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EDITORIAL MESSAGE

The **International Journal of Pedagogical Studies - (IJPS), ISSN: 2321-2306** is an international academic journal that examines the intersection of teacher education and its related pedagogical studies. It strives to maintain its standard as a scholarly, peer-reviewed international journal dedicated to education, and its goal to publish the advance knowledge and research in the field of education. The journal was initiated by Dr.A.Sengottaiah, the Correspondent of Avinasi Gounder Mariammal College of Education, Erode, Tamilnadu in the year 2013 and published annually in the month of August. It maintains rigorous peer-reviewed standards and our expedited review process allows for a thorough analysis by expert peer-reviewers within a time line that is much more favorable than many other academic publications.

It is my pleasant responsibility to lead the journal along with the members of editorial team and we cordially welcome the new members of the editorial board and look forward to an excellent collaboration with the new and continuing members of the editorial board. Also I am fortunate to be supported by the Executive Editor who 'pulls the whole show together' and the highly effective editorial board members. The current group of Associate Editors work incredibly hard particularly in the assessment and processing of submitted articles. Together, we will work hard to enhance the quality of papers, increase the publication frequency, provide meaningful reviews to prevent plagiarism, duplicate articles and unreliable research, and smoothen the editorial management process. We wish to take the journal in a direction where it encompasses all the emerging areas in teacher education and social sciences.

This is the 8th issue of the journal and I wholeheartedly express my gratitude to our article contributors, readers and well-wishers for the support the journal has so far from you and has to be continued to strengthen the determination to maintain the high standards of publications. The interest shown by you people in the journal is praise worthy and encouraging.

IJPS encourages and welcomes unpublished original cum good quality manuscripts from all interested academicians, scholars and practitioners in education on pertinent educational issues that will stimulate and/or enrich discussion forums on improving quality in all aspects of education including teaching and learning, policy, planning, governance, management and others. We gratefully welcome submissions that fit the publication guidelines and if you have a submission that you believe meets our criteria, we encourage you to consider IJPS as an outlet for your academic research.

If you have any suggestions for the improvement of the journal and questions regarding this journal or submission requirements, please feel free to contact the Editors directly at agmcoeijps@gmail.com.

Dr.K.R.KARTHIGAI SELVI
CHIEF EDITOR

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CONTENTS

S.NO	TITLE	P.NO
1	Influence of Brain Hemisphericity in Activating Mind for Development Psychogenic Process in Students - Dr.D.Venkataraman	1
2	Effectiveness of Blended Learning in Enhancing Achievement in English Grammar among Secondary School Students - A.Javeed & Dr.K.Karthigeyan	15
3	Smart Phone Usage and its Adverse Effects on Health among Student Teachers - K.Anitha	24
4	Aggressive Behaviour of Secondary School Students in Relation to School Environment - Dr.V.Iyappan	31
5	Work-Life Balance of School Teachers - S.Maheswari & Dr.C.Shankar	42
6	Influence of Verbal Linguistic Intelligence on the Teaching Competency of B.Ed. Students - Dr.S.Anandaraj	49
7	Assessing Learning Styles of B.Ed and M.Ed Students in Colleges of Education - Dr.A.Sivakumar & Dr.K.Santhanam	56
8	Second Language Aptitude of Higher Secondary School Students - Mary Prasanna	64
9	Exploring the Challenges and Possible Strategies for Effective Staff Recruitment, Selection and Retention in Private Schools in Tamilnadu - Nithya Meenakshi Sundaram	71
10	Cooperative Learning as a Constructivist Teaching Learning Strategy - T.Revathi	84

INFLUENCE OF BRAIN HEMISPHERICITY IN ACTIVATING MIND FOR DEVELOPMENT PSYCHOGENIC PROCESS IN STUDENTS

**** Dr.D.Venkataraman***

Abstract

The present study aimed to explore the influence of brain hemisphericity in activating mind for the development of psychogenic process in students. The study is synochronic in nature, cross-sectional in approach, under taken in the district of Chennai colleges, with the sample size of 250 students. Pre-Conscious identification tool, Brain Hemisphericity preference tool (Solat), and temperament identification tool are the three types of standardized tool validated by the investigator, Venkataraman (1989, 2013). By application of the differential analysis and correlation technique, the analysis concluded, that right brain influences Sattva guna, left brain influences Rajassa and Thamasa guna. It has come to know that mind place a proximate role in activating three different types of guna's (temperaments).

Key Words : *Brain Hemisphericity, Mind and Psychogenic Process.*

INTRODUCTION

The diffusion of western culture into the modern minds of the Indian students traverses the behavior of the students in different forms and promiscuous activities. This created a serious of impact on Student's academic behavior. India as a classical heritage towers with several knowledge background, fails to teach one of the traditional values of respecting the elders and obey the parents and teachers. The student's behaviors were constantly changing due to prevailing western situation which confronts them. In this modern world, each individual or students community was facing trivial problems day to day in academic spheres, family and society. This will relegates students expected

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behavior, instead negative thoughts were stuffed in students mind. Man on the whole encovered with problems of different magnitude and hence he is craving for affection and approval and mental peace of mind.

Man is made up of mixture of temperaments' or three characters namely Sattva gunam, Rajo gunam and Tamasa gunam which is operating in man's behaviors .Everyday man is operated by three temperaments. Early in the morning from 3 am to 6 am. he is operated by Sattva gunam and from 6 am to 6 pm Rajo gunam(Rajassa Gunam) and from 6 pm to 3 am Tamasa gunam. Among the temperaments' one of the temperament is constant and Persistent in man's general behavior. It is important that children's have to be guided in proper way to carry out their functions according to the prevailing temperaments' or gunas(gunam).

In each day man has to posses' three types of temperaments or psychogenic process namely Sattva gunam, Rajo gunam and Tamasa gunam. Mind plays an active role in influencing and controlling the three types of gunas. The present study will create awareness and need to develop Sattva gunam and streamline Rajo gunam and surpass Tamasa gunam. The study emphasizes a need to enlighten on the power of mind in channelizing and activating human mind for the desired behavior. Man should learn to control his behavior by controlling his mind towards the Sattva gunam, which is important for smooth functioning in day to day life.

BRAIN HEMISPHERICITY

Hemisphericity is the cerebral dominance of the individual in acquiring, retaining and Processing different modes of information, in its own style of learning and thinking. The hemispheres both right and left perform different functions through different modes. Indeed, hemisphericity is the tendency of an individual to rely more on one, than the another cerebral hemisphere for information processing, (Venkataraman,1989).

Researchers conducted during the last two decades repeated that the human left cerebral hemispheres is to be Specialized for primary verbal, analytical, abstract, temporal and digital operation (Boyen 1969, Gazaniga 1970, Ornstein 1972). The same investigator has found that the right cerebral hemisphere is to be specialized for primary non-verbal, holistic, concrete, analogical and aesthetic function. The integrated brain

hemisphericity is complementarity in function, dominating the functions of both sides of brain.

The specialized function of each hemisphere appear well lateralized and established early in life and continue essentially unaltered throughout normal life span (Zlinski and Marsh 1976) of the individual. Each hemisphere of the brain is dominant in different types of functions and individual exhibit the behavior based on the dominant of function.

PSYCHOGENIC PROCESS

The Psychogenic processes(temperaments) of the brain are Sattva gunam, Rajo gunam, and Tamasa gunam.The characteristics of three gunams are Sattva gunam (light, bliss, goodness, compassion), Rajo gunam (passion, ego,motion) and Tamasa gunam (intertia,darkness). There are three qualities in the mind corresponding to the three gunam(temperaments). The qualities of Sattva gunam are peace, positive thinking, understanding situation etc. The qualities of Rajo gunam are ego, bold, self-confidence and wrangling nature. The qualities of Tamasa gunam are like to enjoy situation, sensuous feelings, interest in taking more food, dullness, lack of thinking capacity, etc.

SATTVA GUNAM (Intellegence, Goodness)

Sattva gunam is the quality of intelligence, virtue and goodness and creates harmony, balance and stability. It is light (not heavy) and luminous in nature. It possesses an inward upward motion and brings about the awakening of the soul. Sattva provides happiness and contentment of lasting nature. It is the Principle of clarity, wideness and peace, the force of love that unites all things together. A sattvic mind is always purity dual study in mind. The influence of Sattva gunam will enable the individuals to search for the truth and power to analyze what is real and what is not real.

RAJASA GUNAM (Energy, Causes Imbalance)

Rajasa gunam is the quality of change, activity and turbulence. It possesses outward motion and causes Self-seeking action that leads to fragmentation and disintegration. Rajasa gunam is the force of passion that causes distress and conflict. The rajastic mind has a tendency to look into the defects of others. It also remembers bad deeds or wrongs done by others and forgets easily their good acts.

TAMASA GUNAM (Substance, Creates Inertia)

Tamasa gunam is the quality of dullness, darkness, and inertia and is heavy, veiling or obstructing in its action. It functions as the force of gravity that retards things and holds them in specific limited forms. It possesses a downward motion that causes decay and disintegration. Tamasa brings about ignorance and delusion in the mind and promotes insensitivity, sleep and loss of awareness. It is the principle of materiality or unconsciousness that causes consciousness to become veiled.

LEVELS OF MIND

The three levels of mind are conscious mind, Preconscious and unconscious mind are described in this study. The three levels of mind influences man's behavior by channelizing his thoughts.

CONSCIOUS MIND

The conscious mind is our awareness at the present moment. We are aware of something on the outside as well as some specific mental function sharpening on the inside. For example, we are aware of our environment. our breathing, or the chair that we are sitting on. It is a stage of awareness and perception.

UNCONSCIOUS MIND

The unconscious mind consists of the processes in the mind which occurs automatically and is not available to introspection, and includes thought processes, memories, interests and motivations. Empirical evidence suggests that unconscious phenomena include repressed feelings, automatic reactions, and possibly also complexes; hidden phobias and desires. The concept was popularized by the Austrian neurologist and psychoanalyst Sigmund Freud.

Phenomena related to unconsciousness include awakening, implicit memory, subliminal messages, trances, hypnagogia and hypnosis. While sleep, sleepwalking, dreaming, dreaming, delirium, and comas may signal the presence of unconscious processes, these processes are seen as symptoms rather than unconscious mind itself.

PRE-CONSCIOUS MIND

Just below the conscious mind, there are the host of things which one cannot aware of that in a Particular movement, But it could be brought to the conscious mind, if we want to because what are the Experiences we are gaining that has been deposited in

pre-conscious or fore-conscious part of mind. This part of mind area is much faster than the area covered by the conscious part of the mind because, what we recall in the learning matter. Thinking and learning with concentration or recalling will be deposited in this part of brain. This part of brain is positivity motivated towards good words and deeds. Yoga influences this part of brain.

OBJECTIVES

- The foremost objective of the study is to explore the influence of brain hemisphericity in activating mind for the development of psychogenic process in students at higher secondary level.
- To identify the psychogenic process related with different brain hemisphericity and level of students mind.
- To explore the psychogenic process and level of mind with regards to sex, subject of specialization nature of dwelling place of students.

HYPOTHESES

- There is a significant difference between male and female in the levels of mind and Psychogenic process.
- There is a significant difference between students studying arts and science subjects in the levels of mind and Psychogenic process.
- There is a significant difference in the levels of brain hemisphericity preference, level of mind and Psychogenic Process.
- There is a significant difference between rural and urban students in level of mind and Psychogenic Process.
- There is a significant relationship between brain dominance and Psychogenic Process and levels of mind.

METHODOLOGY

The study is based on descriptive method, cross-sectional in approach. The data were collected by applying systematic random sampling technique. The investigator has administered three psychological tools standardised by the researcher namely i) Styles of Learning and Thinking (SOLAT), ii) Teperament Identification Tool [TIT] and

iii) Conscious and Pre-Conscious Scale to elicit necessary information from the college students. The Styles of Learning and Thinking (SOLAT) tool identifies right and left brain and integrated brain dominance in an individual. The tool is based on learning style and thinking style, consist of 30 items in each style, covering 60 items on the whole. The Temperament Identification Tool (TIT**)** evaluates the psychogenic process of an individual personality. It is the respect of personality measurement, it identifies three types of gunman's or temperaments. The three types of temperaments is identified by the Sattva guanam, Rajo gunam, and Tamasa gunam. The tool consists of 30 items. First 10 items (1-10) of the tool measures Sattva gunam; and second item (11-20) measures Rajo gunam and third item (21-30) measures Tamasa gunam. The Conscious and pre-conscious scale evaluate the different levels of mind, functioning in an individual. The tool identifies conscious level of mind, Pre-conscious level of mind and un-conscious level of mind in an individual person. The total items of the tool comprises 60 in number, in which 1 to 20 measures conscious level of mind, 21-40 measures pre-conscious level of mind and 41-60 measures un-conscious level of mind. The standardization norms were established by the researcher. The final drafts of tools were administered to 300 students. Due to improper filling of tools and absence of students for further application of tools, finally 250 students were selected for the final study and statistical applications were applied to realize the objectives of the study.

ANALYSIS AND INTERPRETATION OF DATA

Table - 1

Levels of Mind Operated by Psychogenic Process

Psychogenic Process and Level of Mind	Total Sample 250	
	Mean	**S.D.**
Sattva Guna	54.67	8.64
Rajassa Guna	63.22	10.60
Thamasa Guna	62.16	9.46
Counscious Mind	67.46	8.74
Pre-conscious Mind	76.43	7.61
Unconscious Mind	82.06	18.63

From the mean scores, it has come to know that the college students in Chennai district mostly operated by unconscious mind and Pre-conscious mind and hence mostly they are exhibiting the temperament of Rajassa Guna and Thamsa Guna. From the mean score analysis, it has come to know that the level of conscious mind is operating in low level and hence the temperaments of Sattva Guna is activated by the conscious mind in a low level.

Hypothesis : 1

There is a significant difference between male and female in levels of mind and Psychogenic process.

Table - 2

Gender Difference in Levels of Mind and Psychogenic Process

Levels of Mind and Psychogenic process	Male : 125		Female : 125		't' Value	Level of Significance
	Mean	SD	Mean	SD		
Conscious Mind	38.36	10.05	39.50	9.60	0.92	-
Pre Conscious Mind	36.74	9.67	30.74	9.42	4.97	.01
Unconscious Mind	35.00	10.63	34.07	9.95	0.71	-
Sattva Guna	30.67	5.92	33.55	5.45	3.99	.01
Rajasa Guna	26.25	4.73	23.30	4.26	5.18	.01
Thamasa Guna	26.39	6.95	23.35	6.53	3.56	.01

According to the table, the calculated 't' value is more than the table value at .01 level in three types of temperaments (Gunas) Regarding functioning level of mind, the 't'test analysis identifies the difference at .01 level in Pre-conscious mind, but in rest of the other two levels there is no difference. The analysis demarcated that males possess the temperaments of Rajassa Guna and Thamasa Guna and females have the temperaments of Sattva Guna. Only in pre-conscious level, the gender difference exists, in rest of conscious level and unconscious level both the boys and girls were in equal respects. Hence the stated hypothesis is accepted.

Hypothesis : 2

There is a significant difference between students studying arts and science subjects in the levels of mind and Psychogenic process.

Table - 3

Difference in Level of Mind and Psychogenic Process of Arts and Science Students

Levels of Mind and Psychogenic process	Male : 125		Female : 125		't' Value	Level of Significance
	Mean	SD	Mean	SD		
Conscious Mind	114.00	24.16	120.63	24.61	2.80	.01
Pre Conscious Mind	108.50	24.00	118.60	21.49	3.10	.01
Unconscious Mind	116.89	26.44	106.24	19.41	3.07	.01
Total	**339.39**	**74.40**	**365.50**	**65.50**	**2.57**	**.01**
Sattva Guna	30.67	5.92	33.55	5.45	3.99	.01
Rajasa Guna	26.25	4.73	23.30	4.26	5.18	.01
Thamasa Guna	26.39	6.95	23.35	6.53	3.56	.01
Total	**248.60**	**34.60**	**246.70**	**32.66**	**0.40**	**-**

According to the table, in different levels of Mind there is a significant difference between Arts and Science Students at .01 level. Regarding the Psychogenic Process except in ThamasaGuna, which is significant at .05 level, in rest of the temperaments both the Arts and Science Students are in equal respects.

Hypothesis : 3

There is a significant difference in the levels of brain hemisphericity preference, level of mind and Psychogenic Process.

Table - 4

Difference in Brain Hemisphericity Preference, Level of Mind and Psychogenic Process

Variable	Right Brain N : 73		Left Brain N :70		Integrated Brain N : 107		'F' Ratio	Level of Significance
	Mean	SD	Mean	SD	Mean	SD		
Level of Mind								
Conscious	38.50	10.6	40.59	9.90	39.11	9.94	3.73	.01
Preconscious	37.67	9.64	35.86	9.19	36.34	9.63	3.72	.01
Unconscious	32.60	9.69	36.94	9.89	34.50	9.90	3.70	.01
Total	**107.79**	**28.60**	**113.37**	**28.03**	**109.97**	**29.42**	**3.90**	**.01**

Psychogenic Process								
Sattva Guna	32.94	5.57	30.61	5.70	31.53	5.69	3.96	.01
Rajassa Guna	24.83	6.15	24.52	4.66	26.47	3.80	3.98	.01
Thamasa Guna	25.85	6.78	29.19	8.16	24.96	6.17	5.61	.01
Total	**83.64**	**18.49**	**84.32**	**18.52**	**82.96**	**15.66**	**4.08**	**.01**

The analysis of 'f' test concludes that there is a significant difference between Psychogenic Process and different levels of mind with regard to brain hemisphericity is significant at .01 level. The analysis concluded that calculated 'F' value is more than the table value conveys the information that Psychogenic Process is influenced by difference levels of mind through brain hemisphericity. The analysis pointed that left brain is mostly influenced by conscious mind, followed by integrated brain and right brain preference. Regarding the pre-conscious mind, it is influenced by right brain dominance followed by integrated and left brain dominance. Similarly unconscious mind is influenced by left brain dominance. Regarding the Psychogenic Process, Sattava Guna is mostly influenced by right brain followed by integrated brain; Rajassa Guna is influenced by integrated brain and right brain. The Thamasa Guna is influenced by left brain followed by integrated brain. From the analysis of levels of mind, and related mean scores, and scores related with Psychogenic Process it has come to know that Psychogenic Process is influenced by levels of mind through brain dominance. Hence the stated hypothesis, "Levels of Mind through brain Preference influences Psychogenic Process" is accepted.

Hypothesis : 4

There is a significant difference between rural and urban students in level of mind and Psychogenic Process.

Table - 5

Difference between Rural and Urban Students in Psychogenic Process and in Levels of Mind

Psychogenic Process	Rural Students N : 125		Urban Students N : 125		't' Value	Level of Significance
	Mean	SD	Mean	SD		
Conscious Mind	32.18	8.64	39.84	8.84	6.44	.01
Pre Conscious Mind	36.07	9.41	36.14	8.96	.06	-
Unconscious Mind	33.99	8.66	35.08	8.49	2.73	.01
Total	**34.06**	**8.90**	**37.02**	**8.76**	**3.41**	**.01**
Sattva Guna	32.04	5.70	30.22	6.02	2.98	.05
Rajasa Guna	24.63	4.26	24.58	4.47	.91	-
Thamasa Guna	25.82	6.70	25.11	7.08	.82	-
Total	**82.47**	**16.64**	**80.91**	**17.56**	**.72**	**-**

Regarding the levels of Mind, the 't' value reveals the significant difference in conscious mind unconscious mind and for total levels of mind at .01 level. Regarding the temperaments (Gunas) the 't' test analysis reveals significant difference between rural and urban students at .05 level.

The analysis concluded that level of conscious mind unconscious mind operating in a considerable level with urban students. There is no difference between rural and urban students in functioning level of conscious mind. On the whole in total, the functioning level of mind of urban students are better than the rural students.

Regarding the temperaments, the rural students are Sathvic in nature than the Urban Students. In rest of the Gunas both the Urban and Rural students were equal in respects.

Hence the stated hypothesis, "There is a significant difference between Rural and Urban students in Level of Mind and Psychogenic Process is accepted.

Hypothesis : 5

There is a significant relationship between brain dominance and Psychogenic Process and levels of mind.

Table - 6

Relationship between Psychogenic Process and Levels of Mind with Brain Hemisphericity

Variables	Right Brain N : 70		Left Brain N : 70		Integrated Brain N : 107	
	'r'	Sig.	'r'	LOS	'r'	Sig.
Conscious Mind	.66	.05	.74	.01	.67	.05
Pre Conscious Mind	.82	.01	.60	.01	.70	.01
Unconscious Mind	.65	.05	.78	.05	.64	.05
Sattva Guna	.86	.01	.62	.05	.68	.05
Rajasa Guna	.68	.01	.76	.01	.67	.01
Thamasa Guna	.65	.05.	.74	.01	.66	.05

From the contingency table of correlation it has come to know that there is a relationship between levels of mind and Psychogenic Process (temperaments) with that of brain hemisphericity from .05 level to .01 level. The analysis concludes that there is a relationship between levels of mind and brain hemisphericity. From the results it has come to know that all type of brain influences different level of brain, mostly, conscious brain influenced left brain, pre-conscious mind mostly influenced by Right brain, and unconscious brain mostly influenced by left brain. Regarding the Psychogenic Process, there is a relationship between temperaments and brain hemisphericity preference. Based on values, it is evident that Sattva Guna is mostly influenced by Right Brain, Rajasa Guna is influenced by Left Brain and Thamasa Guna is mostly influenced by the integrated brain. Hence the stated hypothesis, "There is a significant relationshipbetween brain dominance and Psychogenic Process and levels of mind" is accepted.

FINDINGS ON TEMPERAMENTS

- The temperament of Sattva Guna (Sattvic Mind) is operating at average level in students.
- The Rajassa Guna (Quality of Ego) and Thamasa Guna (Dullness and inertia) is operating in students at higher level. The female students were mostly operated by Sattva Gunas and males were operated by Rajassa and Thamasa Guna

temperamental activities. In temperamental activities of Sattva Guna and Rajasa Guna both the Arts and Science Groups were equal. In Thamasa Guna the students who belong to Arts groups were greater than the students who belong to Science group.

- There is a significant difference between brain dominance and Psychogenic process of students. Brain dominance influences temperaments of students. The students belong to Right braindominance are possessing Sattva Guna (temperaments) than the students who belong to integrated brain dominance.The students who belong to integrated brain dominance possessing Rajassa Guna than the students who belong to right brain and left brain dominance. The students belong to integrated brain dominance possess Thamasa Guna than the students who belong to right brain and integrated brain dominance.
- The students belong to rural background possess Sattva Guna than the students who belong to urban background. There is no difference in Rajassa and Thamasa Guna between rural and urban students. There is a close relationship between brain dominance of students and three types of temperaments; but difference exhibits based on the quality of influence, exhibited by the difference brain dominance.
- There is a close relationship between Right brain dominance and Sattva Guna, which indicates that people of right brain dominance is influenced by Sattva Guna. Rajassa Guna and Thamasa Guna s influenced by Left brain dominance. The people who are dominated left brain mostly exhibits the temperaments of Rajassa Guna and Thamasa Guna. According to the dominance of brain, the students belong to integrated brain dominance exhibits all three types of temperaments according to the situation arises.

FINDINGS ON LEVEL OF MIND

- The students at colleges is mostly influenced by unconscious level of mind, they are unaware for what they are doing, and what they are not doing for their activities. The conscious level of mind is operating at low level when compared with preconscious and unconscious level of mind of students. The pre-conscious

level of male students is operating in a better level when compared with the female students. Apart from pre-conscious level in other level of consciousness both the males and females are in equal respects.

- Both the Arts and Science students differ in their functioning level of conscious mind and in overall functioning level. Both the conscious level and Pre-conscious level of mind is activated by the brain well in Science Students. The students belong to Arts were activated well by unconscious level of mind. In over all activation level of Mind, the students belong to Science group were activated well by different levels of mind. From the mean score analysis of difference levels of mind, there is a significant difference in activation level of kind and difference level of brain.
- Brain influences all levels of mind development. Left brain and integrated brain influences the conscious level of brain. Right brain and integrated brain influences the development of pre-conscious level of mind. Unconscious levels of mind is influenced by left brain functions.
- Urban students were influenced by conscious level of mind and unconscious level of mind. There is no difference between Rural students and Urban students in Pre-conscious level of mind. There is a relationship between functioning level of urban and activation of different levels of mind.
- There is a close relationship between left brain and conscious and unconscious level of mind and close relationship between right brain and integrated brain with pre-conscious level of mind.

DISCUSSION

Brain hemisphericity plays an active role in development of different levels of mind. Learning experiences and learnt experiences influences for the development of difference types of temperaments. It is important to develop Sattva Guna and preconscious and conscious level of mind. Sattva guna and pre-conscious level of mind influences for the enhancement of achievement level of students. To channelize the students behaviour in a proper mode of approach it is important to develop Psychogenic process of Sattva Guna. Critical thinking and development of creativity thinking through

creativity technique will highly helpful for the development of pre-conscious level of mind. The development of pre-conscious mind is important to develop thinking process in a positive way of approach and helps to alleviate the negative thoughts of the brain. In this present modern foregoing world it is important to develop Sattva Guna in students conscious mind and develop academic behavior in pre-conscious level of mind. Yoga practices, reading books on political and spiritual personalities, School Curriculum, Co-curricular and extracurricular activities, listening of discourses will highly helpful to develop and activate proper level of mind and Sattva Guna of temperament.

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EFFECTIVENESS OF BLENDED LEARNING IN ENHANCING ACHIEVEMENT IN ENGLISH GRAMMAR AMONG SECONDARY SCHOOL STUDENTS

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Abstract

Blended learning approach in teaching English language has become a matter of considerable interest to language teachers all over the world. Blended learning is believed to improve students' understanding in learning second language. The employment of offline and online activities is expected to give better outcome than the traditional face-to-face activities. This article presents how blended learning was applied in an English grammar class and whether it significantly improved students' achievement after the treatment. The participants involved in this research were 80 students of standard IX (40 students each in experimental group and control group) studying in a Matriculation School in Oddanchathram, Dindigul district. An experimental research was conducted by comparing the means of the participants' scores in both pre-test and post-test. The analysis figured out that there was a significant improvement, proven by the t-test analysis. The p-value 0.00 was less than alpha 0.05. This research concluded that blended learning was effective to assist the students to learn English grammar. To strengthen the findings, this research also involved informal interview with the students to understand their responses on the use of blended learning in which most of the students stated that blended learning activities help them comprehend and practice the grammar activities easily and to improve their understanding and interest in learning English grammar.

Key Words: *Blended Learning, English Grammar and Secondary School Students.*

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INTRODUCTION

Blended learning has been popular in language learning and teaching methodology due to the fact that this digital era enables both students and teachers to access online sources easily. It should be accepted that today's generation is familiar with technology and students prefer to access their smart phone or laptop than to save piles of papers containing information they look for. One of the advantages of having online files is that students can find out the files they have and read e-books, as an instance, more flexible in time and space. It is, then, inevitable that learning and teaching process should provide online materials and exercises to engage the students' contexts (Levy., Dickerson., & Teague, 2019).

The term "blended learning" is regarded as a new term in relation to the development of the 21st century technology (Wright, 2017). There are some definitions of what so called blended learning. One of them argues that blended learning is applied using various multi-media applied in an ideal way to solve problems (Keshta & Harb, 2016). Blended learning combines face-to-face method and the use of computer in teaching learning process that aims at providing effective and efficient learning experience by combining learning environment which suits the students (Grgurovic, 2011).

RELATED LITERATURE ON EFFECTIVENESS OF BLENDED LEARNING

Mastery of English language learning can only be achieved with the teaching strategies that appeal to various learning styles. Recent studies have proven many benefits of different technology-based instructional materials for effective verbal and written communication (Schmidt., & Hegelheimer, 2014; Pazio, 2016; Khazaei & Dastjerdi, 2017). De Zure (2018) stated that many higher education institutions today are using blended learning as a supplementary means in developing students' language learning. Blended learning approach in teaching foreign language has become a matter of considerable interest to language teachers all over the world. As opposed to pure e-learning which refers to using only electronic media to learn, blended learning supplement traditional face-to-face teaching and learning environment with different kinds of technology-based instruction. Bielawaski and Metcalf (2003) report that blended learning focuses on optimizing achievement of learning objectives by applying the right

learning technologies to match the right learning styles to transfer the right skills to the right person at the right time.

Teaching English language through web-based tools is not totally a new trend. Marsh (2016) states that we have always used a "blend" of teaching approaches in order to provide as rich a learning environment as possible for our learners. What is new is the "expectation" of our learners to use technology in and out of the classroom as part of the learning process. Concerning the individual learner differences and classroom instruction, Lightbown and Spada (2013) also believe that teachers can help learners expand their repertoire of learning strategies and thus develop greater flexibility in their ways of approaching language learning. Thus, various instructional materials including videos, blogs, online forums and other digital tools provide students opportunities to practice the language outside the class.

Blended learning is to figure out the effectiveness of blended learning and cooperative learning to teach grammar in Thailand and it was concluded that blended learning suits the students' need and the teaching goals. (Chansamrong, Tubsree, & Kiratibodee, 2014). Blended learning offers a good opportunity to the students to improve their language skills. However, face-to-face meeting is still important to build the participants' motivation to follow the learning process so that the use of online learning can be exercised to sharpen their cognitive skills (Dettori & Persico, 2017).

OBJECTIVES

- To study the difference in the pre-test scores of achievement in English grammar between experimental group and control group.
- To study the effect of blended learning instructional strategy in developing achievement in English grammar among secondary school students.
- To compare the mean scores of pre-test, post-test and gain scores of achievement in English grammar between experimental group and control group.
- To compare the adjusted mean scores of achievement in English grammar between experimental group and control group by controlling the pre-test scores of achievement in English grammar as co-variate.

HYPOTHESES

- There is no significant difference in the pre-test scores of achievement in English grammar between experimental group and control group.
- There is significant difference in the post-test scores of achievement in English grammar between experimental group and control group.
- There is significant difference in the gain scores of achievement in English grammar between experimental group and control group.
- There is significant difference in the adjusted mean scores of achievement in English grammar between experimental group and control group by controlling the pre-test scores of achievement in English grammar as covariate.

METHODOLOGY

The study is carried by Experimental method that employs pre-test, post-test control group design under the quasi experimental method. The sample includes 80 students of standard IX (40 students each in experimental group and control group). The two intact group of 40 students were matched on their previous scores of achievement in English grammar. The investigator adopted online digital lesson transcript for teaching English grammar content namely “Parts of Speech” and also the investigator used offline mode lesson transcripts for teaching and explaining the same content. The investigator has framed achievement test on English grammar content and administered among the students. Statistical techniques of descriptive analysis, test of significance of difference between mean (t-test), and Analysis of Co-variance (ANCOVA) were used for comparing the pre-test, post-test and gain scores of achievement in English grammar between experimental group and control group.

ANALYSIS AND INTERPRETATION OF DATA

I. Test of significance of difference in the mean scores of achievement in English grammar before intervention.

The objective was to compare the mean scores of achievement in English grammar between experimental group and control group before the experimental intervention. The data were analyzed with the help of two-tailed test of significance of difference and the results are given in Table 1.

Table - 1

Comparison of Mean Pre-Test Scores of Achievement in English Grammar for the Experimental and Control Groups

Groups	Mean	SD	Critical Ratio
Experimental Group	46.10	5.20	1.49
Control Group	44.18	6.22	

Table 1 shows that before intervention, there is no significant difference between the mean pre-test scores on achievement in English grammar of the experimental group (M=46.10, SD=5.20) and control group (M=44.18, SD=6.22) [t= 1.49, $p > 0.05$]. Hence, before intervention, experimental and control groups are equal on their pre-test scores of achievement in English grammar.

II. Test of significance of difference in the mean scores of achievement in English grammar after intervention.

The objective was to compare the mean scores of achievement in English grammar between experimental group and control group after the experimental intervention. The data were analyzed with the help of two-tailed test of significance of difference and the results are given in Table 2.

Table - 2

Comparison of Mean Post-Test Scores of Achievement in English Grammar for the Experimental and Control Groups

Groups	Mean	SD	Critical Ratio	Effect size (Cohen's *d*)
Experimental Group	66.78	5.49	9.09	1.84
Control Group	53.71	7.24		

Table 2 shows that after intervention, there is significant difference between the mean post-test scores of achievement in English grammar of the experimental group (M=66.78, SD= 5.49) and control group (M=53.71, SD=7.24) [t=9.09, $p < 0.05$]. The effect size (Cohen's d= 1.84) indicates that effect of blended learning strategy on achievement in English grammar is higher than teaching through traditional method.

III. Test of significance of difference in the mean gain scores of achievement in English grammar between experimental and control groups.

Table - 3

Comparison of Mean Gain Scores of Achievement in English Grammar for the Experimental and Control Groups

Groups	Mean	SD	Critical Ratio	Effect size (Cohen's *d*)
Experimental Group	20.68	6.54	6.04	1.35
Control Group	9.53	9.67		

Table 3 shows that the t-value obtained for the mean gain scores of achievement in English grammar of the experimental group (M=20.68, SD= 6.54) and control group (M=9.53, SD=9.67) [t=6.04, p<0.05]. The effect size (Cohen's d=1.35) revealed that the experimental group which was taught using blended learning strategy is in an advantageous position when compared to control group taught in traditional method of teaching strategy in enhancing the mean gain scores of achievement in English grammar.

IV. Test the Genuiness of difference in the adjusted mean scores of achievement in English grammar between experimental and control groups.

Table - 4

Data and Result of Adjusted Mean Scores of Achievement in English Grammar: Summary of ANCOVA

Variable	Source of Variance	Sum of Squares	df	Mean Squares	F
Achievement in English Grammar	Between Groups	5.16	1	5.16	67.32
	Within Groups	743.86	38	743.86	
	Total	**749.02**	**39**		

As per table 4, the obtained F value 67.32 , p < 0.05, supports that the effectiveness of blended learning strategy in developing achievement in English grammar among the students after controlling their pre-test scores of achievement in English grammar.

FINDINGS OF THE STUDY

- There is no significant difference in the mean pre-test scores of achievement in English grammar (t=1.49, $p > 0.05$) between experimental group and control group.
- There is significant difference mean post-test scores of achievement in English grammar (t=9.09, $p < 0.05$) between experimental group and control group after the intervention.
- Mean gain scores of achievement in English grammar after blended learning instructional strategy (intervention) is significantly higher than that of traditional method of teaching strategy (t=6.04, $p < 0.05$) among secondary school students.
- Significant difference in the adjusted mean scores of achievement in English grammar associated with experimental group taught through blended learning strategy over the control group [F = 67.32, $p < 0.05$] after controlling the effect of pre-test scores of achievement in English grammar.

CONCLUSION AND IMPLICATIONS

Results from the study showed that blended learning strategy is more effective for enhancing the knowledge and achievement in English grammar components than traditional teaching strategy. Students who have engaged and learned English grammar in blended learning environment are actively engaged in learning process with the help of computers in a synchronised and asychronised mode through discussion, sharing and interpretation of ideas between peers. It is noticed from the informal interview conducted among the students that blended learning activities help them to comprehend and practice the grammar activities easily and to improve their understanding and interest in learning English grammar.

Blended learning supports students understanding about the grammatical knowledge, and application abilities of the concepts learned. Blended learning strategy can serve as the basis for a variety of strategies like e-learning and M-learning etc., that enhance the teaching learning process. Thus, based on the findings, it can be concluded that blended learning is an effective strategy for developing achievement in learning English grammar among the students. Based on the findings it is stated that there is no

single way of blended route. Blended online vocabulary instruction could be effective to help English language learners improve their language skills if digital tools are selected in accordance with students' needs and interests. It is suggested that needs analysis should be conducted to make the best selection of online tools and activities for each particular group of students. Blended learning, when well implemented, has the potential to support English language learning process since it increases the amount of learning compared to that in traditional learning. School authorities may start initiative to give awareness about e-learning and different e-learning environment at secondary classrooms and the teachers and learners can start to develop their own blogs and e-content for sharing information to their students' community. By using blended learning strategy and technology in teaching learning process will enhance the language skills and especially the communication skills among the learners.

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SMART PHONE USAGE AND ITS ADVERSE EFFECTS ON HEALTH AMONG STUDENT TEACHERS

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Abstract

The smart phone, being a very novel invention of humanity, became an inherent part of human's life. Nowadays, smart phones have been considered as the necessity of life. The rapid upheaval of technology and storming fast internet has led to an enormous growth in the number of smart phone users in India. The growing number of smart phones and smart phone owners raises a concern about the adverse effect of using smart phones on human health and life. The present study is aimed to determine the utilization and pattern of smart phone usage and to assess its adverse effect among the younger generation student teachers' health. In order to carry out the study descriptive survey method was adopted in which sample consisted of 276 student teachers (B.Ed students) who were selected randomly from colleges of education in Dharmapuri district. Data were collected by administering a questionnaire and informal interview. The results showed that frequent usage of smart phones caused some physical problems such as irritability, eye strain, headache, neck pain, lack of concentration, stress, sleep disturbance, exhaustion, numbness, ear pain and anxiety.

Key Words : *Smart Phone, Health Problem and Student Teachers.*

INTRODUCTION

Smart phone, a device that was once considered a luxury of the wealthy people has now become a necessity. The rapid upheaval of technology and storming fast internet has led to an enormous growth in the number of smart phone users in India. The unprecedented demand for smart phones in India has made it the second largest smart

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phone users in the world, accounting for more than 900 million users with the fastest growing telecom network (Ghulam Nabi Azad, 2012). There were 291.6 million smart phone users in India by the end of 2017. The number of smart phone users in India is estimated to hit 337 million by the end of 2018. The number of smart phone users in India would reach 490.9 million by 2022 (Prakhar Tripathi, 2018). Around 2/3rd of India's population still lives in rural areas and a huge majority there uses the feature phone. After the arrival of smart phones, the humble feature phones have become 'dumb phones' and smart phone penetration have shown an upward swing in India. Significant increase in smart phone use and their capabilities allow adolescents to access the internet, communicate, and entertain themselves anywhere and anytime.

SMART PHONES – AN INTEGRAL PART OF HUMAN LIFE

The smart phones, being a very novel invention of humanity, became an inherent part of human's life. Nowadays, smart phones have been considered as the necessity of life (Aoki & Downes, 2003). In fact, smart phones have turned from a technological tool to a social tool (Campbell, 2005). The smart phone combines different sophisticated features. It allows users to keep pictures, memories, personal information, correspondence, health and financial data in one place. Smart phones also became an integral part of modern telecommunications facilities. The phones allow people to maintain continuous communication without interruption of their movements and distances. People use their smart phones for variety of purposes such as text messaging, taking pictures, sending photos or videos, accessing internet, sending or receiving emails, playing video games, playing music, recording video, downloading various application, using social networking site, online banking, video call or video chat, getting directions etc (Smith, 2011). Smart phones and handheld devices combine advanced computing capability, such as internet communication, information retrieval, video, e-commerce and other features, that makes the device is one of the necessities for many people.

HEALTH PROBLEMS USING SMART PHONES

During recent years, the use of mobile phones has increased substantially and has been paralleled by a growing concern about the effects on health attributed to exposure to the electromagnetic fields produced by them and their base stations. Demonstrating that radiation causes adverse effects on health would signal a widespread public health problem. The growing number of smart phones and smart phone owners raises a concern about phones' effect on human health and life.

Research studies in medical sciences stated that smart phone usage causes cancer (Gliomas, Meningiomas, and malignant brain tumor) negative effect on reproduction (decrease sperm count, decrease semen volume) and causes increased brain glucose metabolism (Volkow et al., 2011). It had an effect on musculoskeletal system like tingling/ numbness/ pain in the finger and hand, pain in the shoulder and upper extremities. Other non specific symptoms of smart phone uses are dizziness, headache, impaired concentration, memory loss, warmth behind ears, sleep disturbance, stress, depression, anxiety and irritability (Al-Khlaiwi & Meo Sa, 2004). Studies done by Gaby Badre (2008) in Sweden, on teenagers, revealed that restlessness does result amongst those who use their phones excessively. Jennifer (2009) stated that eye strain is obvious due to focusing on the smart phone screen due to continuous texting and playing games. Digital thumb is a nagging problem due to continuous usage of fingers especially, the thumb over the small keypad on the cell phones. Repetitive strain injuries like digital thumb, resulting from repetitive tasks as in typing on mobile phones (Center on Media and Health, 2009). Frei., Poulsen, & Johansen, (2011) stated that excessive use of mobile phones caused the risk of brain tumours. Sara Thomme et al. (2011) found out that high mobile phone use was associated with sleep disturbances and symptoms of depression and also radiation from headphones affects deep sleep. Volkow et al. (2011) reported that chatting for lengthy periods during breaks between classes resulted in giving their lunch a miss affected their appetite. At home, a similar situation may arise when the students indulge in conversations during their meal times. Jennifer Meckles (2014) reported that "attention" gets affected due to increase in mobile phone usage. Many students subsequently confessed to lagging behind in academics, gets lack of concentration and memory loss due to their cell phone addiction.

OBJECTIVES

- To find out the utilisation of smart phones among the student teachers.
- To identify the various smart phone activities engaged by the student teachers.
- To identify the adverse effect of smart phone usage on their health.

METHODOLOGY

The present study is carried by using survey method in which the sample consisted of 276 student teachers who were selected randomly from the colleges of education in Dharmapuri district. Totally 329 students were selected, among them only

276 student teachers had smart phones with internet facilities. Hence the 276 sample were considered in this study. A structured questionnaire was administered among the sample to collect the data and the collected data were analysed by using Percentage analysis. The analyses of data and interpretations are as follows.

ANALYSIS AND RESULTS

Table - 1

Duration of Possessing a Smart Phone

Duration of Use (in Years)	Number of Sample and Percentage
One year	63 (22.8 %)
Two Years	115 (41.7 %)
> 2 years	98 (35.5 %)
Total	**276 (100 %)**

The table 1 showed that as regards of ownership of a smart phone, almost all possessed one. Among them 63 (22.83 %) of the subjects had been using the smart phone for less than a year, while 115 (41.67%) subjects using smart phones for two years and 98 (35.51%) subjects had been using it for more than two years.

Table - 2

Average Number of Minutes Per Day Engaging in Various Smart Phone Activities

Utilisation of Cell-Phone Activity	Average Number of Minutes Per Day Engaging in Smart Phone Activities	
	Mean	**Rank Order**
Whatsapp Texting	72.64	1
Internet	44.40	2
Facebook	38.63	3
Calls	33.10	4
OtherApps	23.60	5
Games and Films	18.92	6
E-mails	18.56	7
YouTube	17.12	8
E Books/ studies related	16.86	9
E papers and magazines	12.20	10

The table 2 disclosed the average number of minutes per day student teachers engaging in smart phone activities. The most engaged activity in smart phone is using whatsapp application and texting followed by engaging in internet, Facebook, Calls, OtherApps, Games, E-mails and YouTube. The least engaged activities in smart phones are reading e papers, searching e books and other study related activities. It showed the student teachers do not eagerly engaged in education related activities in smart phones. Instead they use it for entertainment by texting and involved in social media activities. The adverse state is that being student teachers they did not give much importance to engage in their education related activities.

Table - 3

Some of the Adverse Health Effects of Smart Phone Usage

Main Symptoms	Number of Sample Accepted	Percentage (%)
Irritability	214	77.5 (%)
Eye strain	209	75.7 (%)
Headache	198	71.7 (%)
Neck pain	186	67.4 (%)
Lack of concentration	179	64.9 (%)
Stress	170	61.6 (%)
Sleep Disturbance	156	56.5 (%)
Exhaustion	144	52.2 (%)
Numbness	142	51.4 (%)
Ear pain	98	35.5 (%)
Anxiety	85	30.8 (%)

It is disclosed from the table 3 that smart phone usage had an adverse health effect among the student teachers. By using smart phones they felt the irritability, Eye strain, Headache, Neck pain, Lack of concentration, Stress, Sleep Disturbance, Exhaustion, Numbness, Ear pain and Anxiety.

Hence it is stated that smart phone usage is associated with the selected health problems and the prevalence of health problems were higher in the smart phone users.

DISCUSSION

The present study stated that majority of the student teachers owned a smart phone irrespective of their socio economic background. The student teachers who are having smart phones with internet facility engaged mainly in texting via whatsapp and other social networks like facebook, instragram etc. The adverse state is that the younger generation student teachers do not eagerly engaged in education related activities in smart phones. Though a lot of education related applications are available to enhance their knowledge they were not aware of those applications and instead they use most of their time for entertainment by texting and involved in social media activities. The informal interview conducted by the researcher stated that even during free hours and break time they used to engage with mobile phones that could affect their intra personal and inter personal communication with their friends and classmates. Some of them stated that they could not spend even a day without mobile phones. The students being used their phones in college campus even though mobile phone usage is forbidden in their college campus.

The study also revealed the fact that frequent usage of smart phones is associated with the common health problems like irritability, eye strain, headache, neck pain, lack of concentration, stress, anxiety, sleep disturbance, exhaustion, numbness in fingers and ear pain. The results of the present study is associated with similar studies conductd by Carlberg (2008) Thomee (2011), & Al-Khlaiwi.

Some of the precautionary measures to save our self from smart phone health risks are,

- reduce calling time
- avoid call during weak signal coverage
- keeping phone away from the body
- use landline phone whenever possible
- avoid phone calls when charging
- use hand free devices / ear phones
- turn off mobile phone while sleeping

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AGGRESSIVE BEHAVIOUR OF SECONDARY SCHOOL STUDENTS IN RELATION TO SCHOOL ENVIRONMENT

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Abstract

Aggressive behaviour refers to such verbal, nonverbal and physical behaviour that injures another person indirectly or directly and results in extraneous gains for the aggressor. Education plays an important role in development of human and the relative society. It develops an equilibrised personality of worth. Including the other aspects of personality, it also focuses on the aggressive behaviour. Since secondary school stage is the most crucial stage of formal education, the researcher conducted a study to identify the aggressive behavior among secondary school students in relation to the school environment. A sample of 300 secondary school students was selected randomly from Dharmapuri District. The results revealed that secondary school students showed average aggression. No significant difference was found in aggression of secondary school students in relation to gender and residential area. Students of private secondary school students have significantly more aggressive behaviour than that of Government secondary school students. More favourable school environment results in low aggressive behaviour. A significant negative relationship has been found between aggression of secondary school students and school environment which again validates that higher levels of school environment results in low aggressive behavior.

Key Words : *Aggressive Behaviour, School Environment and Secondary School Students.*

INTRODUCTION

Education plays an importable role in development of society. It works as a helpful tool to modify the behaviour of people. Education teaches people how to behave according to situations. The aim of education is to develop ideal behaviour of citizens

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which leads to an ideal society as well as country. Behaviour is a type of reaction by people which varies from situation to situation. Behaviour is defined in various categories such as aggressive, calm, appropriate, inappropriate behaviour and so on. Behaviour is profoundly influenced by home environment and school environment in early years of life. In these years, individuals develop many behavioural habits from their school environment. However, many studies were conducted on behaviour of school students in relation to family environment. In the present study the researcher explored the aggressive behaviour of secondary school students in relation to school environment.

School environment is the first experience of learners outside of the home settings where they acquire variety of attributes. The attributes acquired in this period remain with their personality throughout the life. Students show many behaviors in different school surroundings such as passive, aggressive and antisocial behaviour. These also influence the student's life as well as academic achievement. The problem of aggressive behaviour in school is increasing through years and is affecting school work at many different levels (Kozina Ana, 2007). There are many factors which may contribute in formation of aggressive behaviour like mental health conditions and physical damage. Aggressive behaviour is reactionary and implusary behaviour and teacher can control the aggressive behaviour in various ways. Younger students may need a time out to calm down before entering the school. Aggression is a stable personal trait lasting from childhood, through adolescence to adulthood (Loeber, Hay, 1997). As proven in many studies, it is a stable trait and when observed in children, it is a major predictor of later adult criminal behaviour (Ferris, 1996; Carr, 1998; Fossati, Maffei, Acquarini and Ceglie, 2003; Van Lier 2005). Therefore, the only sensible thing is to try to influence it in childhood by identifying more aggressive individuals and trying to modify their aggression. That is especially important since aggression predicts future social, psychological, behavioural and educational problems (Schwartz, Nakamoto, Hopmeyer Gorman, McKay, 2006; Crick, 2006). Since school is an important factor in the process of socialization, the aim is to find correlates of aggression in school and try to influence aggression through them.

AGGRESSIVE BEHAVIOUR

Aggressive behaviour defines as a reactionary behaviour which occurs in many situations and allows the person to breaking the rules and regulation of a specific place.

Educational and psychological research conducted from the 1960 to the 1990 has established that academic underachievement in the elementary school years is connected with the failure to make adequate educational progress in teen agers and young adults. The study also demonstrates that in itself early problems with underachievement may not be the main reason of later occurring educational problems. It was noticed that severely disruptive social behaviour in early childhood, particularly aggression, has been implicated as a primary cause of both early and later occurring academic underachievement, problems with truancy and the need for special education and school dropout. With aggressive behaviour showing noticeable increases during the last three decades of the twentieth century and prevalence rates of elementary school children suffering from these behaviour disorders estimated at about 20 percent in the 1990, the negative impact of aggressive behaviour on children's educational progress has become a serious concern for American society (Encyclopedia of Education).

According to Orpinas &Horne (in press), " Aggression is a disposition to dominate without considering others' rights. Aggressive behaviours are intended to hurt another person, either physically or emotionally like pushing, grabbing, slapping, and stealing". In the opinion of Roland & Idsoe (2001), "Aggression can be defined as an emotion that tends to hurt, harm or destroy something or someone. In case of persons, the intention of harm can be psychological. Aggression behaviour involves conflict between individuals of equal level". Nelson (2006) states that there is a conflict of interests between individuals. There is a chance of aggressive behaviour to be observed. The terms aggression and aggressive behaviours are used to refer negative emotions and behaviours respectively. They are considered part of antisocial behaviour, something morally, ethically or legally unacceptable.

Since aggressive behaviour is today's burning problem faced by parents, stake holders and policy makers, the role of school environment is very significant in development and also to control aggressive behaviour. School is platform where planned intervention programs may introduce easily to reduce harmful aggressiveness.

SCHOOL ENVIRONMENT

School environment has been defined in numerous ways. Dave (1963) defined educational environment as "the conditions, processes and psychological stimuli which

effect the educational achievement of the child". It refers to those forces in the environment of the learner which have potentiality to contribute to academic development of the learner. These forces may be a part of the school or college environment, the home environment or the environment of various social organizations. According to Hunt and Sullivan (1974), it consists of school climate as well as the teachers approach to teaching. They consider activities as teaching methods, and institutional programs as well as school climate to be features of the educational environment. Hall (1970) included the dimensions of interactions facilities, willingness to change, student's autonomy, feedback of students on instructor's contribution and task concern. Bhatnagar (1977) observes "the unique quality of the environment largely depends upon specific ways the pupils are treated in the school and classroom". Many of researchers and authors have identified the school environment as a climate which is provided by the teacher in the classroom for the academic performance of the students. School environment includes the physical and aesthetic surroundings, the psychosocial climate and culture of the school. Factors that influence the physical environment include the school building and the area surrounding it, biological or chemical agents, and physical conditions such as temperature, noise and lighting. The psychological environment includes the physical, emotional and social conditions that affect the well-being of students and staff (CDC, 2005). Freiberg (1998) explains that the interaction of various characteristics of school and classroom climate can create a fabric of support that enables all members of the school community not only to learn but also to teach at optimum levels.

OBJECTIVES

- To study the aggression of secondary school students.
- To find out the difference in aggression of secondary school students with respect to Gender.
- To find out the difference in aggression of secondary school students with respect to Residential Background.
- To find out the difference in aggression of secondary school students with respect to Type of School.

- To study the difference in aggression of secondary school students across high, average and low level of School Environment.
- To study the relationship between Aggression and School Environment of secondary school students.

HYPOTHESES

- The level of Aggression of secondary school students is low.
- There exists no significant difference in Aggression of secondary school students with respect to Gender.
- There exists no significant difference in Aggression of secondary school students with respect to Residential background.
- There exists no significant difference in Aggression of secondary school students with respect to type of school.
- There exists no significant difference in Aggression of secondary school students across high, average and low level of School Environment.
- There exists no significant relationship between Aggression and School Environment of secondary school students.

METHODOLOGY

The present investigation is carried out by using descriptive method in which the population consisted of all the secondary school students in Dharmapuri district of Tamilnadu State. A sample of 300 secondary school students from Government and Private schools situated in both rural and urban areas of the district was selected by applying random sampling technique. The researcher has used standardized tools namely Aggression Behavior Scale constructed by Dr. G. P. Mathur (2012) and School Environment Inventory constructed by Dr. Renuka Kumari Sinha to collect data from the sample. Inorder to analyse the data the researcher applied the statistical techniques namely Descriptive analysis (Mean, and Standard Deviation) Didderential analysis (t- Test and One way ANOVA) and correlation analysis (Pearson's Coefficient of Correlation).

ANALYSIS AND INTERPRETATION OF DATA

Hypothesis - 1

The level of Aggression of secondary school students is low.

Table - 1

Level of Aggression of Secondary School Students

Groups	N	Mean	Std. Deviation
Total Sample	300	184.36	25.31
Male	141	185.00	25.44
Female	159	179.83	25.26
Rural	116	187.21	26.12
Urban	184	182.56	24.68
Government	156	178.42	24.25
Private	144	190.78	24.94

Table 1 illustrated the mean scores of secondary school students obtained in Aggression scale. It is revealed that the mean score of total sample is 184.36. In case of gender, mean score of male and female is 185 and 179.83, respectively. On the other hand, mean score of rural secondary school students in aggression is 187.21 which is higher than urban (182.56). Difference can be observed from the mean scores of Government secondary school students (178.42) and private secondary school students (190.78). Mean score of total sample and group wise sample falls under the range of 155-204 which describes an average aggression level according to standardized norms of aggression scale. Hence the hypothesis is not accepted.

Hypothesis - 2

There exists no significant difference in aggression of secondary school students with respect to Gender.

Table - 2

Difference in Aggression of Male and Female Secondary School Students

Gender	N	Mean	Std. Deviation	t value
Male	141	185.00	25.44	0.41
Female	159	183.79	25.26	NS

NS = Not Significant at 0.05 level of confidence.

The table 2 illustrated the mean, standard deviation and t-values of groups i.e. males and females in aggression. It is found out to be the mean scores of aggression in males and females are 185 and 183.79 respectively. The t-ratio is found out to be 0.41, which is lower than the t critical i.e. 1.96 at 0.05 level of confidence. The findings showed the significant difference does not exist in aggression between the genders. Hence, the hypothesis there exists no significant difference in aggression of secondary school students with respect to gender, is accepted.

Hypothesis - 3

There exists no significant difference in aggression of secondary school students with respect to Residential background.

Table - 3

Difference in Aggression of Rural and Urban Secondary School Students

Residential Background	N	Mean	Std. Deviation	t value
Rural	116	187.21	26.13	1.55 NS
Urban	184	182.56	24.68	

NS = Not Significant at 0.05 level of confidence.

The table 3 illustrated the mean, standard deviation and t-values of groups i.e. rural and urban secondary school students in aggression. It is found out to be the mean scores of aggression in Rural and Urban secondary school students as 187.21 and 182.56, respectively. The t-ratio is found out to be 1.55, which is lower than the t critical i.e. 1.96 at 0.05 level of confidence. The result showed that significant difference does not exist in aggression between the rural and urban secondary school students. Hence, the hypothesis

there exists no significant difference in aggression of secondary school students with respect to Residential Background, is accepted.

Hypothesis - 4

There exists no significant difference in aggression of secondary school students with respect to type of school.

Table - 4

Difference in Aggression of Government and Private Secondary School Students

Type of Schools	N	Mean	Std. Deviation	t value
Govt.	156	178.43	24.25	4.35 *
Private	144	190.78	24.945	

** Significant at 0.05 level of confidence.*

The table 4 illustrated the mean, standard deviation and t-values of groups i.e. Government and Private secondary school students in aggression. It is found out to be the mean scores of aggression in Government and Private secondary school students is 178.43 and 190.78, respectively. The t-ratio is found out to be 4.35, which is higher than the t critical i.e. 2.58 at 0.01 level of confidence. The results show that significant difference exists in aggression between the Government and Private secondary school students. Hence, the hypothesis, there exists no significant difference in aggression of secondary school students with respect to type of school is not accepted.

Hypothesis - 5

There exists no significant difference in Aggression of secondary school students across high, average and low level of School Environment.

Table - 5

Differences in Aggression of Students based on High, Average and Low Level of School Environment

Levels of School Environment	N	Mean	Std. Deviation
Low	81	191.33	25.13
Average	157	182.03	24.32
High	62	181.13	26.64
Total	**300**	**184.36**	**25.31**

One Way ANOVA				
Source of Variation	**Sum of Squares**	**df**	**Mean Square**	**F**
Between Groups	5437.028	2	2718.514	4.339 *
Within Groups	186075.809	297	626.518	
Total	**191512.837**	**299**		

** Significant at 0.05 level of confidence.*

The above table 5 shows the sample and scores distribution of secondary school students across the levels of school environment i. e. High, Average and Low. The table explains 81 secondary school students having low level of school environment obtain 191.33 scores in aggression. Whereas, 157 secondary school students lie under the category of average school environment with mean scores in aggression is 182.03. Only 62 secondary school students with 181.13 mean scores in aggression have high school environment. Overall mean score in aggression is 184.36. In order to check the difference in aggression across the high, average and low level of School Environment One Way ANOVA was applied.

The obtained F value is 4.339 which is greater than critical F i.e. 3.04 at 0.05 level of confidence. The finding showed that significant difference existed in aggression among secondary school students across high, average and low level of school environment.

Hypothesis - 6

There exists no significant relationship between Aggression and School Environment of secondary school students.

Table - 6

Coefficient of Correlation between Aggression and School Environment of Students

Variables	R Value
Aggression	-0.168
School Environment	

The table 6 illustrated the coefficient of correlation between Aggression and School Environment of Secondary School Students. The calculated r value between the

variables is found out to be -.168. Whereas, r critical is 0.115 at 0.01 level of confidence. So, the calculated r is greater than r critical which shows significantly negative relationship between School Environment and Aggression among secondary School Students.

FINDINGS AND CONCLUSION

It is revealed from the study that the level of aggression behavior is average among the students. There existed no significant difference in aggression of Male and Female secondary school students, similarly no significant difference existed in aggression of Urban and Rural secondary school students. On the other hand significant difference existed in aggression between the Government and Private secondary school students. Private Secondary School students are more aggressive than that of Government secondary school students. The result also showed that higher levels of school environment results in low aggression and significant negative relationship was found between aggression of secondary school students and school environment. Based on the findings it is concluded that school environment had no influence on aggression behavior of students. Since aggressive behaviour is today's burning problem faced by parents, teachers, stake holders and policy makers, the role of school environment is very significant in development and also to control aggressive behaviour. School is platform where planned intervention programs may introduce easily to reduce harmful aggressiveness among the students.

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WORK-LIFE BALANCE OF SCHOOL TEACHERS

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Abstract

Work-life balance (WLB) refers to the ability of individuals to pursue successfully their work and non-work lives, without pressures from one domain undermining the satisfactory experience of the other. The present study is intended to study about work-life balance of school teachers by adopting normative survey methodology. The investigator used simple random sampling technique to select one hundred samples from three higher secondary schools in Tiruppur District. The main variable selected for the present investigation is work-life balance. The researchers have constructed the Work Life Balance Scale (2018) based on Likert's five point type of research scale and administered the tool among the sample. The collected data were calculated by using descriptive analysis and association analysis (Chi-square) to find out whether there are significant differences among the three groups of subjects with respect of their high, average, and low levels of work-life balance of school teachers. Among the different levels of work-life balance of school teachers 76.0 percentages (majority of the respondents) of school teachers have average work-life balance. The association analysis confirmed that there was significant association exists between high, average and low levels of work-life balance of school teachers

Key Words: *Work-Life Balance and School Teachers.*

INTRODUCTION

Work-life balance can be defined as *finding the right balance between work and life and feeling comfortable with both work and family commitments*. The concept of

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work-life balance is built on the idea that working life and personal life are essentially complementary to one another in bringing about completeness to one's life. However, they are often seen as competing objectives which may demand prioritization and hence subsidize a fuller life. The balance between work, personal work and personal time has to be maintained in the best possible manner. Time is often considered to be most fluid in nature and people find it difficult to manage time in both personal and professional front.

With the changing lifestyles, demanding work life, disintegrating family system, people often complain about not finding enough time or being fatigued too much. Striking the right balance between the two is what makes a happy and a winning employer. Organizations in terms of their practices have to adopt those which match the employee expectations. Someone's life can be considered unbalanced when the amount of time one works causes some sort of conflict or stress in other areas of life. The choices people make about their priorities can cause conflict with bosses, coworkers and/or family members.

Work-life balance is the right balance between work and life and feeling comfortable with both work and family commitments. Therefore, the concept of work-life balance is built on the idea that working life and personal life are essentially complementary to one another in bringing about completeness to one's life. However, they are often seen as competing objectives which may demand prioritization and hence subsidize a fuller life. The balance between work, personal work and personal time has to be maintained in the best possible manner. Time is often considered to be most fluid in nature and people find it difficult to manage time in both personal and professional front. With the changing lifestyles, demanding work life, disintegrating family system, people often complain about not finding enough time or being fatigued too much. Striking the right balance between the two is what makes a happy and a winning life.

Today teaching is more challengeable job and hardest task to fulfilling the needs of diversified learners, societal requirements, parents' expectations, and task fixed by school management along with professional and life development. Teaching is the only job that helps teachers to meet the several of stake holders of education at a time and the professional accountability increases from primary, secondary and senior secondary levels of education. Therefore , the investigator intend to thinking about work –life

balance of school teacher at present context where they have more responsibilities to shape the students with all round development thereby fulfilling the expectation of the society by balancing their work as well as their life.

NEED AND SIGNIFICANCE

Someone's life can be considered unbalanced when the amount of time one works causes some sort of conflict or stress in other areas of life. It is more predominant in the case of teaching job where teacher have to face more challenges in their profession. The choices of teachers make about their priorities can cause conflict with heads, co-workers and even with family members. Stress can also be due to spill over where a teacher is worrying about life issues while at work and worrying about work issues while at home. She/he is responsible for his/her success of life too. Stress can also come from feelings of guilt about the choices being made. Someone's work-life balance is primarily based on their own perception of balance. Today Teacher are facing many problems in teaching, handling students, heavy syllabus which in turn raise the enormous physiological as well as psychological problems such as stress, depression, anxiety and frustration. Therefore the nature of their work as teaching job and life balance is important because she/he is the moral police to guide to society. Therefore the study of teachers' work – life gets more significance than other professions.

OBJECTIVES

- To identify the level of work-life balance of school teachers.
- To identify the significant association of high, average and low levels of work-life balance of school teachers.

HYPOTHESES

- The level of work-life balance of school teachers is high.
- There is no significant association of high, average and low levels of work-life balance of school teachers.

METHODOLOGY

The investigation was conducted among school teachers in Tirupur District by using normative survey methodology. The investigator used simple random sampling

technique to select one hundred samples from three higher secondary schools in Tiruppur District. The main variable selected for the present investigation is work-life balance. The researchers have constructed the Work Life Balance Scale based on Likert's five point type of research scale and administered the tool among the sample. The tool has Forty Five items with twenty one positive statements and twenty four negative statements. The maximum score of an individual on the scale was 225, and while the minimum score could be as low as 45. The reliability of the tool was established by using test – retest method and it was found as 0.85 that shows high reliability of the tool. The collected data were calculated by using percentage analysis, descriptive analysis and association analysis (Chi-square).

ANALYSIS AND INTERPRETATION OF DATA

Hypothesis - 1

The level of work-life balance of school teachers is high.

Table - 1

The Level of Work-Life Balance of School Teachers

Level	N	Percentage	Mean	S.D
Low (45 to 131)	13	13.0%	126.69	3.86
Average (132 to 162)	76	76.0%	146.38	9.30
High (163 to 225)	11	11.0%	176.27	7.26
Total	**100**	**100.0%**	**147.11**	**14.91**

It is clear from the table 1 that among the total sample 13 school teachers (13.0 percent) have low level work-life balance, 76 school teachers (76.0 percent) have average level work-life balance, and 11 school teachers (11.0 percent) have high level work-life balance. The table showed that school teachers with low level of work-life balance had the mean value of 126.69 The mean value of school teachers having average level of work-life balance is 146.38 and the mean value of school teachers having high level of work-life balance is 176.27. Based on the result it is stated that the level of work-life balance of school teachers is average.

Hypothesis - 2

There is no significant association of high, average and low levels of work-life balance of school teachers.

Table - 2

Chi-Square Values for High, Average and Low Levels of Work-Life Balance of School Teachers

Variable	Level	Observed N	Expected N	Residual	Chi-square	df	P value
Work-Life Balance Level Wise Analysis	Low	13	33.3	-20.3	36.40[a]	2	0.000
	Average	76	33.3	42.7			
	High	11	33.3	-22.3			
	Total	**100**					

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.3.

The chi square value of the test statistic among the level wise is 36.440. The footnote for this statistic pertains to the expected cell count assumption (i.e., expected cell counts are all greater than 5): no cells had an expected count less than 5, so this assumption was met. The corresponding p-value of the test statistic is 0.000. Because the test statistic is based on a 3x2 cross tabulation table, the degrees of freedom (df) for the test statistic is df=(R−1) ∗(C−1)=(3−1) ∗(2−1)=2 ∗1=2df=(R−1) ∗(C−1)=(3−1) ∗(2−1)=2 ∗1=2. Since the p-value (0.000) is less than our chosen significance level $\alpha = 0.01$, similarly, the chi-square table value for the degrees of freedom 2 at 0.01 level is 9.21. The obtained chi-square value 36.40 is greater than table value 9.21 at 0.01 levels. Hence null hypothesis is not accepted and it is concluded that there is significant association existed among the teachers with high, average and low levels of work-life balance.

CONCLUSION

The result from the present study stated that school teachers have average level of work-life balance and there is a significant association existed among the teachers with high, average and low levels of work-life balance. Based on the results it is recommended

that teachers should be trained to complete their work tasks in the school in a given time with their creativity, intelligence and work efficacy. Teacher should never practices to postponement of daily work schedule to other day unless or otherwise they are having health problems, unhealthy and having illness. Teachers should promote their habit of practice and to handle the issues arisen from both the family and school equally. A teacher should plan meticulosouly and execute it properly in order to avoid more stagnation of school work. A teacher should understand their capacity to adapt, change, and respond to life's challenges. A teacher could be a successor of both at work and family life. Routine professional work and stress of teacher entirely could affect their work-life balance to a lot that creates boundaries between work force and create family spaces. Since the aspects of Work Place Support (WPS) like good work environment support, organizational support, management head support, and co-worker support really improves the work-life balance of school teachers, those aspects to be ensured by the management heads. The work interference with personal life like time-based, strain-based, behaviour-based should be self analyzed by the school teachers to identify their work domination and interference with personal life. Once the deviation is identified by the school teacher, definitely he/she should get develop suitable balances. The personal life interference with work like stress-related, marital-related, time-related, family intrusion, and dependent-related factors to be considered to improve the work-life balance of school teachers. Orientation programmes should be conducted in schools to eradicate the work stress and enhance the skill of work life balance among the teachers. The work life balance of teachers will have the impact on the qualitative and quantitative organizational performance.

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INFLUENCE OF VERBAL LINGUISTIC INTELLIGENCE ON THE TEACHING COMPETENCY OF B.Ed. STUDENTS

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Abstract

This study aimed to find out the influence of verbal linguistic intelligence on teaching competency of B.Ed. students. In order to study this problem, the survey method has been used to collect the data. The population of the present investigation is all the B.Ed. students studying in Tirunelveli District. From the population, 300 students were randomly selected as the sample for the study. The finding revealed that the level of verbal linguistic intelligence and teaching competency of B.Ed. students are found to be moderate with regard to their gender. The female students are better in verbal linguistic intelligence and teaching competency than the male students. It also revealed that there is a significant influence of verbal linguistic intelligence on teaching competency of B.Ed. students.

***Key Words**: Verbal Linguistic Intelligence, Teaching Competency and B.Ed. Students.*

INTRODUCTION

The teacher is a dynamic force in the educational system. Every profession is important and prestigious but permit me to say that the most important and most prestigious is the teaching profession because teaching profession can be seen as the mother of all professions. This is because every profession is born out of teaching. Education without a teacher is just like a body without soul. Sir John Adams (1980) describes the teacher as a "maker of man". The teacher must be a lover of his pupils. The Secondary Education Commission (1952) rightly points out that "We are convinced that the most important factor in the contemplated educational reconstruction, is the teacher, his professional training and the place that he occupies in the school as

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well as in the community"; the teacher occupies a very important place in the society because he brings about the transfer of the intellectual tradition from one generation to the next. It is fascinating to see how in recent years educational experts around the globe have started to focus on the language dimension when it comes for schools to meet the demands of modern knowledge societies. So language intelligence is essential to learning grammars and literature. Verbal intelligence is one of Howard Gardner's nine multiple intelligences.

A simple linguistic intelligence definition is well-developed verbal and written skills with sensitivity to the rhythm and sounds of words. Verbal intelligence shows up both in the written and the spoken word. Writers, public speakers, and even teachers tend to possess strong levels of this form of intelligence. It can be more generally described as the ability to perceive information, and to retain it as knowledge to be applied towards adaptive behaviours within an environment or context. People with Linguistic intelligence love and are talented with words. They enjoy reading, writing and learning languages. They have an ability to teach and explain things to others. Hence, teaching competency and verbal linguistic intelligence are the important factors of B.Ed. students for their successful professional life.

NEED AND SIGNIFICANCE

Education is essentially a human affair. It is the influence of one person on another. Education begins when one's mind, personality and character interacts with another. The two will inevitably exert the greatest and most enduring influence on the education of the growing child. At present the students are in need of a dedicated teachers who love and care for them. In fact, students expect more dedication from their teachers. The performance of good teachers depends upon the specialization of the subject or fields to be taught and professional knowledge and skill and an understanding of educational process and teaching skills. Therefore they should communicate to their students to eradicate their hesitation.

Today, effective communication has become an essential integral of teaching paradigms. Understanding the factors and concepts that contribute towards effective communication and barriers such as noises will help teachers to develop appropriate strategies for teaching and learning environment. Teaching skills would include

providing training and practice in the different techniques, approaches and strategies that would help the teachers to plan and impart instruction, provide appropriate reinforcement and conduct effective assessment. It includes effective classroom management skills, preparation and use of instructional materials and communication skills. The ability in teaching is the first step in building or shaping a society. Language learning tasks can be developed around different types of intelligences. For instance, an activity such as that of writing the lyrics of a song implies the use of linguistic and musical intelligences. Verbal linguistic intelligence is an excellent tool to enable teachers to plan attractive ways to provide learners with language learning practice. Therefore, the investigator undertakes a study on influence of verbal linguistic intelligence on teaching competency of B.Ed. students.

OBJECTIVES

- To find out the level of Verbal Linguistic Intelligence and Teaching Competency of B.Ed. Students.
- To find out the significant difference between Male and Female B.Ed. Students in their Verbal Linguistic Intelligence and Teaching Competency.
- To find out the significant influence of Verbal Linguistic Intelligence on the Teaching Competency of B.Ed. Students.

HYPOTHESES

- The level of Verbal Linguistic Intelligence and Teaching Competency of B.Ed. Students are high.
- There is no significant difference between male and female B.Ed. students in their Verbal Linguistic Intelligence and Teaching Competency.
- There is no significant influence of Verbal Linguistic Intelligence on Teaching Competency of B.Ed. Students.

METHODOLOGY

The researcher has adopted Survey Method to conduct the present study. For data collection, the investigator used the standardised tool, 'Teaching Competency Scale', comprising of 40 items which was developed by Sumathi and Sheela in the year 2010 and

"Verbal Linguistic Intelligence Scale" comprising of 60 statements, which was developed by the researcher. The investigator had selected the sample of 300 B.Ed. students studying in Tirunelveli District by using random sampling technique. The data were analysed by using descriptive analysis (Mean and Standard Deviation) differential analysis ('t') and regression analysis.

ANALYSIS AND INTERPRETATION OF DATA

The data were subjected to statistical treatment leading to the findings which may satisfy the requirements of the objectives of the study.

Hypothesis - 1

The level of Verbal Linguistic Intelligence and Teaching Competency of B.Ed. Students are high.

Table - 1

Level of Verbal Linguistic Intelligence and Teaching Competency of B.Ed. Students with Regard to Gender

Variable	Verbal Linguistic Intelligence						Teaching Competency					
	Low		Average		High		Low		Average		High	
	N	%	N	%	N	%	N	%	N	%	N	%
Male	20	20.6	67	69.1	10	10.3	23	23.7	68	70.1	6	6.2
Female	23	11.3	158	77.8	22	10.8	20	9.9	154	75.9	29	14.3

It is inferred from the above table that 20.6% of male B.Ed. students have low, 69.1% of them have moderate and 10.3% of them have high level of verbal linguistic intelligence. 11.3% of female B.Ed. students have low, 77.8% of them have moderate and 10.8% of them have high level of verbal linguistic intelligence.

23.7% of male B.Ed. students have low, 70.1% of them have moderate and 6.2% of them have high level teaching competency. 9.9% of female B.Ed. students have low, 75.9% of them have moderate and 14.3% of them have high level of teaching competency.

Hypothesis - 2

There is no significant difference between male and female B.Ed. students in their verbal linguistic intelligence and teaching competency.

Table - 2

Difference between Male and Female B.Ed. Students in their Verbal Linguistic Intelligence and Teaching Competency

Variable	Group	Number	Mean	SD	't' Value	Remarks
Verbal Linguistic Intelligence	Male	97	247.34	28.38	1.98	S
	Female	203	253.91	25.02		
Teaching Competency	Male	97	159.99	19.70	4.40	S
	Female	203	170.07	15.91		

S- Significant at 5% level of significance.

It is inferred from the above table that there is a significant difference between male and female B.Ed. students in their verbal linguistic intelligence and teaching competency. While comparing the mean scores of male and female students, female students (mean = 253.91) are better than the male students (mean = 247.34) in their verbal linguistic intelligence. Female students (mean =170.07) are better than the male students (mean = 159.99) in their teaching competency.

Hypothesis - 3

There is no significant influence of Verbal Linguistic Intelligence on the Teaching Competency of B.Ed. students.

Table - 3

Influence of Verbal Linguistic Intelligence on the Teaching Competency of B.Ed. Students

Independent Variable	Dependent Variable	R Value	R^2	Calculated F Value	Remarks
Verbal Linguistic Intelligence	Teaching Competency	0.620	0.384	85.65	S

S- Significant at 5% level of significance.

It is inferred from the above table that there is a significant influence of Verbal Linguistic Intelligence on the Teaching Competency of B.Ed. students.

FINDINGS OF THE STUDY

The major findings derived from the study are as follows .

- The level of Verbal Linguistic Intelligence and Teaching Competency of male and female B.Ed. students are found to be moderate.
- There is a significant difference between Male and Female B.Ed. students in their Verbal Linguistic Intelligence. Female students are better than the Male students in their Verbal Linguistic Intelligence.
- There is a significant difference between Male and Female B.Ed. students in their Teaching Competency. The Female students are better in Teaching Competency than the Male students.
- There is a significant influence of Verbal Linguistic Intelligence on the Teaching Competency of B.Ed. students.

CONCLUSION

This paper attempted to deal with the importance of verbal linguistic intelligence and the teaching competency of student teachers. It was found that female students are better than the male students in their verbal linguistic intelligence and teaching competency. This may be due to the fact that female B.Ed. students easily mingle with the group customs like essay writing, discussion, debate and speech competitions. They also have enthusiastic nature for teaching and dedicated work. It was also found that there is a significant influence of verbal linguistic intelligence on the teaching competency of B.Ed. students. This may be due to the fact that the students who have high verbal linguistic intelligence can use language to express themselves, and understand other people. Based on the above findings it is suggested that prospective teaching should be motivated to update their knowledge, to meet the various needs of pupils and they achieve high level of teaching competency. Teacher educators should identify the linguistic intelligence of their students and encourage their students to enhance their linguistic abilities and teaching competence.

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ASSESSING LEARNING STYLES OF B.Ed AND M.Ed STUDENTS IN COLLEGES OF EDUCATION

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Abstract

The purpose of this study was to establish the learning styles of B.Ed and M.Ed students in Colleges of Education in order to develop suitable teaching strategies based on their learning styles and also to find out if there is a significant difference on learning style preferences among students based on their gender and nature of course (B,Ed/M.Ed). The Grasha-Riechmann Learning Style Survey (LSS) was adopted to assess the learning styles preferences of students in teacher education colleges. The reliability of the tool was found to be 0.86 (Cronbach's Alpha). In order to collect data the researcher has selected 270 samples by using random sampling technique and collected the data. The data have been analysed by using SPSS in terms of mean, t-test and ANOVA. Results disclosed that student teachers in colleges of education have favoured Dependent and Collaborative learning styles, and least preferred learning style was Avoidant learning style. It also revealed that there is significant differences existed between the groups in their learning styles based on their gender and nature of the course.

***Key Words**: Learning Styles, Student Teachers, Dependent, Independent, Avoidant and Collaborative Learning Styles.*

INTRODUCTION

The most important issue in the learner - centered pedagogical setting at present is the learning approach of the students. It has been the focus of attention in many researches that whether learning approaches affect educational achievement in the field

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of literature or not. Researchers have been of the view that the learning output will definitely augment provided that learning materials and modules are modified in accordance with various types of students (Arslan & Babadogan, 2005; Cengizhan, 2007) . For that reason every teacher wishes to discover about learners' learning approaches before preparing resources and manipulating learning activities, designed for teaching. The intention of present research is to identify the learning styles of learners with the intention of developing teaching strategies and techniques for prearranged for these learners. It would be very pertinent to define learning style first for presenting the context of current study.

"Learning is the process whereby knowledge is created through the transformation of experience" (Kolb.1984). Learning style is typically described as a particular mode according to which an individual learns and thinks, a preferred means of acquiring knowledge, and habits and strategies associated with learning (Pritchard 2005). According to Pham (2000) learning style is the learner's fixed method for responding to and working with existing stimulus in learning circumstances. Honey and Mumford (1992) define learning style as a description of the attitudes and behaviors which determine an individual's preferred way of learning. Stewart and Felicetti (1992) define learning styles as those educational conditions under which a student is most likely to learn. Although slightly different, these definitions share the common underlying attempt to tap into how (modes and processes) students prefer to learn rather than what (content) they learn. David Kolb (1984) is of the view that learning approach indicates the thinking behind it. A prototype of a learning cycle was employed by Kolb to demonstrate that how understanding is interpreted into concepts, which, consequently are utilized as guides in the selection of innovative experiences. Much of Kolb's theory is concerned with the learner's internal cognitive processes. Kolb's experiential learning style theory is typically represented by a four stage Kolb's experiential learning theory works on two levels: a four stage cycle of learning (Concrete Experience, Reflective Observation, Abstract Conceptualization and Active Experimentation) and four separate learning styles (Diverging, Assimilating, Converging and Accommodating).

GRASHA - RIECHMANN LEARNING STYLE INVENTORY

Learning Style Inventory, presented by Grasha and Riechmann advertises perception of learning in an extensive perspective, straddling six categories: competitive, collaborative, avoidant, participant, dependent, and independent. Spirited learners learn stuff with the intention of performing better than others in the class. Collaborative learners believe that they can gain knowledge by sharing thoughts and talents. Avoidant learners are not passionate about educational substance and attending the class. Participants are noble residents in the class. They are enthusiastic to accomplish much of the mandatory and voluntary lessons requirements. Dependent students demonstrate slight intellectual inquisitiveness and they gain knowledge of only what is necessary. Their point of view about instructor and classmates is as basis of organization and support and rummage around for authority figures. Independent students are keen on thinking for themselves and are self-assured about their learning capacities. They have a preference to learn the substance which they feel is vital.

The tool was chosen just because it is one of the common communication approach model which is extensively utilized by many investigators in the field of education. One more justification behind selecting this is the questionnaire entries of this tool which are unswerving associated with the classroom practices and the communications of instructors and learners. For that reason data gathered from learners with the help of this tool reveals learners' observations and performances in the class.

OBJECTIVES

The objectives of the present study are as follows.

- To find out the learning styles of B.Ed and M.Ed students in colleges of education.
- To compare the learning styles of B.Ed and M.Ed students based on their gender and nature of course.

RESEARCH QUESTIONS

- What are the major learning styles preferred by the students in colleges of education?

- Is there any significant difference exist among the students in their learning styles based on their gender and nature of course.

METHODOLOGY

The researcher has selected survey method to carry out the study. The population of the study consisted of all the B.Ed and M.Ed students in colleges of education in Erode district. The sample consisted of 270 students selected from three colleges of education in Erode district. They were randomly selected by the researcher. The Grasha-Riechmann Learning Style Survey (LSS) was adopted and administered to assess the learning styles preferences of student teachers. The reliability of the tool was found to be 0.86 (Cronbach's Alpha). The data were analysed by using SPSS in terms of descriptive (mean and standard deviation), and differential analysis (t-test and ANOVA).

ANALYSIS AND INTERPRETATION OF DATA

The collected data have been analysed based on the objectives and results are interpreted to answer the research questions.

Table - 1

Learning Styles of Students in Colleges of Education

Dimensions of Learning Style	N	Mean	Standard Deviation
Dependent	270	34.02	4.54
Collaborative	270	32.74	4.39
Competitive	270	30.99	4.74
Participant	270	30.07	3.91
Independent	270	27.09	4.10
Avoidant	270	23.98	4.47
Overall	270	178.88	26.15

Table 1 showed the mean scores of students in colleges of education on all dimensions of learning style scale in descending order. The highest mean score was found as 34.02 which is on dependent learning style followed by Collaborative (32.74),

Competitive (30.99), Participant (30.07), and Independent (27.09) learning styles. The lowest mean score of 23.98 was found on avoidant learning style. It is revealed that student teachers' most preferred learning styles were Dependent and Collaborative learning styles, and the least preferred learning style was Avoidant learning style.

Table - 2

Differences in Learning Styles based on Gender

Dimensions of Learning Style	Gender	N	Mean	Standard	t-value	P value
Dependent	Male	44	31.80	4.24	4.98 *	0.001
	Female	226	36.24	3.93		
Collaborative	Male	44	31.76	4.19	3.18*	0.003
	Female	226	33.71	4.26		
Competitive	Male	44	29.59	4.25	2.02*	0.011
	Female	226	32.39	4.32		
Participant	Male	44	28.04	4.02	2.07 *	0.038
	Female	226	32.11	4.36		
Independent	Male	44	26.90	4.18	3.13 *	0.021
	Female	226	27.28	3.88		
Avoidant	Male	44	24.99	4.35	1.26	0.510
	Female	226	22.97	3.81		

*= *Significant at 0.05 level*

The table 2 showed that the mean score of female student teachers is significantly better than their male counterparts on the dimensions of Dependent, Collaborative, Competitive, Participant and Independent learning styles, because the mean score of female is higher on these dimensions. The calculated 't' values are greater than the table value and also 'p'- values are lesser than 0.05 on all these dimensions. On the other hand the dimension of avoidant learning style, the mean score of male student teachers is higher than female student teachers and also mean score difference is not significant because the 't' value is not greater than the table value and 'p' value is greater than 0.05 on this dimensions.

Table - 3

Differences in Learning Styles Based on the Nature of Course

Dimensions of Learning Style	Groups	Sum of Square	Df	Mean Square	F value	P value
Dependent	Between	390.499	2	97.671	5.382 *	0.001
	Within	4069.431	267	18.136		
	Total	**4459.930**	**269**			
Collaborative	Between	195.534	2	48.587	3.691*	0.034
	Within	4244.748	267	18.682		
	Total	**4440.283**	**269**			
Competitive	Between	328.817	2	84.308	6.437*	0.001
	Within	3156.907	267	14.243		
	Total	**3395.724**	**269**			
Participant	Between	241.128	2	60.479	4.321*	0.009
	Within	3704.866	267	16.324		
	Total	**3945.994**	**269**			
Independent	Between	238.846	2	58.726	3.782*	0.014
	Within	4169.528	267	18.781		
	Total	**4408.374**	**269**			
Avoidant	Between	498.158	2	120.560	6.784 *	0.001
	Within	3631.413	267	18.140		
	Total	**4129.571**	**269**			

**= Significant at 0.05 level*

It is revealed from the Table 5 that the calculated F – Values are higher and p-values are lower than 0.05 on all the dimensions of learning style scale. Hence it is stated that there is a significant difference existed in the learning styles among the student teachers of different groups (B.Ed –Arts, B.Ed- Science, M.Ed) based on their nature of courses.

CONCLUSION

It is revealed from the analysis that Dependent learning style and Collaborative learning styles were found to be best learning style for the student-teachers studying in colleges of education, and the least preferred learning style was Avoidant learning style. It is suggested that teacher educators should adopt the teaching strategies and techniques that are best suit to the dependent and collaborative learning styles of the student teachers. It is found that female student-teachers were significantly better than their male counterparts on all dimensions of learning style except avoidant learning style. Results also showed that student-teachers of Arts and Science disciplines in B.Ed course and M.Ed course significantly differ on all the dimensions of learning style. Hence the gap should be eradicated by the teacher educators by administering necessary remedial measures in teaching learning process according to their learning styles. Since teacher education programmes are provided the chance to have collaborative and group work among the prospective teachers it paved the way for them to have dependent and collaborative learning styles.

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SECOND LANGUAGE APTITUDE OF HIGHER SECONDARY SCHOOL STUDENTS

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Abstract

The primary purpose of this study was to determine the level of second language aptitude among higher secondary school students in Salem district of Tamilnadu. The descriptive survey method was adopted in this study in which sample includes 513 students studied in class XI. The students are grouped according to the demographic variables such as gender, locality and nature of school. The researcher made Second Language Aptitude Test (SLAT) was administered to collect data and statistical techniques such as descriptive (mean, standard deviation) and differential analysis t-test) were used to analyse the data. Result revealed that there is a significant difference between the group of students with respect to their gender and nature of school but there is no significant difference exists between rural and urban school students in their second language aptitude.

Key Words : *Second Language Aptitude and Higher Secondary Students.*

INTRODUCTION

Aptitude is a special ability or specific capacity distinct from the general intellectual ability which helps an individual to acquire the required degree of proficiency or achievement in a specific field. Aptitude differs from achievement in i.e., it gives an indication of the future success of an individual. Aptitude is defined as natural or innate capacity for a particular performance (Thorndike and Hagen, 1977) the degree of readiness to learn and to perform well in a particular situation or domain (Corno, 2002). Aptitude test is mentioned in different ways. Aptitude tests are the examinations that help

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to measure a person's ability to acquire specific set of skills. Aptitude tests used to predict the success to some degree (Bingham, Freeman, 1965). Cronbach (1975) stated the principal value of aptitude tests has been prediction, rather than explanation. Aptitude tests are cognitive (intellectual) measures used to predict future performance in some activities such as school learning and other forms of accomplishment (Aiken, 1988). Aptitude tests are widely utilised by educationists in the process of admission and classification of students and guidance services. It measures a student's overall performance across a wide range of mental capabilities and specialized abilities which helps to predict scholastic performance in educational programs. Compared to achievement tests in English subject, aptitude tests look at a wider range of students' experiences.

LANGUAGE APTITUDE

Language aptitude refers to the potential that a person has for learning languages. This potential is often evaluated using formal aptitude tests, which predict the degree of success the candidate will have with a new language. Language aptitude tests are utilized by educational institutions to select students, place them in the appropriate classroom or section and select students for language training. An increasingly important use of language aptitude tests is to aid in the diagnosis of students' foreign language learning disability (FLLD). It can be used in school to aid teachers and counsellors understanding students' cognitive strengths and weaknesses and to provide them guidance.

John Carroll in association with Stanley Sapon conducted foreign language aptitude research in the 1950s and 1960s authored the 'Modern Language Aptitude Test' defended his construct of foreign language aptitude, which includes four factors: phonetic coding, grammatical sensitivity, inductive language learning ability, and rote memory. The 'Pimsleur Language Aptitude Battery' (PLAB) which includes the two components (verbal and auditory ability) designed by Paul Pimsleur in the 1960s is used to predict who will be successful in foreign language learning and diagnosis the disabilities of students in foreign language learning.

In his studies on second language (L2) aptitude, Carroll (1962) speculated that L2 aptitude is independent of intelligence, but that general intelligence may be related to the efficiency of cognitive mechanisms in supporting L2 proficiency. In their studies,

Gardner and Lambert (1998) found that although aptitude and intelligence were correlated, these variables were relatively independent of one another. Related studies on the instrument, the MLAT was found to be strongly predictive of second language learning and achievement (Skehan, 1986). High cognitive ability and foreign language learning aptitude were consistent predictors of success in foreign language learning (John Lett and Francis). Wesche (2016) studied students' individual differences by their performance on the MLAT, and identified two types of language earners, one with strong memory abilities and another with high verbal analytical abilities. Researchers have studied long-term connections among first language skills, second language aptitude and proficiency based on the reasonable hypothesis and found that students' language skills in phonology, grammar, vocabulary played a fundamental role in more and less successful second language learning. Wesche et al., (2016) reported that L2 aptitude and intelligence may share more abstract level of general cognitive ability. Skehan and Ducroquet (1988) administered measures of second language aptitude and achievement in order to test the language skills in which results revealed that first language literacy-related skills, i.e., comprehension, vocabulary, grammar, had an impact on second language learning. According to Sparks and Ganschow (2017), success in learning a foreign language is influenced by cognitive factors. It is well-established that L2 aptitude test MLAT is the most robust predictors of L2 proficiency and achievement (Skehan, 2018; Sparks et al., 2017).

OBJECTIVES

- To find out the level of second language aptitude among higher secondary school students.
- To find out the differences among students in their second language aptitude based on the demographic variables such as, gender, locality of school and nature of school.

HYPOTHESES

- The Second Language Aptitude of higher secondary school students is high.
- There is no significant difference between boys and girls in their second language aptitude.

- There is no significant difference between rural and urban school students in their second language aptitude.
- There is no significant difference between government and matriculation school students in their second language aptitude.

METHODOLOGY

In this study descriptive survey method was adopted to identify and assess the second language aptitude of higher secondary school students. The sample includes 513 students studied in class XI in Salem district of Tamilnadu State selected based on the convenience sampling technique. The students are grouped according to the demographic variables such as, gender, locality of school and nature of school. The researcher made Second Language Aptitude Test (SLAT) which has the reliability index of 0.84, average discriminative and difficulty index of 0.43and 0.54 respectively was administered to collect data. The SLAT is consisted of the items based on a variety of dimensions namely word and letter analogies, problems based on alphabet, blood relationship, calendar sequence test, spellings and grammar. Statistical techniques such as descriptive (mean, standard deviation) and differential analysis (t-test) were used to find out the differences among students in their second language aptitude.

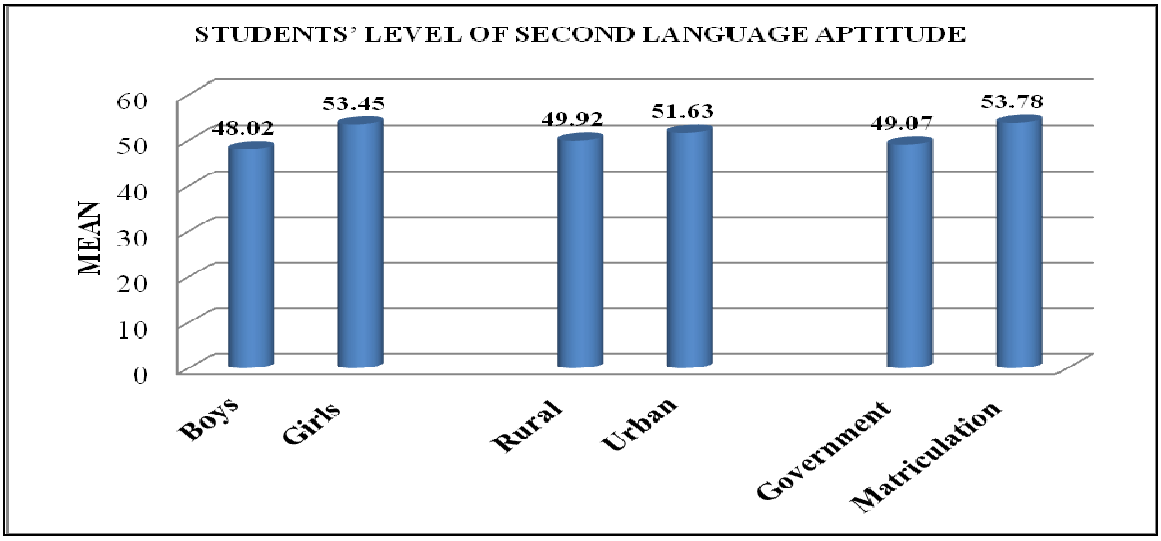
ANALYSIS AND INTERPRETATION OF DATA

Table - 1

Students' Level of Second Language Aptitude

Variable	Nature	N	MEAN	S D	't'
Students (Over All)		**513**	50.87	**17.80**	
Gender	Boys	269	48.02	17.19	3.03 $_{S}$
	Girls	244	53.45	16.06	
Locality of School	Rural	346	49.92	19.01	1.86 $_{NS}$
	Urban	167	51.63	18.07	
Nature of School	Government	294	49.07	18.87	2.43 $_{S}$
	Matriculation	219	53.78	17.62	

***S** = Significance at 0.05 level, NS = Not Significance at 0.05 level*



It is revealed from the table 1, that the students' level of second language aptitude is average (50.87). The level of second language aptitude of girls' (53.45) is better than boys (48.02). The calculated 't' value (3.03) is greater than table value (1.96) at 0.05 significant level which showed that there is a significant difference exists between boys and girls in their second language aptitude.

The level of second language aptitude of urban school students (51.63) is higher than rural school students (49.92). Though there is difference in the mean scores between rural and urban school students the calculated 't' value (1.86) is lesser than table value (1.96) at 0.05 significant level which showed that there is no significant difference exists between rural and urban school students in their second language aptitude.

The level of second language aptitude of government school students is 49.07 and matriculation school students 53.78. The calculated 't' value (2.43) is higher than table value (1.96) at 0.05 level of significance which showed that there is significant difference exists between government and matriculation school students in their second language aptitude.

RESULTS AND DISCUSSION

It is exposed from the table that the students' second language aptitude is average which revealed that the hypothesis 1 is not verified. There is a significant difference exists between the group of students with respect to their gender and nature of school

which showed that the hypothesis 2 and 4 are verified. Based on the locality of school the rural and urban school students are differ in their second language aptitude. Though there is difference in the mean scores between rural and urban school students the calculated 't' value (1.86) is lesser than table value (1.96) which showed that there is no significant difference exists between rural and urban school students in their second language aptitude. Thus the hypothesis 3, there is no significant difference between the rural and urban school students in their second language aptitude is not verified.

From this study it is inferred that students' level of second language aptitude is average which can be improved by providing special training in language practices. Teachers and parents should concentrate more efforts on factors that could improve students' second language aptitude. Though the students' cognitive ability, interest, attitude and intelligence lead to develop their language aptitude teachers should motivate, stimulate the interest of students to improve their second language aptitude. Students' language aptitude should be measured periodically by teachers in all the schools with standardised language aptitude test which helps to classify the students and diagnose the disabilities in second language learning.

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EXPLORING THE CHALLENGES AND POSSIBLE STRATEGIES FOR EFFECTIVE STAFF RECRUITMENT, SELECTION AND RETENTION IN PRIVATE SCHOOLS IN TAMILNADU

**** Nithya Meenakshi Sundaram***

Abstract

The success of any educational program depends mainly on the quality and competence of its teachers. The quality of a school depends more upon the quality of its teachers than upon any other factor. Recruiting and selecting teachers may be the most important task school administrators perform. It does not end up just by recruiting and selecting teachers, in addition to these retaining qualified teachers also considered as an equally important and challenging job for the school administrators. Hence recruitment, selection and retention are linked with one another. The aim of this paper is to explore the challenges faced by the school leaders in recruiting, selecting and retaining highly qualified teachers in private schools in Tamil Nadu by interviewing the leaders of three different private schools. The main aspect of this paper looks at the Indian perspectives in staff recruitment, selection and retention. By analysing the qualitative data on effective staff recruitment, selection and retention this paper concludes by proposing possible strategies for effective recruitment, selection and retention of qualified teachers in private schools in Tamil Nadu.

Key Words : *Staff Recruitment, Staff Selection and Staff Retention in Private Schools.*

INTRODUCTION

In Tamil Nadu schools are run by both government and private organisations. The schools run by the state government are called as the government schools or state schools. In the government schools the staff recruitment, selection and retention are taken

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care by the education department of the state government. The private schools are managed by individual persons so called the owner of school or by organisations and they should take care of the management of the school. There are totally 55667 schools in Tamil Nadu in which 63% of the schools are run by the government and remaining 37% are run by the private. In Tamil Nadu, it appears people consider the government jobs as more prestigious and secured when compared to other private jobs. The same will be applicable for the teaching job. The people who choose the teaching profession usually prefer to work in government schools rather than working in the private schools due to lot of reasons and benefits in the government jobs (Subramaniam, 2002). Some researches shows that the benefits for the teachers in Tamil Nadu government schools are job security, limited working hours, absence of the promotion and pension after retirement. The teachers work in the private schools to gain experience and once they get job in government schools they will move on (Muralidharan, 2013). The teachers believe that they need to put more efforts in the private schools than in the government schools because in the private schools the management put pressures on the teachers to show good achievements due to huge competition in the private school industry. They also believe that the state curriculum followed by the government schools are comparatively easier than the different curriculums followed by the private schools such as Central Board of Secondary Education (CBSE) and Indian Certificate of Secondary Education (ICSE) (Desai S, 2009). In this scenario most of the private schools in Tamil Nadu are struggling to employ qualified teachers in their schools. Even though the private schools in Tamil Nadu have better infra-structure and other facilities when compared to the government schools, they are struggling to achieve success because of the lack of qualified teachers. Many private schools recruit people even though they are not qualified for high standard teaching and they train them by offering professional development courses and make them ready for the teaching profession. In this case once the teachers are trained and they gain experience for one or two years then they start looking for new and better job opportunities. So, retaining qualified teachers is also an area to be considered in the private schools. Considering all these aspects in mind the objectives of the research are framed as follows,

- To identify and examine the current strategies followed by Tamil Nadu private school leaders in recruiting, selecting and retaining qualified teachers and to.
- To identify the challenges faced by Tamil Nadu private school leaders in recruiting, selecting and retaining qualified teachers.
- To explore and propose new possible strategies for effective teacher recruitment, selection and retention of teachers for private schools in Tamil Nadu.

Teacher quality is one of the most important factors related to increasing student achievement. Teachers who are academically qualified, committed, and have a passion towards teaching have an impact on students' success. The core of a recruitment program is "not to hire just to fill a position, but rather to acquire the number and type of people necessary for the present and future success of the school" (Rebore, 2001). Rather than any other factor the quality of a school depends on the quality of teachers. I believe in Bridges words, "Incompetent teachers inhibit student learning, consume administrators' time, and tarnish the reputations of colleagues" (Bridges and Edwin, 1986).Without effective recruitment and selection procedures the hiring of inadequate teachers will continue. Wrong personnel selection may waste time and money of the management. So, the management of an institution must concentrate on effective recruitment and selection of staffs. Equally the management should concentrate on retaining the quality teachers or else the efforts put on recruiting and selecting quality teachers will not be fulfilled. The literature review section in this paper has three sub sections teacher recruitment, teacher selection and teacher retention and they focus on international literature and Tamil Nadu perspectives of challenges and strategies on effective teacher recruitment, selection and retention.

METHODOLOGY

Before doing the research every researcher should think about the epistemology, ontology and the methodology. For any research to be successful choosing the right methodology plays an important role. Based on the objectives of this study the research methodology chosen is a qualitative research in which a multi case study research strategy is chosen rather than a single case study because this strategy will be helpful in exploring the challenges faced by the different school leaders and by comparing, the main

problems can be explored. This was also done to counter common criticism that case studies lack validity.

The research instrument used in this study is the interview method. The interview method is useful in understanding the lived experience of other people and the meaning they make of that experience (Coleman, 1999).The interview method is used where there is a need for an in depth knowledge about a particular topic or a problem (Cohen, 2000). The interview chosen in this research is a semi structured interview. The semi structured interviews are the most common type of interview for researches working within an interpretive paradigm. (Coleman, 1999). The semi structured interview involves a list of questions and topics to be covered and some follow up questions and probes are used. The mode of interview used in this research is face- to – face interview. This is one of the most preferable mode of interviewing for an individual interviewer to interview an individual research topic and it is better in depth data gathering, feasibility and reliability. A face - to -face interview helps the interviewer in observing visual clues and also it helps the interviewer in observing the interviewee's body language which might indicate comfort or discomfort which is useful for the interviewer to proceed the interview.

The sampling method used in this research is the convenience sampling. This method has obvious advantages in terms of feasibility, accessibility and convenience. The researcher has selected three private schools collected data from heads of three different private schools in Tamil Nadu state. The first school is selected from the Nilgiri district which is a hill station. The school is a 60 year old school with a very good name and reputation in the society with a student population of 800. The second school is selected from Pollachi in Coimbatore district and the school is seven year old with a student population of 900. Third school is selected from Chennai and the school is 33 years old with a student population of 1150. All the three schools are day cum residential schools. The sample size is decided due to cost and time constraints. The data are collected by interviewing the school heads. The interviews are recorded by the voice recorder and then the data are transcribed manually. The interviews are recorded to retain all nuances of the answers and to retain the richness of individual statements. During the interview some important points are also noted manually which forms the basis of the transcription which can then be augmented from the recording. The collected data are analysed by using

coding and thematic analysis techniques. Coding is defined as the process of combing the data for themes, ideas and categories and then marking the similar contents with a code label so that they can be retrieved at a later stage for further comparison and analysis (Coleman, 1999). Coding is useful in making comparisons and to identify the main themes for further discussion. In order to avoid researcher's bias Triangulation is identified that ensure validity, reliability and robustness of data collection, research analysis and interpretation. Here in this research the transcripts are sent to the interviewee for confirmation or amendment to avoid bias.

ANALYSIS

The head teachers of the private schools in Tamil Nadu face the following challenges in quality teacher recruitment, selection and retention.

A: RECRUITMENT:

- The private schools in Tamil Nadu find difficulties in attracting quality teachers because people consider government jobs are more prestigious than working in the private schools.
- Due to the growth of IT industry in Tamil Nadu the schools find difficulties in attracting the women teachers when compared to the early years.
- The schools in the rural areas find it difficult to attract quality teachers than the schools in urban areas.
- The schools having good reputation and living environment attract large pool of candidates.
- The newly start up schools find it difficult to attract quality candidates than the old reputed schools.
- Schools in the cities find it difficult to attract candidates due to heavy competition among the private schools.

B. SELECTION:

- The private schools in Tamil Nadu find it difficult to select right persons according to the context of the school.

- The members of the selection committee lack training in effective selection of the candidates.
- The head teachers have difficulties in assessing the candidates' generic skills apart from the academic skills.
- The head of the school have difficulties in conducting the selection process and formulating effective strategies for selecting the quality teachers.

C. RETENTION:

- The private schools find it difficult to retain new teachers than the old ones.
- They find it difficult to satisfy teachers because of their comparison between schools due to the availability of job opportunities.
- They face challenges in preventing the experienced teachers from moving to the government schools and retaining them.

DISCUSSION

In this section the effective strategies for teacher recruitment, selection and retention are proposed after the exploration of the literature and the analysis of the data. They are as follows.

STRATEGIES FOR EFFECTIVE RECRUITMENT:

(A) Plan Your Budget:

Planning of budget for the recruitment process is one of the important thing to be done by the school management. Only after allocating the budget they can start planning regarding the recruitment process.

(B) Early Recruitment:

The schools should plan their timeline regarding the recruitment and selection process. It is always better to start the recruitment process earlier so that the candidates will not be hired by other schools. Starting the recruitment process earlier will also give ample time for the selection process.

(C) Careful Selection of Recruiters:

As per the saying 'The first impression is the best', a candidate's first impression about the school depends on his or her perception of the recruiter. The recruiter should be

a person who is capable of projecting the school's vision, their expectations and their attitude and fairness towards teachers. He should be capable to represent the school.

(D) Choosing Different Channels for Publicity:

To be successful in recruiting, recruiters should use variety of channels to publicize the attractiveness of their school. They can use different channels like issuing brochures, giving advertisements in newspapers, internet, social medias, by keeping displays in conventions, participating in job fairs and so on. By using different channels schools can increase the probability of attracting large pool of candidates.

(E) Publicize Your Intention to Get Qualified Teachers:

It is important to publicize what the school is looking for like academic qualifications apart from academics what the school is expecting from its teacher. This makes the right candidate to apply for the job. Attracting small number of right people is always better than attracting large number of unsuitable candidates and wasting time and money on that.

(F) Highlight Job Benefits:

To attract the candidates the recruiters should highlight the benefits of working in their school like salary packages, incentives, opportunities for professional and career development, working environment and induction programs. They should also highlight how their school values its educators.

(G) Maintain the Database of Candidates:

The schools should maintain a database of all the candidates who have applied for the job in a long term basis even after the selection process is over. It is important because whenever the school has a shortage of teachers even in between the academic year, they can use the database of candidates and can select from them. It is impossible to search for people when there is a urgent need.

(H) Share Your Values and Culture:

Sharing the values and culture of the school is very important to attract the potential candidates. The school can put a video or a slideshow that shares the values and culture of the institution in its websites and job fairs. The school can also update its milestones. This helps the candidates to know more about the place they are going to work and they themselves can decide whether they will fit in this organisation or not. The

candidates who perceive they are good fit for the particular school will be attracted toward the school. This strategy helps in attracting the right people for the right place.

(I) Create Partnerships with Universities and Teacher Training Institutes:

The schools can create tie – ups and maintain good relationship with universities and institutes offering education programs and teacher preparation programs. Through this the schools can attract new teachers who are looking for their first jobs. The schools can make their faculties participate in workshops and lectures on their campuses.

(J) Compete With the Government Schools:

The private schools in Tamil Nadu can offer better salary, incentives and other fringe benefits when compared to the government schools to attract the candidates towards them. They can advertise and high light the offers they give for their teachers. The private schools should focus on identifying the benefits and problems of the government school teachers and they can publicize the advantages of working in private schools accordingly.

✓ STRATEGIES FOR EFFECTIVE SELECTION:

(A) Connecting Teacher Quality to Teacher Selection:

First the schools should be clear about the factors that defines the teacher effective. It cannot be said that if a teacher has a specific character then he or she can be an effective teacher. Instead a combination of cognitive, academic and personal characteristics predicts success as a teacher. They should plan regarding how are they going to analyse all the skills of a teacher candidate? What are the stages in the teacher selection process and who are the persons responsible for the selection process?

(B) Involve More People in the Selection Committee:

Always it is better to involve more people in the selection process than a single person. Involvement of more people in the selection team increase the reliability of the selection process by combining the decisions of several individuals. For example a head teacher alone cannot select the effective teacher candidate it is necessary to involve more people like head teacher, deputy head, members from the administration board, a person who have knowledge about the particular subject and a person specialised in human resource management.

(C) Design the Stages of Selection Process and the Teacher Quality Index Protocol:

It is important to design the stages of selection process like screening of applications, interview process, observing demo classes, conducting some generic tests and conducting second stage interview if necessary. For effective selection process the selection committee should decide upon what are the factors they are going to analyse form the teacher candidates like verbal ability, content knowledge, personal characteristics like caring, interaction with students, enthusiasm motivation, class room management, planning for instruction, instructional delivery and assessment and they should frame the teacher quality index protocol by giving necessary weightage to the factors they consider important for the teachers of their school. Then they can design the questions that are explicitly linked to the quality indicators and a rubric can be used to clarify the evidence of each indicator. By this the selection committee can select the effective teacher candidates according to the need of the school.

(D) Train the Persons of Selection Committee:

The persons of the selection committee can be given training in how to select the efficient teachers through systematic processes. They can be given training in job analysis, legal guidelines, ethics in the selection process, multiple assessment techniques and so on. Lack of training may results in wrong personnel selection influenced by factors such as attitude congruence, first impressions and personal bias.

(E) Fair and Honest Selection Process:

During the selection process all the candidates should be treated equally. The candidates could be made aware of the fairness in the selection process. The schools might inherit poor reputations when candidates are subjected to the selection processes whose conclusions are predetermined and their applications are treated with disinterest and disrespect.

(F) Always Validate the Selection Process:

The schools should not stop with the selection process. They should study on how the new teachers are performing in the classroom. They should evaluate their areas of strengths and weakness and they should find out how did the hiring process predict those strengths and weaknesses of a particular teacher? By this they can make necessary improvements in their future selection processes.

✓ STRATEGIES FOR EFFECTIVE RETENTION:

(A) Consider the Importance of Induction Process:

The schools can give importance to the induction process to encourage new teachers and to enhance their productivity in the classroom. The induction process could provide information on the rules and regulations of the school, its culture, values and information regarding the duties of the particular person. This helps the new teacher to fit in the new working environment.

(B) Decrease Dissatisfaction of Teachers and Increase Satisfaction:

The schools should focus on decreasing the dissatisfaction factors by providing reasonable salary, job security, increasing the status of the teacher, creating a good working environment and by providing other fringe benefits. They can increase job satisfaction among teachers by giving them opportunities to do something interesting and challenging, recognising one's achievement, creating responsibility, involving teachers in decision making process and creating sense of importance to the organisation. By implementing this strategy private schools in Tamil Nadu can decrease teacher migration from private schools to government schools.

(C) Quality Teachers Need Quality Leaders:

Talented teachers may leave school if they do not have effective leaders. The school leaders should be capable to manage teachers, motivate them, keep them satisfied, solve their problems and maintain a good relationship with them.

(D) Provide Opportunities for Teacher Professional and Personal Development:

The private schools in Tamil Nadu could provide opportunities for teacher professional and personal development by encouraging teachers to attend educational conferences, seminars, by providing them professional and personal development courses, opportunities to update themselves and by funding teachers to do some additional courses for their professional development. By implementing this strategy private schools can retain effective teachers because quality teachers always seek such kind of growth opportunities.

(E) Using Exit Surveys:

The school leaders are often unaware why their teachers quit and how to prevent it in the future. They can use exit surveys to improve the working environment and

reduce turnover. The teachers who are leaving the school can be asked to fill up the exit surveys which asks the teachers, reason for leaving their school, their suggestions for school improvement and so on. The exit surveys may contain questions regarding the school's reward and pay structure, leadership, training and development support, job security and working environment and also they can have some open ended questions for teachers so that they can express their thoughts.

CONCLUSION

As recruitment, selection and retention are interlinked, schools should focus on all the three to be successful. In private schools in Tamil Nadu some of the important issues are identified in the areas of teacher recruitment, selection and retention. In spite of the variety of job opportunities available for the people in Tamil Nadu, making the teaching profession attractive is an important issue to be considered. Another major issue is attracting the candidates who are interested in teaching towards the private schools as there is a belief that government jobs are more prestigious and secured. To attract the candidates private schools should analyse what are the benefits and advantages of teachers working in government schools and they should offer better salary packages and schemes to attract them. The private schools should concentrate on publicizing their intention and their offers for the teachers to attract them.

Selecting effective candidates from the pool of applicants is also a challenge faced by the school leaders because of lack of training and knowledge in how to analyse the generic skills apart from the academic qualifications. Careful selection of members for the selection committee and by giving training in how to select the effective candidates is considered important. Schools can be successful in their selection process only when they start thinking that which applicants will be helpful in hammering the best possible school in five to seven years and not by thinking who will fit into their present school.

Retaining effective teachers plays an important role in every organisation because the efforts put on recruitment and selection will go waste unless the effective teachers are retained. The private schools should concentrate in analysing the teachers' dissatisfying factors and should take efforts to eliminate them and at the same time they should take efforts to increase the motivating factors which help in retaining the effective teachers.

By implementing exit surveys the schools can analyse the reason behind teachers quitting their job and the school management can take necessary steps to improve them.

Even though the possible strategies for effective recruitment, selection and retention of teachers in private schools are proposed in this paper, the research has its own limitation because of its smaller sample size due to the limited availability of time factor. As the private schools differ from each other, the challenges faced by the schools in recruiting, selecting and retaining teachers may also vary according to the school. Further research can be done on analysing the factors of job satisfaction and dissatisfaction among the teachers of private schools in Tamil Nadu which will be more helpful for the private schools in formulating their retention strategies.

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COOPERATIVE LEARNING AS A CONSTRUCTIVIST TEACHING LEARNING STRATEGY

**** T.Revathi***

Abstract

The constructivist movement has grown throughout the world in academic parlance essentially from the dissatisfaction with traditional educational methods. Our formal education assumes true reality can be determined by "a large accumulation of facts" and has relied on the objectivist view of knowledge in which learning presumes that knowledge can be imparted from teacher to learner through instruction and lecture. In our traditional education system, teachers play a central role as a transmitter of objective truths and information to the students and mere controller of students in classroom where the students play as passive listeners in the process of learning. In order to eradicate such problems in our formal education system various revolutionary teaching learning methods and approaches are initiated and implemented in our present education system. This paper presents the function of Cooperative Learning as pioneering constructivist pedagogy in educational practice which could encourage students' creativity, interest, problem solving, critical thinking and meaningful learning and promotes responsibility.

***Key Words**: Constructivism, Cooperative Learning, Teaching Learning Strategy.*

INTRODUCTION

The constructivist movement has grown throughout the world in academic parlance essentially from the dissatisfaction with traditional educational methods. Our formal education assumes true reality can be determined by "a large accumulation of facts" (Kelly, 1970) and has relied on the objectivist view of knowledge in which learning presumes that knowledge can be imparted from teacher to learner through instruction, lecture and practice. In our traditional education system teachers play a

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central role as a transmitter of objective truths and information to the students and mere controller of students in classroom where the students play as passive listeners in the process of learning. There was insufficient interaction between students and teachers in classrooms where more emphasis has been given on theory without any practical and real life time situations. Observing this Gulati (2004) has rightly stated that learning in objectivist context places emphasis on teacher control and learner compliance. In order to eradicate such problems in our formal education system various revolutionary teaching learning methods and approaches are initiated and implemented in our present education system. Among the various methods in educational practice Cooperative learning is the pioneering constructivist pedagogy which encourages students' creativity, interest, problem solving, critical thinking and meaningful learning and promotes responsibility.

CONSTRUCTIVISM

Constructivism is the theory of how the learner constructs knowledge from experience, which is unique to each individual. It is a view of learning based on the belief that knowledge is not a thing that can be simply given by the teacher at the front of the room to students in their desks. Rather, knowledge is constructed by learners through an active, mental process of development; learners are the builders and creators of meaning and knowledge. Constructivism draws on the developmental work of Piaget (1977) who is considered as the father of constructivism and provided the foundation for modern day constructivism, and Kelly (1991). "Constructivism" refers to the process by which human beings actively make sense out of the world around them to understand (Wiske, 1998). Fosnot (1989) defines constructivism by reference to four principles: learning, in an important way, depends on what we already know; new ideas occur as we adapt and change our old ideas; learning involves inventing ideas rather than mechanically accumulating facts; meaningful learning occurs through rethinking old ideas and coming to new conclusions about new ideas which conflict with our old ideas.

CONSTRUCTIVIST CLASSROOM

Constructivism is a more overarching theory, one that can incorporate a number of teaching practices, such as cooperative, collaborative and inquiry based learning. In the classroom, the constructivist view of learning can be point towards a number of

different teaching practices. In the most general sense, it usually means encouraging students to use active techniques (experiments, real world problem solving) to create more knowledge and then to reflect on how their understanding is changing. In constructivist classroom, the focus tends to shift from the teachers to the students. The classroom is no longer a place where the teacher (expert) pours knowledge into passive students but students are urged to be actively involved in their own process of learning. The teacher provides students with experiences that allow them to hypothesize, predict, manipulate objects, pose questions, research, investigate, imagine, invent and also the teacher functions more as a facilitator who coaches, mediates, prompts and helps students develop and assess their understanding of learning.

CONSTRUCTIVISM IN TEACHING AND LEARNING

In the present era there is a vast change in the educational curricula and teaching methods. Constructivist approach has recently been applied to teaching and learning in the classroom with the belief that better learning occurs when knowledge is the result of situated construction of knowledge (Wilson, 2014). One component of the current redevelopment of all subject area curricula is the change in focus of instruction from the transmission curriculum to a transactional curriculum. In a traditional curriculum, a teacher transmits information to students who passively listen and acquire facts. In a transactional curriculum, students are actively involved in their learning to reach new understandings. Von Glasersfeld (2018) argues that from the constructivist perspective, learning is not a stimulus response phenomenon. It requires self- regulation and the building of conceptual structures through reflection and abstraction. In this paradigm, learning emphasizes the process and of constructing meaningful representations of making sense of one's experiential world. Based on the constructivism approach the following principles of learning are derived.

- Learning as an active process in which the learner uses sensory input and constructs meaning of it.
- Individuals learn to learn as they learn and the key component of learning is motivation.

- Physical actions and hands on experiences are necessary for learning especially for children.
- Learning involves language which influences learning and also language and learning are inextricably intertwined.
- Learning is social activity and learning is associated with one's connection with teachers, peers, parents as well as casual acquaintances.
- It is not possible to absorb new knowledge without having some structure developed from previous knowledge to build on.
- Learning is not instantaneous. It takes time to learn.

Constructivist teaching fosters critical thinking and creates active and motivated learners. Many educationists stated that learning in all subject areas involves inventing and constructing new ideas. They suggest that constructivist theory be incorporated into the curriculum, and advocate that teachers create environments in which children can construct their own understandings. Fosnot (1989) recommended that a constructivist approach be used to create learners who are autonomous, inquisitive thinkers who question, investigate, and reason. A constructivist approach frees teachers to make decisions that will enhance and enrich students' development" in these areas. Based on constructivist approach teachers in a constructivist classroom must be in a position to:

- Influence or create motivating conditions for students.
- Take responsibility for creating problem situations.
- Foster acquisition and retrieval of prior knowledge.
- Create a social environment that emphasizes that attitude of learning to learn.
- Provide complex learning environments that incorporate authentic activity.
- Provide for social negotiation as an integral part of learning.
- Emphasize student centered instruction.

COOPERATIVE LEARNING

Cooperative Learning is an approach to organizing classroom activities into academic and social learning experiences. It differs from group work, and it has been described as "structuring positive interdependence." Students must work in groups to complete tasks collectively toward academic goals. Unlike individual learning, which can

be competitive in nature, students learning cooperatively capitalize on one another's resources and skills (asking one another for information, evaluating one another's ideas, monitoring one another's work, etc.). Furthermore, the teacher's role changes from giving information to facilitating students' learning. Everyone succeeds when the group succeeds. **Ross and Smyth (1995)** describe successful cooperative learning tasks as intellectually demanding, creative, open-ended, and involve higher order thinking tasks.

COOPERATIVE LEARNING AS A CONSTRUCTIVIST TEACHING LEARNING STRATEGY

Cooperative learning is an increasingly popular instructional strategy. In recent decades, theorists have extended the traditional focus on individual learning to address cooperative, collaborative and social dimensions of learning which focused on students learning than on teachers teaching. The goal of constructivist cooperative learning environment is to engage learners in active (manipulative), constructive, intentional, cooperative (collaborative and conversational) and reflective learning activities Chen (1996). Hilke (1990) defines "Cooperative learning is an organizational structure in which a group of students pursue academic goals through collaborative efforts. Students work together in small groups, draw on each other's strengths, and assist each other in completing a task." Johnson and Johnson (1991) stated that "Cooperative learning is the instructional use of small groups so that students work together to maximize their own and each other's learning."

Cooperative learning refers to a variety of methods for organizing classroom instruction so that students work and learn in small groups. Cooperative learning is instruction that involves students working in teams to accomplish a common goal, under conditions that include the following elements.

- **Positive interdependence**. Team members are obliged to rely on one another to achieve the goal. If any team members fail to do their part, everyone suffers consequences.
- **Individual accountability**. All students in a group are held accountable for doing their share of the work and for mastery of all of the material to be learned.

- **Face-to-face promotive interaction**. Although some of the group work may be done individually, some must be done interactively, with group members providing one another with feedback, challenging reasoning and conclusions, and perhaps most importantly, teaching and encouraging one another.
- **Appropriate use of collaborative skills**. Students are encouraged and helped to develop and practice trust-building, leadership, decision-making, communication, and conflict management skills.
- **Group processing**. Team members set group goals, periodically assess what they are doing well as a team, and identify changes they will make to function more effectively in the future.

Cooperative learning is an approach to learning and teaching which offers the opportunity for regular and rigorously designed group work, where students are very clear about the learning intentions and success criteria and are encouraged to work collaboratively while still encouraging individual accountability. In this learning strategy students are actively involved in making meaning, processing and relating information to their own experience through dialogue and collaboration.

COOPERATIVE LEARNING TECHNIQUES

There are a great number of cooperative learning techniques available. Some cooperative learning techniques utilize student pairing, while others utilize small groups of four or five students. A well known cooperative learning techniques are Think Pair Share, Jigsaw, Jigsaw II , Reverse Jigsaw and Reciprocal Teaching technique. (Schul, 2011)

i. **Think Pair Share** - Think-Pair-Share technique is developed by Frank T. Lyman (1981) which allows for students to contemplate a posed question or problem silently. The student may write down thoughts or simply just brainstorm in his or her head. When prompted, the student pairs up with a peer and discuss his or her idea(s) and then listen to the ideas of his or her partner. Following pair dialogue, the teacher solicits responses from the whole group.

ii. **Jigsaw -** In this technique students are considered as members of two groups: home group and expert group. In the heterogeneous home group, students are each assigned a different topic. Once a topic has been identified, students leave

the home group and group with the other students with their assigned topic. In the new group, students learn the material together before returning to their home group. Once back in their home group, each student is accountable for teaching his or her assigned topic.

iii. **Jigsaw II -** Jigsaw II is Robert Slavin's (1980) variation of Jigsaw in which members of the home group are assigned the same material, but focus on separate portions of the material. Each member must become an "expert" on his or her assigned portion and teach the other members of the home group.

iv. **Reverse Jigsaw -** This variation was created by Timothy Hedeen (2003) which differs from the original Jigsaw during the teaching portion of the activity. In the Reverse Jigsaw technique, students in the expert groups teach the whole class rather than return to their home groups to teach the content.

v. **Reciprocal Teaching -** It is a cooperative technique developed by Brown and Paliscar (1982) that allows for student pairs to participate in a dialogue about text. Partners take turns reading and asking questions of each other, receiving immediate feedback. Such a model allows for students to use important met cognitive techniques such as clarifying, questioning, predicting, and summarizing. It embraces the idea that students can effectively learn from each other.

BENEFITS OF COOPERATIVE LEARNING

Cooperative learning is not simply a synonym for students working in groups. A learning exercise only qualifies as cooperative learning to the extent that the five listed elements are present. From looking at these five essential attributes of cooperative learning, it is evident that they illustrate the outworking of numerous values among the students. Interdependence focuses on a concern for others; Accountability is a demonstration of our responsibility for each other's welfare; Collaboration gives the ability to work closely with others, seeing their point of view; Listening, encouraging and trusting are essential elements if affirmation and support, which help, comprise faith and Face to face interaction promotes the type of closeness required for formation of caring community.

Cooperative learning provides an approach to teaching which is conductive to the development of the skills and social interaction which increases pupil attainment. There are three major benefits to cooperative learning: higher achievement and greater

productivity, more positive relationship and greater psychological health, social competence and self esteem. It can have many different kinds of positive impacts on student learning and which help students develop conflict resolution skills and commitment to democratic values. Other benefits include better attitudes toward school, learning, and classmates; improved ability to collaborate; better psychological health, including increased self esteem, increased awareness of multicultural and diversity issues.

Main benefits identified by the extensive studies (Johnson, Johnson, & Holubec, 1988).

- Higher achievement and increased retention.
- Greater use of higher level reasoning strategies and increased critical reasoning competencies.
- Greater ability to view situations from others' perspectives.
- More positive attitudes toward subject areas, learning, and school.
- Higher achievement and greater intrinsic motivation.
- More positive attitudes toward teachers, principals and other school Personnel.
- High self-esteem based on basic self-acceptance.
- Less disruptive and more on-task behavior.
- Greater collaborative skills and attitudes necessary for working effectively with others.
- More positive psychological adjustment and health.

As a result Cooperative Learning as a constructivist strategy appear to promise positive effects for students, as reflected in increased academic achievement and improved social attitudes and behavior. Although cooperative learning activities may require more teacher preparation of group material and monitoring of group activities, the rewards and benefits for both the teacher and students go a long way. They appear likely to positively influence a school’s academic and social climates as well as enhance students’ creativity, interest, problem solving, and critical thinking. It encourages active and meaningful learning and promotes responsibility; because of constructivist teaching is beneficial in achieving desirable educational goals for students and for teachers to grow professionally towards a constructivist practice.

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