position power occupied central positions in advice networks. In contrast, the role of CQ relative to formation of instrumental ties requires further investigation.

ANTECEDANTS AND CONSEQUENCES OF CQ

Since CQ is more state-like than trait-like, we expect that some personality traits will be the antecedents to CQ. Trait-like individual indifference predict more proximal state-like individual differences because temperament influences choice of behavior and demographic characteristics (e.g. age, experience) as antecedents to the nomological network. To avoid tautological reasoning, we also differentiate CQ (a specific capability type of individual difference) from the consequences of CQ (such as successful functioning in international or other culturally diverse settings).

CULTURAL INTELLIGENCE IN CARVING A FUTURE

It's not enough to know an individual traveled abroad. It seems difficult to provide cultural training to all the individuals in a one size fits in all' manner. Because different

cultures consisting of varying norms and values, Instead CQ is more the capability to be effective across various cultural contexts, it's less about becoming an expert about every culture and more about developing an overall capability that allows you to become effective and respectful in any cultural situation.

ADAPTING ABROAD WHILE BEING YOURSELF

Long ago there's a proverb i.e. "when in Rome do as the Romans". Although attempting to adapt in Rome and do as the proverbial Romans did is an automatic response, it is not necessarily the best one. It's enough to change somewhat our behavior to show respect without losing our sense of self and effectiveness. Nobody expects everyone on a multicultural team to speak everybody else's languages, while the key here is respect in terms of keeping language simple without being offensively overly so. "It's less about becoming an expert about every culture and more about developing an overall capability that allows you to become effective and respectful in any cultural situation."

WHO'S RESPONSIBILITY TO ADAPT?

This is the classic dilemma. How much should I adapt how much I should expect the others to adapt. The simple answer for this question is adapting is the responsibility of anybody who cares about performance. If one person adapts, performance improves a bit. If everybody adapts, performance skyrockets.

ARE NEW COMMUNICATIONS TECHNOLOGIES BRINGING US CLOSER TOGETHER OR DRIVING US FARTHER APART?

The rise of the internet and social media have also given access to an explosion of information sources from all over the world which are available at any time of the day and at the click of a button. So these new technologies have ability to connect us with others. We are becoming more and better informed global citizens rather than we becoming increasingly detached from the society and people around us.

WAYS FOR ACQUIRING AND ENHANCING CULTURAL INTELLIGENCE

1. Start taking language classes. Even though non-verbal communication often transmits a more powerful message than were words that are spoken, language skills are greatly beneficial.
2. Meet other expats who have already lived in this country for a while and ask them about their best-practice tips.
3. Immerse yourself in your new country's rituals and products. You could, for example, read travel guides on local traditions and festivities try cooking some recipes or consume a bit of contemporary popular culture.
4. Do search online to acquire cultural intelligence on your host country or buy a few books on expat living. The materials should explain some hard facts (e.g. History, politics, and economy) give you concrete advice on everyday situations. (e.g., table manner, etiquette).

5. Take seminars on cultural intelligence. There are no specified qualifications for intercultural trainers, so always ask them for references from previous participants.

CONCLUSION

I hope this article facilitates a better understanding of the theoretical conceptualization of CQ and its primary factors. The sub dimensions are practically

useful and more focused on action steps for personal development plans aims at enhancing cultural intelligence. It is said that culture is to people as water is to fish and it is all good of until the fish is out of water! The best way to get help in understanding a culture who has been out .if they haven't been out, they won't know what makes it different for an outsider!" We can't buy cultural intelligence; we must live it in order to authentically be it.

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TEACHING INTELLIGENCE

10

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INTRODUCTION

Teaching is an act or profession of the person who teaches that inculcates knowledge, attitude and skill to learners. Teaching is an art as well as science. It is an art because it exhibits individual difference in its performance. It is science because it follows certain principles and theories. Teaching profession is regarded to be mother of all professions. Teaching profession prepares men and women for all other professions.

Knowing well the content is a criterion for teaching. However, that alone is not enough. Apart from mental make-up, the teacher has to know emotional and social make-up of the students for whom he / she is teaching. If the teaching is in accordance with mental, emotional and social make-up, then his / her teaching will definitely have an effect upon the students.

INTELLIGENCE

Intelligence is defined as the capacity to acquire and apply knowledge. In order to solve a problem, knowledge should be applied in a right manner. Intelligence is the mental ability which helps the individual to

think about minute, complex and abstract matters, to adjust with changing situations by solving various problems as quickly as possible. Following are some of the definitions of intelligence.

Thorndike (1920) defines intelligence as

“Ability to make good responses and is demonstrated by the capacity to deal effectively with novel situations of an abstract, mechanical or social nature”.

Stoddard (1943) puts intelligence as

“The ability to undertake activities that are characterized by (1) Difficulty, (2) Complexity, (3) Abstractness, (4) Economy (5) Addictiveness to a goal, (6) Social value and (7) The emergence of originals and to maintain such activities under conditions that demand a concentration of energy and a resistance to emotional forces”.

SOCIAL AND EMOTIONAL INTELLIGENCE

Many early psychologists began their study of intelligence by directing their attention to cognitive aspects, such as memory, perception, concept formation, thinking and problem solving. However,

early researchers recognized that non-cognitive elements were significant. In 1920's Robert Thorndike wrote about "Social Intelligence". He defined social intelligence as the "the ability to understand and manage men and women, boys and girls – to act wisely in human relations". Thorndike indicated that social intelligence is a part of general intelligence.

David Wechsler recognized non-cognitive features of intelligence are necessary for adaptation and achievement. According to Wechsler (1944), intelligence can be defined as "the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment". In the early 1940's, Wechsler presented the idea of 'non-intellective' and 'intellective' factors. He also proposed that the 'non-intellective' factors were necessary for predicting a person's aptitude for accomplishment.

In 1980, Reuven Bar-On, a clinical psychologist, started to research the question 'Why is it that some people achieve overall emotional health and wellbeing whilst others don't'. He worked directly on measuring emotional intelligence by his tool Emotional Quotient Inventory (EQI). In 1985, he coined the term 'Emotional Quotient'

Howard Gardner (1983) proposed not just one monolithic type of intelligence but a multitude of intelligences. 'Interpersonal' and 'intrapersonal' are two components within the concept of multiple intelligence. These 'interpersonal' and 'intrapersonal' intelligences are as important as cognitive

elements of intelligence. Interpersonal intelligence, or people smart, affords those who have a gift of understanding, appreciating, and getting along well with others. Intrapersonal intelligence, on the other hand, is the ability to understand oneself, knowing who and what one are, and how one fits into the greater scheme of universe.

In 1985, Peter Salovey and John Mayer met and started working on emotions and the role of thinking in emotions. In 1990 they published their first research paper, in which they coined the term 'emotional intelligence', defined it and provided the first scientific measure of emotional intelligence.

In 1995, Daniel Goleman's book, 'Emotional Intelligence: Why it can matter more than IQ ?' was published. He popularized the concept emotional intelligence. It has now sold over five million copies. He wrote another book, 'Working with Emotional Intelligence' in 1998 in which he had explained the domains of emotional intelligence along with its components. He periodically casts webinar, titled, 'more than a sound'.

Thus Emotional Intelligence is, perceiving ours and other emotions, understanding them and use in our thought and action. To conclude, a simple and lucid definition on emotional intelligence by Geetu Bharwaney is given below.

Geetu Bharwaney (2001), 'being emotionally intelligent involves tuning into emotions, understanding them and taking appropriate action'.

TEACHING INTELLIGENCE

Various challenges in education have been tackled / are being tackled to improve enrolment and quality of education. Enhancing the number of institutions, furnishing infrastructure, providing noon meal, supplying books, bags, atlas and gadgets laptops to students, giving various scholarships, refresher programs for teachers and much more are in place to enhance the quantity and quality of education. Even by doing all these does teaching of every teacher is equal in quality? Does every teacher produce students with equal quality? Certainly, it is not.

Teachers differ in degrees of variability in teaching among themselves and with respect to outcome of students. Every teacher is not equally effective with their students. One could remember Dr. Sarvapalli Radhakrishnan, former President of India as a teacher par excellence. One could also remember a mediocre teacher as well. Within these two extreme ends every teacher differs in their teaching in degrees which may follow normal Probability Curve.

Each and every class is unique to a teacher. He / she have to prepare a plan of action to teach. This has to be meticulously executed during the classroom transaction. This usually starts with motivation, introduction of the concept, explanation with examples, illustrations, demonstrations, formative evaluation, summing up and summative evaluation. Many times the classroom transaction may not go as pre scripted. Classroom is not an industrial process where products are obtained with notebook precision. Many

unexpected / unwanted situation may crop up.

Some students may understand and some may not, some students may pose critical questions and some pose irrelevant questions, some students may try to gossip with others, some students are actively participating and some feel sleepy / boring, some students may praise a teacher who was criticized by other / others and there could be multitude of responses from the students. A teacher has to negotiate the art of concept formation in the minds of students by understanding all these types of responses. He / she have to solve the teaching learning problems which may arise on here and now basis where 'Here' represents place of transacting the lesson and 'Now' represents time of transaction.

As Jackson (1962) reports, "the elementary teacher may change the focus of his concern as many as 1000 times daily" (cited by Alavandar, 2001). The focus upon solving teaching learning problems that may arise during classroom transaction may be looked upon as a kind of intelligence, which may be called as, 'Teaching Intelligence'. Teaching intelligence is not teaching the intelligence; rather it is a kind of intelligence for better teaching. Teaching Intelligence, a word mentioned passing reference by Peter Maingay (cited by Alavandar, 2001), did not gather momentum so far. This newer concept, 'Teaching Intelligence' has to be studied in a scientific manner, structured and theories have to be built upon this.

If by some means the teaching quality of the teacher is increased, then student learning will also be improved. If teaching quality increases, the overall quality of education will also improve.

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