CREATIVITY AMONG MONO-LINGUAL AND BI-LINGUAL ELEMENTARY SCHOOL CHILDREN OF TEA GARDEN AREA

A DISSERTATION SUBMITTED TO DEPARTMENT OF EDUCATION, JADAVPUR UNIVERSIET FOR THE PARTIAL FULFILLMENT OF MASTER OF PHILOSOPHY IN EDUCATION

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CERTIFICATE

This is to certify that the dissertation entitled **"Creativity among Mono-Lingual and Bi-Lingual Elementary School Children of Tea Garden Area"** is a record of bona fide research work by **Puspa Mohanta** under my supervision and guidance. It contains the result of the candidate's personal investigation. The candited has fulfilled all the necessary requirements according to the regulations of the Jadavpur University, Judavpur, Kolkata and fit for submission to the University for the partial fulfilment of Master of Philosophy in Education. I further certify that, no part of the dissertation has been submitted for any other degree.

He is duly permitted to submit his work to the university.

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DECLARATION

I, Puspa Mohanta do hereby declare that dissertation entitled "**Creativity among Mono-lingual and Bi-lingual Elementary school of Cildren Tea Garden Area**" submitted by me to the Department of Education, Judavpur University, Kolkata, West Bengal, for the partial fulfilment of degree of Master of Philosophy in Education is a record of original research work carried out by me under the supervision and guidance of Dr. L. L. Mohakud, Assistant Professor, Department of Education, Jadavpur University, Kolkata and that it has not been submitted for the award of any degree, diploma or any other recognition to any other candidate to any University or Institution before.

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To all HoDs
12/4/19

Certified that the thesis entitled, CREATIVITY AMONG MONOLINGUAL AND BILINGUAL ELEMENTARY SCHOOL CHIDREN OF TEA GARDEN AREA, submitted by me towards the partial fulfilment of the degree of Master of Philosophy (Arts) in .....of Jadavpur University, is based upon my own original work and there is no plagiarism. This is also to certify that the work has not been submitted by me for the award of any other degree/diploma of the same Institution where the work is carried out, or to any other Institution. A paper out of this dissertation has also been presented by me at a seminar/conference at ISPWEAPD-2018 Jadavpur University, thereby fulfilling the criteria for submission, as per the M.Phil Regulation (2017) of Jadavpur University.

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On the basis of academic merit and satisfying all the criteria as declared above, the dissertation work of Puspa Mohanta .....entitled Creativity Among monolingual ...., is now ready for submission towards the partial fulfilment of the Degree of Master of Philosophy (Arts) in EDUCATION of Jadavpur University.

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Jayanti Das 30.4.19
Member of RAC

Dedicated

To

My beloved father

Lt. suren mohanta and my guide Dr. lalit lalitav mohakud

DECLARATION

I, Puspa Mohanta do hereby declare that dissertation entitled "**Creativity among Mono-lingual and Bi-lingual Elementary school of Cildren Tea Garden Area**" submitted by me to the Department of Education, Judavpur University, Kolkata, West Bengal, for the partial fulfilment of degree of Master of Philosophy in Education is a record of original research work carried out by me under the supervision and guidance of Dr. L. L. Mohakud, Assistant Professor, Department of Education, Jadavpur University, Kolkata and that it has not been submitted for the award of any degree, diploma or any other recognition to any other candidate to any University or Institution before.

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Abbreviations

α:	Alpha
ACRIP- CD:	All India Coordinated Rice Improvement Programme
	Creativity Development
ANOVA:	Analysis of Variance
C:	Creativity as a whole
df:	Degree of Freedom
E:	Dimension of Elaboration
EFL:	English as a Foreign Learning
F:	Critical Ratio of ANOVA
SGS:	Student of Grant Competition
HM:	Head Master
I:	Grade I
II:	Grade II
III:	Grade III
III:	Grade IV
IX:	Grade IX
M:	Mean
MD:	Mean Difference
N:	Total Number of Students
O:	Dimension of Originality
OBC:	Other Backward Classes
NCERT:	National Council of Educational Research and training
NVTCT:	Non-verbal Test of Creative Thinking
NS:	Not Significant
P:	Probability or Critical Ration of t/F
R:	Rural
S:	Significant

SE_M:	Standard Error of Mean
SC:	scheduled caste
SD:	Standard Deviation
Sig:	Significances level
SPSS:	Statistical Package for the Social Science
Std:	standard Deviation
ST:	Scheduled Tribe
t:	Calculated value of- t
TTCT:	Torrance Test of Creative Thinking
U:	Urban
USA:	United State
V:	Grade V
VI:	Grade VI
VII:	Grade VII
VIII:	Grade VIII
VC:	Verbal Creativity
X:	Grade X

Abstract

In order to measure creativity among the tea garden elementary level school children regarding their different demographic variables, the present study was carried out, where a cross-sectional survey design has been used. 200 monolingual and bilingual samples were selected from the elementary school students of the tea garden area of Jalpaiguri district in West Bengal for the study using random sampling technique. The data collected through using 'Non Verbal Test of Creative Thinking' tool developed by Mehedi (1937) was analysed with the help of SPSS-21. According to the manual of the tool, three dimension of creativity i.e. 1) dimension of elaboration, 2) dimension of originality and 3) creativity as a whole have been measured. The findings of the study showed there were significant differences among the monolingual students from the variable perspectives of gender, age, and parents' educational qualification. In case of the bilingual students, from the aspects of age and grade variable, there were significant differences among the elementary level students. And in case of the total samples, the variables like- age and gender influenced the creativity of the students a lot and it has been found that there were significant differences among the students from these perspectives.

CHAPTER I

CONTEXT OF THE STUDY

1.1.0 Introduction

Erikson said that "childhood is the scene of man's beginning as man, the place where our particular virtues and vices slowly but clearly develop and make themselves felt." This period ranges from four to twelve years of age. From the physical point of view, the childhood is a period of consolidation. Therefore, the growth during childhood is not as rapid as during infancy. Now the child engages himself in different types of play activities which strengthen his limbs and he acquires better adjustment power of the same. During childhood the power of imitation is also very active (Panda, p77). The five to twelve year aged children need to attend to school where they are made to learn various skills and the teachers in the school environment generate pressures on them to work hard in order to perform well (Erickson). In the beginning at around fourth grade through sixth grade (ages 9-11), children are going through many profound physical, cognitive, emotional, and social changes. As their reasoning and critical analysis abilities become mature, they start developing an interest in social and cultural issues (Eugie Foster, 2019). Even before they enter primary school, they already have a variety of learning skills acquired through questioning, inquiring, searching, manipulating, experimenting, and playing. Children need opportunities for a closer look; they need time for the creative encounter. According to UNESCO, "the encouragement of creativity from an early age is one of the best guarantees of growth in a healthy environment of self-esteem and mutual respect- critical ingredients for building a culture of peace."

1.1.1 Elementary Education and Creativity of the Children

Primary education is the foundation for a child's learning on which every other level of learning depends (Ijeoma (2004), Adedeji (2004), Onyeagba (2006), Saidu (2008), and Sen (2010). Elementary school stage ranges from Grade-I to Grade-VIII comprising generally the children of the age group of 5/6 years to 13/14 years. Basically it covers the stage of

childhood and adolescence. Peer-group is a very vital role-player at this stage, where they find their self-esteem and approval for demonstrating specific competencies. It is the time when the child is expected to acquire the rudiments of knowledge that are considered essential for successful adjustment to adult life (Hurlock, 1981). According to Piaget, children at about 6 or 7 years, start to think abstractly. At 7 to 12 years (Concrete Operational Stage), they reach a satisfactory level in terms of intellectual development by his thinking becoming quite systematic and logical. At 12 to 15 years of age (Formal Operational stage), their intellectual development and functioning takes a very sophisticated shape as the child learns to deal with abstraction by logical thinking. At the elementary level, the students are there with active initiatives in their interested area. If they are encouraged and reinforced for their initiatives, gradually they begin to feel competent and confident and they will try their best to achieve their goals. On the other hand if they are restricted, then they begin to feel inferior doubting their own abilities. A nation's progress, greatness depends not only on its material achievements but also upon its great thinkers, artists and scholars that are regarded as creative genius. And in fact, historical records provide evidence that cultures have collapsed because of failure to utilise intelligence and imagination methods for solving their problem. Every child is born with creative potential, but this potential may be stifled if care is not taken to nurture and stimulate creativity. Young children are naturally curious. They wonder about people and the world. Therefore in this context, the teachers and parents must be very much conscious about the creative characteristics of the students so that it can be reinforced. They can also be inferior if they feel that they cannot develop the specific abilities what they feel the society is demanding. Here the elementary level education helps them in understanding what the society is demanding from them. Thus at this stage the creativity of the students grows to the peak point.

1.1.2 Concept of Creativity

The development of human being and civilization is there due to the creativity like concepts. It is a very subjective term which originates from the curiosity and interest of a human being. If there is no intensity to create something new, there will be a rigidity i.e. development and civilization will be no more there. Creativity deals with flexibility rather than rigidity, novelty rather than traditional. Creativity has been described as 'a state of

mind in which all our intelligences are working together' and as 'the ability to solve problems and fashion products and to raise new questions'. Piirto (2004) found that the root of the words "create" and "creativity" comes from the Latin creâtus and creâre, meaning "to make or produce". Amabile (1996), Sternberg and Lubart (1999) mentioned that creativity refers to the generation of ideas or products that are original, valuable, or useful. Agars, Kaufman, and Locke (2008, p. 6) agree that "Most early definitions of creativity implied that creativity was a singular entity. Creativity = Utility + Beauty + Novelty. Rhodes (1978) classified the definitions of creativity in four categories. Firstly, creativity is the aggregate of those qualities and characteristic that leads to some original and novel idea. Secondly creativity is the mental process essentially operative during originating a creative idea and constructing its complete from. Thirdly creativity is that ability of man which can produce a novel or original product. Fourthly the environment in which new ideas are encouraged and in such an environment a man is inspired to create something novel that is called creativity. After all creativity is that ability which in combination of some personality characteristic instigates specific mental processes leading to the production of some novel or original idea and expresses it in appropriate environment. Boden (2001) defines creativity as the ability to think of novel thoughts that happen to be beyond belief on one hand yet comprehensible on the other. In general four approaches have been used to understand the concept of creativity. These are called the four PS, that is, the product of creative thinking (product), the process of creative thinking (process), and the person who is creative (person), and the press or the environment in which the creation comes about (press). The product- we often thinks of creativity in terms of the actual product, may it be a painting, a poem, a theory, a story or a solution. The process- the starting point in creative process is felt need which initiates the effort. Torrance says "the process of creativity consists of sensing problems or gaps in information, forming ideas or hypotheses, testing and modifying these hypotheses and communicating the results."

Literally there are two types of thinking, convergent and divergent thinking. There is a fixed answer to the first one, while in case of the second one i.e. divergent thinking there is an associative freedom (i.e. lots of responses). The term 'divergent thinking' has been coined by Guilford. According to him, divergent thinking is creativity by default. According to Gulati (1995) followings are some of the important behaviour of the potentially creative children of elementary school behave.

Sensitivity and Awareness: As compared to others, the creative child is more open and sensitive to his environment. Many things that strike him are missed by other.

Fluency: Another indicator of the creative child is that he is usually fluent in ideas, whether the medium of his expression is verbal (as in the case of composing a poem or cutting a joke or writing a story) or non-verbal (as in the case of drawing or painting).

Flexibility: The next indicator of the creative child is that he is a flexible thinker. He can think of many unusual uses of a thing that most children may not think. Faced with a problem, he is able to think and make use of a variety of approaches to solve it. In the school, he may try different ways to persuade his teachers and peers to get the work of his choice done or his ideas accepted.

Originality: This is the most important indicator of creativity. It includes such abilities as the capacity to produce unusual ideas, solve unusual problems in unusual ways and use things or situations in an unusual manner.

Elaboration: Another indicator of creative potential is the ability to go in to details. Given an incomplete picture, for example the creative child is capable of completing it by adding more new ideas into it.

Curiosity: The creative child has unending curiosity. He wonders what makes things work. A creative child is always seeking information, pondering and is a keen observer.

Intellectual Playfulness: The creative child is in the habit of playing with ideas. Connecting the remote ones and thereby exploring and generating the new ones. He takes interest in quizzes, word building games and similar activities in the classroom (Gulati, 1995, p43, 44, 46).

1.1.3 Linguistic Context and Creativity

Researches have shown that language (Wang and Cheng, 2016) and experiences with multiple cultures (Leung and Chiu, 2010) can have a positive effect on creativity. Children may be surrounded by single language or multiple languages and cultures. Someone who speaks only one language is known as Monolingual. Many people who are not brought up to be bilingual or multilingual learn bits and pieces of languages throughout their lifetime. According to the Oxford Dictionary mono-lingualism is defined as: 1.Knowing or able to

use only one language; 2. Spoken or written in only one language. Bilingualism, very generally, is defined as the use of multiple languages in everyday life on a regular basis (Grosjean and Li, 2013) and is a highly heterogeneous phenomenon. Bilinguality is the psychological state of an individual who has access to more than one linguistic code as a means of social communication. Bilinguals are those who are able to speak two languages that represent two different cultures (Bialystok, 2001). Creativity can be conceptualized as a process of perceiving new relationships and new challenges through interactions between a creative individual and his or her environment, including culture or language use (Raina, 1999). Numerous studies have claimed that bilingualism has a specific, positive effect on divergent thinking (for an over view,see Ricciardelli,1992). Fischer, and Christoffels (2011) affirmed the positive impact of bilingualism on creativity, positing that it is the underlying processes and mechanisms of creativity that are influenced by bilingual practice not the unitary concept. As creativity is enhanced by cognitive functions, so it can be expected that developments in bilinguals' cognitive functions facilitate creative abilities. Bilingual students have different mental abilities and greater cognitive flexibility in contrast to monolingual students (Peal and Lambert, 1962). Various studies have shown that bilingualism is positively associated with creativity. Researches have demonstrated that several executive functions are better developed among bilinguals in comparison to monolinguals. The language environments of bilingual children differ from the language environments of monolingual children. For instance, bilingual children are exposed to two different vocabularies and to two partly different conceptual systems underlying these vocabularies. Related to this, bilingual children often experience the customs, values, knowledge, and wisdom of two or more cultures. In this regard, the environments of bilingual children can be considered richer than the environments of monolinguals, and, following the suggestion of Glaveanu (2013), it is conceivable that there is a positive relationship between bilingualism and creativity.

1.2.0 Rationale of the Study

After going through and reviewing various related studies which are given in details separately in the second chapter of this dissertation entitled as "Review of Related Literature" the researcher draws the following rationale to undertake the present study.

Hangeun Lee and Kyung Hee Kim (2011) found that individuals' degree of bilingualism and creativity are positively correlated, regardless of gender and age. Girls out performed boys in the areas of bilingualism, elaboration and abstractness of titles. Age was not an influential factor on either creativity or bilingualism. Yazdanjoo and Fallahpour (2018) the result revealed that the low, mid and high levels of Iranian EFL learner's creativity and metaphor use in the process of descriptive writing tasks were correlated. Leikim, M. et al (2014) reported that the relationships between creativity components and bilingualism are task dependent and when differences between bilingual and monolingual children are revealed, they are in favor of bilinguals. Al Johara Fahad Al Saud (2016) found that there were statistically significant differences between monolingual kindergarten children and bilingual kindergarten children in some creative capabilities favouring monolingual children. Leikin, M. (2016) revealed that prominent differences were observed between bilingual children from the bilingual kindergarten and monolingual children favouring bilinguals. Kharkhurin, A. (2009) acknowledged that it's exploratory character as the bilingual and monolingual groups might differ in a number of uncontrolled sociocultural factors that could potentially mediate the effect of bilingualism. Ghonsooly B. and Showqi S. (2012) show the foreign linguistic learning system enhanced new culture and custom, organization of idea and presentation. Bagaria S. (2016) found positive correlation between English language Creativity and Academic Achievement. Thonghattha M. et al (2016) reported that students' motivation towards creative English writing after using Storybird was at a high level. Mall-Amiri B. and Fekrazad S. (2015) results showed that there were no significant relationship between EFL learners' creativity and emotional intelligence. A positive medium relationship between English as a foreign learning learners' creativity and their language learning strategies was observed. Anatoliy V. Kharkhurin (2010) observed a monolingual advantage in verbal creativity and a bilingual advantage in non-verbal creativity. Lee H. and Kim K. (2010) revealed that the degree of bilingualism was positively associated with creativity. Dijk, M. et al (2018) suggested that creativity and bilingualism overview embodied cognition approach which holds creativity act, creativity and environmental bound. Chauhan and Sood (2018) found male secondary school students were having high mean score on originality than female secondary school students and in all dimensions of Nonverbal test of Creativity namely Elaboration, Originality and total creativity, rural secondary students score higher than urban secondary school students. Reddy, K. Viswanath, K. and Reddy, S. (2015) showed that in non-verbal creativity boys performed higher than girls, students of urban area performed higher than rural area and

Class X students scored higher than VIII and IX class students. Samanta, T. (2018) found that cognitive equivalence ability of the children increases with increase of their age. No significant differences were found in creativity with relation to children's types of family, formal schooling generation and number of siblings. It was also found that perceptible ability decreases and functional equivalence ability increases with increases in age. Siddiqi, S. (2011) reported that there is no significant difference between boys and girls in terms of total creativity. Raj, H. (2015) reported that the level of creativity of boys and girls is same. Kamboj, M. (2016) found that there is no significant difference between all the variations of verbal creativity of the boys except for the originality of the girls. Honzikova, J. and Krotky, J. (2014) suggested majority of the students was not found to be creative, but skilled. Jana (2018) revealed that gender and age have significant impact on elaboration, originality and creativity of primary school students. Sener, N. Tuk, C. and Tas, E. (2015) found that their project was effective in increasing the students view of levels of science and creative thinking; at the same time it was found that the using of different learning environments attracted student's interest in learning science and affected them positively towards science. Kumara, P. Pujar, L. and Naganur, S. (2014) showed insignificant influence of types of school, gender, and age on creativity thinking ability of children. Maria Elvira De Caroli and Elisabetta Sagone (2009) reported that there were no significant differences between girls and boys on measures of fluency, flexibility, and titles production. Nami, Y. Maral, H. Ashouri, M. (2013) found positive relationships between components of creativity and achievement. Potur, A. Barkul, O. (2009) reported that there were no gender differences in overall general intelligence and divergent thinking ability.

From the above discussion on the areas of creativity, it is evident that though many research studies have been conducted in these fields, but still these fields need special attention of researchers. After reviewing the related literature, it has been found, most of the related studies were conducted in urban areas. It is observed that most of the studies were conducted abroad and few studies in India and not a single study found in West Bengal. It has been also evident that though many studies concentrated on either creativity or creativity with respect to one or two back ground variables, but no studies found on the creativity of Mono-Lingual and Bi-Lingual Elementary school children in Tea Garden Area with respect to various background variables like gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification etc. comprehensively either in India or abroad. Further, analyses of various studies also

indicated that not a single study had been conducted language related creativity with relation to different background or independent variables in particular. And as the researcher belongs to the Jalpaiguri District, it was his primary motive to conduct the study in the concerned area. Moreover, the investigator could not find any study, which was conducted to measure elaboration ability, originality and creativity of primary school children in Jalpaiguri District, West Bengal, India. Hence the above research gaps and conditions evoked the researcher to think about conducting a comprehensive study to measure the elaboration dimension of creativity, originality dimension of creativity and creativity among Mono-Lingual and Bi-Lingual Elementary school children Tea Garden Area of Jalpaiguri District, West Bengal, India.

1.3.0 Statement of the Problem

Therefore in view of the above research gaps the present study can be stated as "Creativity among Mono-Lingual and Bi-Lingual Elementary school children of Tea Garden Area". The study focused on measurement of Mono-Lingual and Bi-Lingual language ability and creativity thinking ability of Tea garden area elementary level children with respect to various background variables.

1.4.0 Operational Definitions of the Major Terms Used

Creativity: Creativity is an even which is composed of something novel and somehow valuable. Creativity persons produce something and some fundamental ideas are found among them that other persons cannot produce great results. But the creative persons which creates that contents essential thing. The product that comes to society benefit.

Monolingual language: Monolingual language is a term which is used to define the only one language, used by the respondents.

Bilingual language: Bilingual language is a term which is used to define the two languages or more than two language used by the respondents in this study.

1.5.0 Objectives of the Study

The present study has started to achieve the following objectives:

1. To analyse elaboration dimension of creativity among monolingual elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
2. To analyse originality dimension of creativity among monolingual elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
3. To analyse creativity among monolingual elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
4. To analyse elaboration dimension of creativity among bilingual elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
5. To analyse originality dimension of creativity among bilingual elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
6. To analyse creativity among bilingual elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
7. To analyse elaboration dimension of creativity among elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
8. To analyse originality dimension of creativity among elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
9. To analyse creativity among elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
10. To compare elaboration dimension of creativity between monolingual and bilingual elementary level tea garden students.
11. To compare originality dimension of creativity between monolingual and bilingual elementary level tea garden students.

12. To compare creativity between monolingual and bilingual elementary level tea garden students.

1.6.0 Hypotheses of the Study

Ho1: There is no significant difference between male and female monolingual elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole;

Ho2: There is no significant influence of age of monolingual elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole;

Ho3: There is no significant difference among class five, class six, class seven and class eight monolingual tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho4: There is no significant difference among general, scheduled caste, scheduled tribes and other backward classes monolingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho5: There is no significant influence of familial monthly income of monolingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho6: There is no significant influence of number of siblings of monolingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho7: There is no significant influence of parental educational qualification of monolingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho8: There is no significant difference between male and female bilingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho9: There is no significant influence of age of bilingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho10: There is no significant difference among class five, class six, class seven and class eight bilingual tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho11: There is no significant difference among general, scheduled caste, scheduled tribes and other backward classes bilingual elementary level tea garden students in elaborate on dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho12: There is no significant influence of familial monthly income of bilingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho13: There is no significant influence of number of siblings of bilingual elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole;

Ho14: There is no significant influence of parental educational qualification of bilingual elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole;

Ho15: There is no significant difference between male and female elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole;

Ho16: There is no significant influence of age of elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole;

Ho17: There is no significant difference among class five, class six, class seven and class eight tea garden elementary school students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho18: There is no significant difference among general, scheduled caste, scheduled tribes and other backward classes elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho19: There is no significant influence of familial monthly income of elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho20: There is no significant influence of number of siblings of elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho21: There is no significant influence of parental educational qualification of elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho22: There is no significant difference between monolingual and bilingual elementary level tea garden students in elaboration dimension of creativity;

Ho23: There is no significant difference between monolingual and bilingual elementary level tea garden students in originality dimension of creativity;

Ho24: There is no significant difference between monolingual and bilingual elementary level tea garden students in creativity as a whole.

1.7.0 Delimitations of the Study

This study has been conducted in short period of time and it is not possible to undertake research on all areas of the problem. The present study was delimited by the researcher in

1. The researcher included the upper primary schools students of Jalpaiguri District n West Bengal as the populations for the study.
2. The study restricted to 200 students of class V, VI, VII and VIII from four schools as sample.
3. This study sample was taken from rural school students only.
4. The study was delimited to four Bengali medium schools only.
5. The study was delimited to broadly one dependent variable' nonverbal creativity thinking ability.
6. The study was delimited to seven independent variable like "Gander", "Age", "Grade", "Caste", "Income", "Number of sibling" and "Prenatal Educational Qualifications".

7. This study was delimited to three dependent variable like elaboration dimension of creativity, originality dimension of creativity and creativity as a whole.
8. The tool used for the study was Dr. Baqer Mehdi's NVTCT-M.

CHAPTIETR – II

REVIEW OF RELATED LITERATURE

2.1.0 Introduction

The review of related literature involves the systematic identification, location and analysis of documents containing information related to the research problem. The major purpose of reviewing the literature is to determine what has already been done that relates to your topic. This knowledge not only avoids unintentional duplication, but it also provides the understanding and insights necessary to develop a logical frame work into which your topic fits. In other words, the review tears the researchers what has been done often and in so doing, also suggests what needs to be done. Earlier studies can provide the rationale for your research hypothesis and indications of what needs to be done often from the basis for justifying the significance of your study. Review of related literature helps an investigator to eliminate the duplication of what has been done and project provides useful hypothesis and helpful suggestions for significant investigation (Best and Kahn, 1999).

2.2.0 Related studies

Jana, P. (2018) conducted a study on "Creativity and Learning Style among Primary School Children". The objectives of this study was to influence whether learning style has any significant impact on creativity of primary school students. The total sample of 303 primary school students from five Bengali Medium schools of district of West Bengal namely Paschim Medinipur, were selected as sample of the study by following convenient sampling technique. The used of the data collected were standardized scale namely, 'NVTCT-M' development by Dr. Baqer Mehdi and Learning Style Inventory by Dr. Richard Oliver. The data analysis was using Descriptive and Inferential statistics namely, Frequency, Mean, Standard Deviation, Percentage Analysis, t-test, ANOVA, Chi-test. In this study as result showed not significant differences between revealed of gender, caste family income and religion of primary school students with the creativity and learning style of the children through of the study. As result showed a significant difference with their

elaboration, originality, overall creativity among their different age and gender primary school students.

Samanta. T, (2018) conducted a study entitled as "Cognitive Equivalence and Creativity among Primary School Children". The mean objectives of this study were to measure the cognitive equivalence and creativity thinking ability and also to find out the impact of grade, gender, family types, number of sibling and medium of instruction and formal schooling generation of the children on creativity equivalence and creative thinking ability. This study total semple size out of 96 students (48 Bengali medium and 48 English medium) form urban district of west Bengal namely, South 24 Poragana. The data collected were two tool used of cognitive equivalence measuring pictorial task developed by Khan and Mohakud and creative thinking scale (NVTCT) developed by Mehdi. The data were analysed through percentage analysis, T-test, and one-way ANOVA technique is SPSS-21. This study results show, that cognitive equivalence ability of the children increases with increase of their age. There are not significant were found in children's number of sibling and formal schooling generation and not significant between types of family, formal schooling and number of sibling on creativity. It was also found that perceptible ability decreases and functional equivalence ability increases with increases in age.

Ali Ghufron M. and Ermawati (2018) conducted a study on "Facilitating Students' Verbal Creativity in EFL Writing Course". The objectives of this study was providing students with learning activities that could promote students verbal creativity. The sample of this study was the second-grade, consisting of 30 students of English Education Department in a private university in East Java. In this study dada collected was taken from class observation, VC test and in-depth interview. The researchers used of some keywords were verbal creativity, EFL writing course, pedagogical attempt and collaborative action research. This study result show those nine steps are remembering English grammar and structure, promoting creative writing, creating a fictional story, asking and answering questions, boosting vocabulary through screenwriting, circle of life, drawing and speaking, sharing a speech, and asking the students to create their own activities.

Chauhan and Sood (2018) conducted a study on "A Study of Nonverbal Creativity among Secondary School Students in Relation to Gender and Locate". Researchers here are trying to learn how much elaboration, originality among the school students through nonverbal creativity test. The study of sample size 1600 (800males and 800females) students studying

in 9th and 10th standard of senior secondary school. The researchers sample collected in the rural and urban area in Sirmour District of Himachal Pradesh. The researchers were collected of the data used tool of Nonverbal Test of Creativity developed by Baqer Mehdi. The data was analysed with the help of t-test and two way ANOVA. The finding of the study was than male secondary school students were having high mean score on originality than female secondary school students. And all dimensions of Nonverbal test of Creativity namely Elaboration, Originality and total creativity rural secondary students (Mean=101.83, SD= 20.02) score higher than urban secondary school students (Mean=97.98, SD=17.03).

Dijk, M. et al (2018) conducted a study on "Bilingualism and creativity: Toward a Situated Cognition Approach". The mean objective of this study was monolingual and bilingual are compared and which type of linguistic students are more than creativity have this justify in the cognition approach. The researchers used of some keywords were creativity, bilingualism, situated-embodied cognition, affordances. The finding of this study creativity and bilingualism overview embodied cognition approach which holds creativity act, creativity and environmental bound.

Yazdanjoo S. and Fallahpour H. (2018) conducted a study on "A Study on the Correlation between Creative Thinking of Iranian EFL Learners and Using Metaphor in Descriptive Writing Tasks". The objective of the study was to identify whether or any significant correlation between low level (50-75) mid-level (76-85) and high levels (86-100) of creativity in female and male Iranian EFL learners and using metaphor in descriptive writing tasks. This study was total sample out of 50 EFL learners (28 females and 22 males) whose age ranged from 20 to 30. The researcher used of some keywords were Creativity, Metaphor, Descriptive writing, Creative thinking, Brain based functions, Literacy device, foreign language learning, Creative ability. The data analysed were used of t-test and ANOVA. This study the result revealed that the low, mid and high levels of Iranian EFL learner's creativity and metaphor use in the process of descriptive writing tasks were correlated. The results have implications for language teachers and materials developers.

Hasan (2017) conduct a study on "A Study of Verbal and Nonverbal Creativity (Divergent Thinking) and Intelligence of 10th Class Boys of Different School Boards". The mean objective of this study was to compare differences convent, government and private 10th

class school students through verbal and nonverbal creativity test. The researcher collected by randomly selected 150 sample of class 10th students in different convent, government and private schools of Bareilly UP of India. The researcher used by keywords i.e. divergent thinking, fluency, flexibility, originality, creativity, intelligence. The data was analysed with the help of t-test and ANOVA. The study result standard deviation of convent school and government school students in respect to private schools students.

Sanchez-Escobedo, P. Misiuniene, J. and Mockaityte, E. (2015/2017) conducted a study on "A Comparison of Non-Verbal Creativity between Lithuanian and Mexican Adolescents". The objective of this study work was to explore non-verbal creativity free from language influences among Mexican and Lithuanian adolescents. A total of 354 high school students (average age 17.2 years) from Lithuania and Mexico participated in this study. The researchers used some keywords i.e. EMUC, visual-spatial creativity, inventive creativity culture. No significant difference between the procedures of administering, interpreting and using the test results in these two countries. In commonly, Mexicans show more originality, whereas Lithuanians show more fluidity and flexibility. The result indicates a low relationship between high creative potential and vocational choices that demand creativity such as deign, music, etc. Women showed high creativity on visual-spatial work, when men in originality for inventors. Overall results suggest that visual-spatial tasks of this age range focus on elaboration and originality, since the ingenuity task should focus on fluidity and flexibility.

Soleymani, M. Hemmati, S. Ashrafi-Rizi, H. and Shahrzadi. L. (2017) conducted a study on "Comparison of the effects of storytelling and creative drama methods on children's awareness about personal hygiene". The objective of this study was to compare the effects of storytelling and creative drama education methods on increasing the wariness of children regarding personal hygiene. The total sample sizes of 85 children participating. The researcher's use of the study was keywords; i.e. children, creativity drama, health education, storytelling. The data analyses were using both descriptive (average and standard deviation) and analytical (independent t-test and paired t-test) statistical methods. The results of the study shows that the average score of creative drama group was increased from 57.37 to 85.09 when the average awareness score of group was increased from 50.69 to 86.83. The results of the present study shows that both creative drama and storytelling methods were effective in increasing the awareness of children regarding personal hygiene.

The finding of this present study, there were no significant differences between creative drama method and storytelling method.

Bagaria S. (2016) conducted a study on "Study of English Language Creativity in Relation To Achievement in English of Class Xi Students". The objectives of this study was the relation between English language Creativity and achievement in English of class ten students. The total sample size of 98 class XI students. The present study data collection is used of random sampling. The data collection used of tool are English language scale by S.P Malhotra and Sucheta Kumari. The data analysis by using English Language Creativity and Achievement of students in English between Pearson's coefficient of correlation. The results of the study clearly shows the positive correlation between English Language Creativity and Academic achievement which means a good level of language creativity of the learner will lead to good academic achievement in English.

An intensive study was there in the concerned area entitled as "The effect of bilingualism on creativity: Developmental and educational perspectives" conducted by **Leikin, M. (2016).** The main purpose of this study was to examine the possible effect of bilingualism on creativity in nonmathematical and mathematical problem solving among very young bilingual and monolingual pre-schoolers. In this study, three groups of children (mean age = 45.4 months at the beginning of the study) participated : (a) 13 bilingual children from a bilingual (Hebrew–Russian) kindergarten, (b) 10 bilingual children from a monolingual (Hebrew) kindergarten, and (c) 14 monolingual children (Hebrew) from a monolingual kindergarten. All the subjects need to perform the Picture Multiple Solution task on general creativity and the Creating Equal Number task on mathematical creativity. It has been found that both early bilingualism and some form of bilingual education seem to influence the children's general and mathematical creativity. Moreover, differences between bilingual children from the bilingual kindergarten and monolingual children were more prominent (in favour of the bilinguals).

Kamboj, M. (2016) conducted a study on "Study of creativity among boys and girls of class VIII: A review". The objective of this study was to investigate differences between boys and girls in relation to the different aspects of creativity. The used of the data collection was Torrance Test of Creativity thinking (Verbal Form A) designed by E.P. Torrance. The total of 50 samples (25 boys and 25 girls) studying in two secondary schools of Rewa City was randomly selected. The data was analysed with the help Mean S.D and

T-test. The researcher used some keywords i.e. Creativity, Boys and Girls. The measure of fluency mean score boys and girls was found to be 37.57 and 37.32 and S.D.s were found to be 10.55 and 12.83 respectively. The fluency 't' value was found to be 0.14 which is not significant. The mean scores of the boys and girls on the measure of flexibility were found to be 32.65 and 31.67 and there corresponding S.D.s were found to be 6.89 and 7.90 respectively. The flexibility 't' value was 0.58 which is not significant. On originality the mean score of the boys was 6.84 and girls 7.90 respectively. The difference between the two means was significant at 0.01 levels as the t value was 2.14. The measure of the total creativity means boys 72.53 and girls 71.94 and their respective S.D.s was 21.22 and 25.52. The 't' value was found to be 0.17 which is not significant. It is found that there is do not significant difference between all the variations of verbal creativity of the boys except for the originality of the girls.

Thonghattha M. et al (2016) conducted a study on "Effects of Using Storybird to Enhance Creative English Writing Ability of Mathayomsuksa III Students". The objectives of this study was that their motivation towards creativity writing and the study students' creative English writing ability by using Storybird. This study was total participants 25 Mathayomsuksa III students of Pakphanang School. The researcher used of some keywords were Storybird, creative English writing Ability, motivation. This study used of tools were Storybird, lesson plans, a paper-based creative English writing pre-test and post-test and a questionnaire on students' motivation. This study results show that creative English writing ability after using Storbird was significantly higher than before at a 0.05 level. Moreover, the students' motivation towards creative English writing after using Storybird was at a high level.

Mall-Amiri B. and Fekrazad S. (2015) conducted a study on "The Relationship among Iranian EFL Learners' Creativity, Emotional Intelligence, and Language Learning Strategies". The objective of this study was to investigate the relationship among EFL learner's creativity, emotional intelligence, and language learning strategies. This study of total sample out of 120 students majoring in English translation and English literature at B.A level and English teaching at M.A level at Islamic Azad University. The researcher used of some keywords were creativity, emotional intelligence, language learning strategies. The data analysed were used of t-test and ANOVA. This study results show there were no significant relationship between EFL learners' creativity and emotional

intelligence. Moreover a positive medium relationship between English as a foreign learning learners' creativity and their language learning strategies was observed.

Sener, N. Tuk, C. and Tas, E. (2015) conducted a study on "Improving Science Attitude and Creative Thinking through Science Education Project: A Design, Implementation and Assessment". The objective of this study is to examine the effect of the implementation of a science education project in the environment of different learning on the creativity thinking skills of secondary students and their attitudes towards science lesson. In this present study the total sample 50 (males 25 and female 25) students in Samsun city. For this study in the scope of a five-day long project, students were presented with hands-on activities, laboratory practices, outdoor practices, creative drama, planetarium and observatory activities to enable them to the different nature and science view. The present study was designed as one group, pre-test post-test experimental research. The used of the data collection was Torrance Test of Creativity thinking verbal A-B from designed by E.P. Torrance and three points Likert scale developed by Nuhoglu. The present study data have been collected through quantitative research and qualitative research. The data analysis were used through non-parametric tests, Wilcoxon signed ranks test, Mann Whitney-U test, parametric test and t-test. The results of the study found that this project was effective in increasing the students view of levels of science and creative thinking; at the same time it was found that the using of different learning environments attracted student's interest in learning science and affected them positively towards science.

Raj, H. (2015) conducted a study on "A Comparative Study of Scientific Creativity among Boys and Girls of Class IX". The objective of this study was investigate the differences between boys and girls in view of various aspects of scientific creativity. The total samples size of 96 (53 boys and 43 girls) studying in five secondary schools of Varanasi city of Uttar Pradesh was randomly selected. Some keywords used by researcher; i.e. scientific creativity and secondary school students. The data analyses were used of means, SDs and t-test. Based on the analysis of scientific creativity information of secondary school students, it is called the conclusion that the level of thinking of the creativity of boys and girls is the same level.

Reddy, K. Viswanath, K. and Reddy, S. (2015) conducted a study on "Impact of Demographic Variables on Non Verbal Creativity among High School Students". The researches use to tool creativity battery test by Venkatarami Reddy (1982), the battery of

creativity test consisted of seven verbal and three nonverbal subjects. The purpose of this is to examine the effect of class, gender and locality of study on among the 600 secondary students; equally divided between the two ganders (boys=300 and girls=300), two localities (rural=300 and urban=300) and three classes (viii=200, ix=200 and x=200). The study their fluency flexibility originality and composite male students score higher than female students on their nonverbal creativity. The study shows boys are in higher nonverbal creativity mean score than girls, urban area higher mean score than rural area mean score and class X students score the highest mean than VIII and IX class students.

Alghafri and Ismail (2014) conducted a study on "The Effects of Integrating Creative and Critical Thinking on Schools Students' Thinking". The purposes of this study was to improve students' learning developing their performance creative thinking of science task. This is a quasi-experimental research design. This study total sample size was 68 students (32 thinking skill group and 36 control group) and there were selected randomly two different primary schools from Malaysian. The findings found that there were significant differences in fluency, flexibility respects to thinking skill group comparing with control group, due to the fact that students feel free to more ideas for the activities in thinking skill group.

Honzikova, J. and Krotky, J. (2014) conducted a study on "Nonverbal Creativity in Students of Pedagogy for Technical Education at Elementary Schools". The researchers used urban's test TSD-Z as the research method. The researchers used some keywords i.e. project SGS, Creativity testing, pedagogy students, Urban's figuaral Test of Creativity, and technical education etc. This research focuses on qualitative, contextual and elaborative aspect of creativity. Here some figures have been used like-semicircle wave line, dot, right angle, dashed line, 'u' off the frame. It has been found most of the students achieved below-average and average level among the seven categories; deeply below average, below average, average, above average, highly above average, extremely above average, phenomenal. Moreover, majority of the students was not found to be creative, but skilled.

Mark Leikin, Esther Tovli and Sergey Malykh (2014) conducted a study entitled as "Bilingualism and Creative Abilities in Early Childhood" in order to know about the impact of early bilingualism on the development of general creativity and mathematical creativity. Two groups of bilingual and monolingual pre-schoolers (mean age = 60.9 months, SD= 3.1) from the same monolingual kindergarten participated in this study: 15 Russian/Hebrew

balanced bilinguals and 15 native Hebrew-speaking monolinguals. All children were administered the Figural Form A (Thinking Creatively with Pictures) from the Torrance Tests of Creative Thinking, the Pictorial Multiple Solution Task assessing general creativity, and the Creating Equal Number task measuring mathematical creativity. It has been found bilingual children showed higher creative ability than their monolingual peers i.e. bilingualism affects various domains of creative ability differently. The results also demonstrate that relationships between creativity components and bilingualism are task dependent, and when differences between bilingual and monolingual children are revealed, they are in favour of bilinguals. In other words, advantages in creative ability in bilinguals are specific rather than general.

Kumara, P. Pujar, L. and Naganur, S. (2014) conducted a study entitled as "Creative Thinking Ability among High School Children". Out of the total sample 150 were boys and 105 girls' five urban high school children studying in the age group of 13-16 year from Dharwad Taluk. The researcher's use of the study were Keywords; i.e. age, children, gender, and Creativity thinking ability. Creative thinking check list developed by AICRIP-CD Dharwad center (2010) and Creative thinking scale developed by Mehdi (1989) were used to measurement the creative thinking ability of children. The finding of this present study showed insignificant influence of types of school, gender, and age on creativity thinking ability of children.

Alhajri S. (2013) conducted a study on "Developing a Pedagogical Model to Enhance and Assess Creativity in Omani Graphic Design Education". The objectives of this study were to identify some creativity- thinking techniques that Omani graphic design students can practise to enhance their creativity and to identify some pedagogical s strategies utilised by graphics lectures that can enhance the creativity of graphic design students. The total sample size of the online questionnaire was conducted with 33 international participants and the same set of questions was asked in face-to-face interviews conducted with 39 (24 males and 15 females) participants. The date collection method were used as questionnaires and interviews. The researcher used of some keywords were Creativity definition, creativity assessment, creativity enhancement, wicked problems, creative design process, design lecturers, graphic design students, teaching creativity, problem solving, pedagogical model. The data analysis was using thematic analysis method. The collected data were utilised to develop the proposed pedagogical model designed for graphic design lecturers who teach design courses within Omani design education. This research states that creativity is an

integrated component of cutting edge graphic design education; it is highly linked to graphics practices by default.

Nami, Y. Maral, H. Ashouri, M. (2013) conducted a study on "The Relationship between Creativity and Academic Achievement". The objectives of this study was to find the relationship between students' creativity and academic achievement. The sample of 72 subjects. The data were collected using student questionnaire and Torrens creativity statics. The researchers used some keywords; i.e. creativity, achievement and student. The data were analysed by both descriptive and inferential statics. The finding of the study captured components of creativity and achievement and there positive relationships.

Al Johara Fahad Al Saud (2012) conducted a study entitled as "The Impact of Bilingualism on the Creative Capabilities of Kindergarten Children in Riyadh, Saudi Arabia." This research attempted to investigate the impact of bilingualism on the creative capabilities (Fluency, Flexibility, Originality, Details) of kindergarten children in Riyadh. It aimed at identifying the differences in the creative competences among children (monolingual and bilingual) in Saudi Arabia. The researcher used the experimental method, as it is convenient to the nature of the study. She used the scale of Torrance of creative capacity in order to identify the creative abilities of children. The randomly chosen sample was divided into two groups: the bilingual group (n = 40), and the control monolingual group (n = 40). The found results was like- there were statistically significant differences at ($\alpha = 0.05$) between the mean scores of monolingual kindergarten children and the mean scores of bilingual kindergarten children in some creative capabilities in favour of monolingual children of the study. In light of the findings, the researcher recommended the need of resolving the controversy over the issue concerning when children can start to learn a foreign language.

Chao-Jen Cheng et al. (2012) conducted a study entitled as "The Relationship of College Students' Process of Study and Creativity: Creative Self-Efficacy as a Mediation". The objective of this study was to investigate the relationship among student's process of study, creative self-efficacy and creativity while attending college. Out of the total sample of 60 students in Hsiuping University of Science and Technology in central Taiwan were selected. The samples 68.3 % of the respondents are female and 31.7% of the respondents are male. The researcher used of some keywords were Process of study, Creative self-efficacy, Creativity. The data collection tool used were Creative Self-efficacy and process

of study and creativity. The data analysed used were Pearson Correlation and Hierarchical Regression. This study found that that process of study was significantly related to creativity. The finding of this study were the process of study had direct positive predictability on creativity and relationship between process of study and creativity is partially mediated by creative self-efficacy.

Ghonsooly B. and Showqi S. (2012) conducted a study on "The Effects of Foreign Language Learning on Creativity". The objectives of this study was comparing the performance of advanced of English as a foreign language and their early beginner counterparts on a measure of divergent thinking ability. The total sample size out of 60 advanced learners (aged 16 to 18). The researchers were collected of the data used tool of Torrance Test of Creative Thinking (TTCT). The researchers used of some keywords were Creativity, Divergent thinking, Foreign language learning, Monolinguals. The results revealed that learning EFL to an advanced level significantly enhances all four divergent thinking abilities, i.e. flexibility, originality elaboration and fluency. Such enhancement can be attributed to specific cognitive practices that language learning brings, and the psychological consequences of being trained under a system different from school system. The finding of this study was the foreign linguistic learning system enhanced new culture and custom, organization of idea and presentation. This study made better understanding of learning and creativity.

Hadzireorgiou, Y. Fokialis, P. and Kabouroulou, M. (2012) conducted a study on "Thinking about Creativity in Science Education". The objectives in this study were discussed the concept of creativity in the contexts of science and science education. The researcher's use by some keywords; i.e. Creativity, Imagination, Science and Science Education. In this way, we consider and reflect on some taken-for-granted ideas associated with the creativity of school science, research into science and integrating art and science, and when we search the concept of scientific creativity that is both compatible with both the nature of science and the general concept of creativity and also realistic in the context of science of school education. We then purpose of activities/strategies that encourage age creativity and more specifically creative thinking, by the learning of school science.

Hangeun Lee and Kyung Hee Kim (2011) conducted a study entitled as "Can speaking more languages enhance your creativity? Relationship between bilingualism and creative potential among Korean American students with multicultural link." The purpose of the

study was to examine the relationship between individuals' creativity and their degree of bilingualism, which is reflective of multicultural experiences. A total of 116 Korean American students (49 boys and 65 girls) participated in this study. The Word Association Test (Lambert, 1956) and Subject Self Rating (Peal and Lambert, 1962) were used to measure participants' bilingualism, and the Torrance Tests of Creative Thinking (Torrance, 2008) was used to measure their creative potential. It has been found that individuals' degree of bilingualism and creativity are positively correlated, regardless of gender or age. Girls outperformed boys in the areas of bilingualism, Elaboration, and Abstractness of Titles, and age was not an influential factor on either creativity or bilingualism.

Mattoo, M. (2011) conducted a study on "Vocational Interests and Academic Achievement of Secondary School Students at Different Levels of Creativity Thinking Ability-A Comparative Study". The objective of this study between vocational interest's creative thinking ability and academic achievement. The total sample of boys 700 and girls 300 studying 26 secondary schools of Kashmir state was randomly selected. The used of data collected was Baquer Mehdi's Verbal Test of Creative Thinking ability and Chatterji's Non-Language Preference Record. The data analysed was used of ANOVA. It has been found in the study that the two groups have significantly differentiated the investigative variables without academic achievement.

Siddiqi, S. (2011) conducted a study on "A Comparative Study of Creativity among Boys and Girls of Class VII". The objective of this research was to investigate differences between boys and girls in relation to the different aspects of creativity. The total of 100 samples secondary schools of Aligarh (50 boys and 50 girls) city was randomly selected. The used of data collected was Torrance Test of Creative Thinking designed by E.P Torrance. The data were analysed with the help of SD and T-Test. This result of this study is that the fluency (boys mean=37.57, SD=10.55 and girls mean=37.32, SD=12.83), flexibility (boys mean=32.65, SD=6.89 and girls mean=31.67, SD=7.90), originality (boys mean=6.84, SD=8.01 and girls mean= 5.07, SD=6032) the result clearly shows that there is no significant difference between boys and girls in terms measure of total creativity.

Naderi, N. Abdullah, R. Aizan, H. Sharir, J. Kumar, V. (2010) conducted a study on "Relationship between creativity and academic achievement: A study of gender differences". The purpose of the study was to examine the relationship between creativity and academic achievement and the relationship between boys and girls. In this sample 153

participants (105 boys and 48 girls) completed creativity test. The researchers used some keywords i.e. Academic Achievement, Creativity and Gender. In this study collected data used of two tools firstly, Cumulative grade point average (CGPA) and secondly, Khatena-Torrance Creative Perception Inventory (KTCPI). The data were analysed with the help of Pearson correlation and ANOVA. The result of the study was creativity and academic achievement to be significant for males and females.

Anatoliy V. kharkhurin (2010) conducted a study on "Bilingual verbal and nonverbal creative behaviour". The objective of this study was to investigate the influence of bilingualism on verbal and non-verbal creative abilities in Brooklyn college students (USA). The total sample size out of 103 immigrants from former Soviet Union both speak English and Russian (78 female and 25 male) and 47 native monolingual English speakers (18 male and 29 female) selected for monolingual group. The data collected used of tool was Abbreviated Torrance Test for Adults. This study result show a monolingual advantage in verbal creativity and a bilingual advantage in non-verbal creativity. These results contribute to the discussion of domain specificity of bilingual cognitive skills with regard to creative thinking.

Kharkhurin, A. (2009) conducted a study on "The Role of Bilingualism in Creative Performance on Divergent Thinking and Invented Alien Creatures Tests". The objective of this present study was continues the effort to look into the possible impact of bilingualism on individual's potential of creativity. The performance of Farsi monolinguals living in Iran and Farsi-English bilinguals living in the USA were compared on the Culture Fair Intelligence Test battery and two creativity tests (divergent thinking test and structured imagination test). The total samples size out of 81 participants. The bilingual's participants were 34 American university of Sharjah 16 males and 18 females students who speak Farsi as their first language and English as their second language and monolingual's participants were 37 Azadi psychiatric Hospital (Iran) 6 males and 31 females students who speak only Farsi. The data analysed was used of the t-test and ANOVA. The results show of the divergent thinking test stated that bilingualism facilitates the innovative capacity, the ability of eliminate novel and unique ideas, but not the capacity of genetic. The difference between monolinguals and bilinguals performed of the present study can be reason to the factors not related to bilingualism by birth. In addition, the creativity effectiveness of the study indicates the validity of the construct of these two tests of creativity functioning. However, the study acknowledges it's rather exploratory character as the bilingual and monolingual

groups might differ in a number of uncontrolled sociocultural factors that could potentially mediate the effect of bilingualism.

Maria Elvira De Caroli and elisabetta sagone (2009) conducted a study on "Creative Thinking and Big Five Factors of Personality Measured in Italian Schoolchildren". The objectives of this study were examined the relations of creative thinking with big five factors of personality and the differences by age and gender on creativity. Out of the total samples 112 (56 boys and 56 girls) from Italian school children between age 8 to 10 years, completed the Test of Creative thinking and the Big Five Questionnaire for Children was a self- report questionnaire. The data were analysed using two-way analyses of variance, t-test and Pearson's correlations. The finding of the study, there were no significant differences between girls and boys on measure fluency, flexibility, and titles production.

Lee H. and Kim K. (2010) conducted a study on "Relationships between Bilingualism and Adaptive Creative Style, Innovative Creative Style, and Creative Strengths among Korean American Students". The objectives of this study was to investigation whether there was a relationship among different degrees of bilingualism and creativity. This study total sample size out of 116 (49 boys and 65 girls) Korean American students participated and they consisted of boys with mean age of 11.8 and girls with mean age of 11.3. The Word Association Test and the Subjective Self Rating were used to determine the degrees of bilingualism, and to measure creative potential test used was the Torrance Test of Creative Thinking–Figural. This study results show that the degree of bilingualism was positively associated with creativity.

Potur, A. Barkul, O. (2009) conducted a study on "Gender and creative thinking in education: A theoretical and experimental overview". The objectives of the empirical study was to gender discrimination in design education by divergent thinking measure that were 'fluency', 'originality', abstractness of titles', 'elaboration' 'resistance to premature closure' as stated in the Guilford's Structure-of-Intellect model. The total sample sizes of 147(females 88 and males 59) undergraduates students. The researcher's use of the study were Keywords; i.e. Gender comparison, creativity, divergent thinking, and architectural education. The finding of the study there were insignificant sex differences in creative thinking ability. The major finding of this study, there were no gender differences in overall general intelligence and divergent thinking ability.

Joussement, M. and Koestner, R. (1999) conducted a study entitled as "Effect of Expected Rewards on Children's creativity". The objectives of this study was to determine whether the expected reward for showing of divergent thinking on a task reducing creativity in that task and in a subsequent one. The total samples of 61 female gymnast participants (between the ages of 4 and 17 years) and randomly data collected. All participants completed both a training task, which required divergent thinking and a transfer task. The award contingency was in only effective during task. The results indicated that the award lead to the preparation of younger children to generate less appropriate children themes for children's training task and children of all ages to draw somewhat less creative pictures on the transfer task. The finding of this study was also the consensual judgment of creativity sensitive to the child's age than the rarity measure.

CHAPTER – III

METHODOLOGY OF THE STUDY

3.1.0 Introduction

The fulfilment of any research work fully depends upon the proper methodology of the study. It is worthwhile to use the proper methodology according to the nature of the problem as the nature of problem varies from problem to problem. The methodology section of the present study includes population, sampling and sampling procedure, tool used, method used and statistical techniques to be used for the data analysis purpose.

3.2.0 Population of the study

The tea garden area based elementary school children of Jalpaiguri district in West Bengal are the population of the study.

3.3.0 Sample and sampling procedure of the study

Total 200 elementary level school going students were selected as subject from rural tea garden area of Jalpaiguri District in West Bengal. Five Bengali medium schools were selected as a sample of the study following convenient sampling technique. The researcher of the study has taken boy and girl students both as the sample (100 boys and 100 girls). Further, they were broken down into four sub categories i.e. Class-V, Class-VI, Class-VII, and Class-VIII ranging from the age group of ten to fourteen years. Every group selected has twenty five male and twenty five female students respectively. However the detail distribution of sample is given in the table-

Figure No: 3.3.1 Sample Distribution of Mono-lingual Students:

Variable	Categories	Frequency (N)	Percent
Gander	Male	53	48.62
	Female	56	51.38
	Total	109	100
Grade	Grade-V	31	28.44
	Grade-VI	29	26.60
	Grade-VII	28	25.69
	Grade-VIII	21	19.27
	Total	109	100
Age	10	36	33.33
	11	28	25.93
	12	28	25.93
	13	11	10.18
	14	5	4.63
	Total	108	100
Caste	General	10	8.5
	Scheduled Caste	73	56
	Scheduled Tribe	4	21.5
	Other Backward Classes	22	14
	Total	109	100
Family income	Up to 3000	60	55.05
	Above 3000	49	44.95
	Total	109	100
Number of sibling	No sibling	13	11.93
	One Sibling	56	51.37
	Two sibling	25	22.94
	More than two sibling	15	13.76
	Total	109	100
Parental educational qualifications	Illiterate	8	7.34
	Primary	58	53.21
	Secondary	39	35.78
	Higher Education	4	3.67
	Total	109	100

Figure No: 3.3.2 Sample Distribution of the Bilingual Students:

Variable	Categories	Frequency (N)	Percent
Gander	Male	47	51.65
	Female	44	48.35
	Total	91	100
Grade	Grade-V	19	20.88
	Grade-VI	21	23.08
	Grade-VII	22	24.17
	Grade-VIII	29	31.87
	Total	89	100
Age	10	16	18.18
	11	17	19.32
	12	21	23.86
	13	25	28.41
	14	9	10.23
	Total	88	100
Caste	General	7	7.69
	Scheduled Caste	39	42.86
	Scheduled Tribe	39	42.86
	Other Backward Classes	6	6.59
	Total	91	100
Family income	Up to 3000	48	52.75
	Above 3000	43	47.25
	Total	91	100
Number of sibling	No sibling	12	13.19
	One Sibling	46	50.55
	Two sibling	15	16.48
	More than two sibling	18	19.78
	Total	91	100
Parental educational qualifications	Illiterate	3	3.30
	Primary	51	56.04
	Secondary	30	32.97
	Higher Education	7	7.69
	Total	91	100

Table: 3.3.3 Total Sample Distribution of the Study:

Variable	Categories	Frequency (N)	Percent
Gander	Male	100	50
	Female	100	50
	Total	200	100
Grade	Grade-V	50	25
	Grade-VI	50	25
	Grade-VII	50	25
	Grade-VIII	50	25
	Total	200	100
Age	10	52	26.53
	11	45	22.96
	12	49	25
	13	36	18.37
	14	14	7.14
	Total	196	100
Caste	General	17	8.5
	Scheduled Caste	112	56
	Scheduled Tribe	43	21.5
	Other Backward Classes	28	14
	Total	200	100
Family income	Up to 3000	108	54
	Above 3000	92	46
	Total	200	100
Number of sibling	No sibling	25	12.5
	One Sibling	102	51
	Two sibling	40	20
	More than two sibling	33	16.5
	Total	200	100
Parental educational qualifications	Illiterate	11	5.5
	Primary	109	58.5
	Secondary	69	34.5
	Higher Education	11	5.5
	Total	200	100
Language ability	Monolingual	109	54.5
	Bilingual	91	45.5
	Total	200	100

3.4.0 Key Variables of the Study

Here the researcher used two types of variables' independent and dependent variable as discussed below:

A. Independent Variables: In this study, following variables were the independent variables like -

1. **Gender**: The researcher in this present study included Gander as an independent variable divided into two dimension that is boys and girls.
2. **Grade**: The researcher in this present study included class as an independent variable into four categories i.e. V, VI, VII and VIII.
3. **Age:** The researcher in this present study included age as one of the independent variables. There were five age categories that is 10, 11, 12, 13 and 14years.
4. **Caste**: The researcher in this present study included caste as an independent variable into four categories i.e. General, SC, ST and OBC.
5. **Income:** Familial monthly income was considered to be an independent variable in the study having two categories i.e. up to 3000 and above 3000.
6. **Parental Educational Qualification:** The researcher in this present study included parental educational qualification as an independent variable into four categories i.e. illiterate parents, primary education, secondary education, and higher education qualified parents.
7. **Number of Sibling**: In the present study, the researcher included number of siblings as an independent variable. Further this variable has been divided into four categories like- no sibling, one sibling, two siblings, three siblings and more than three siblings
8. **Use of Language:** In the present study the researcher include use of language as an independent variable. Further this variable divided into two categories like- monolingual (only one language) and bilingual Language (two or more than two language).

B. Dependent variables: In the present study, three dependent variables have been selected and these are like- the dimension of elaboration, the dimension of originality and creativity as a whole. In order to measure the influence of independent variables on the status of dependent variables, the study was conducted. Briefly in the study, there were three dependent variables like-

1. Elaboration

2. Originality
3. Creativity

3.5.0 Method and Procedure of the Study

The present study was a survey research. It is a cross-sectional survey research as the researcher made a survey for collecting data regarding non-verbal creative thinking of elementary level school students from the randomly selected sample i.e. 200 elementary school students of four schools of the district of West Bengal namely Jalpaiguri. The data were collected from different cross-sections of the sample like- gender wise, grade wise, age wise, caste wise, familial income wise, parent's educational qualifications wise, lingual wise and number of sibling wise.

3.6.0 Tool used for dData Collection

In the present study, the researcher used the tool for collecting data was 'Non-Verbal Test of Creativity Thinking' by Dr. Baqer Mehdi. This non-verbal test of creative thinking measures the creative ability of the individuals to deal with figural content in a creative manner. The tool used for the students contained 26 items. This test items were divided into three types i.e. picture construction, picture construction and triangles and ellipses. There are Activity-I containing 2 items, which belong to picture construction and the time duration is 10 minutes for completing the activity, Activity-II containing10 items, which belong to picture completion and in order to complete the task 15 minutes time duration has been paid to the task and Activity-III containing 7 triangles and ellipses and the total time duration is 10 minutes for completion of the task. Therefore, the total time required for the test is 35 minutes, in addition to the time required for giving instructions, passing booklet and collect them back.

All items based on the following three items: -

1. **Picture construction activity (Activity-I):**

This activity presents the subject with two simple geometrical figural, a semi-circle and a rhomb, and requires him to construct an elaborate picture using each figural as an

integral part. He is also asked to give an interesting and suitable title to each picture he makes.

2. **Picture completion activity (Activity-II):**

This activity consists of 10 line drawing which could be made into meaningful picture of different objects. The subject is asked to make a picture which no one else in the group will be able to think of. He is also asked to give an interesting and suitable title to each picture he makes.

3. **Triangles and Ellipses activity (Activity-III)**

This activity the subject is provided with seven triangles and seven ellipses and he/she is required to construct meaningful pictures based on the two given stimuli. He is also asked to give an interesting and suitable title to each picture he makes.

Scoring Procedure

The following points have to be kept in mind while scoring the test:

Elaboration Scoring

Elaboration is represented by a person's ability to add pertinent details to the minimum and primary response to the stimulus figure. The minimum and the primary response to the stimulus figure is that response which gives essential meaning to the picture. The response title often tells what exactly the testee is trying to make. However, responses which can be reasonably interpreted and identified should be scored. In some cases, the test booklets will have to be turned around or rotated in order to know exactly what the testee has drawn. Sometimes the response represents some abstract idea instead of a thing and so it has got to be scored.

Some difference of opinion may arise in determining what would be the minimum and primary response especially in the case of human figural, birds, animals and several other objects. It is recommended, as a general rule, that the criterion for identifying the response: in other word, only those parts will be considered most essential without which a figure cannot be identified what it is meant to be. Thus in a human head, eyes and indication of nose and mouth will be enough to identify it as head and so all other parts like hair, ear, neck, etc. should be considered as elaboration.

It is important for the scorer to see that the primary and minimum response is meaningful and to the stimulus before it is scored. If the figure is not relevant and meaningful, it should be ignored. The total elaboration score will consist of a score of one for the primary and minimum response plus one score each for all the additional new ideas. An idea once scored in a picture should not be scored again in the same picture.

Originality Scoring

Originality is represented by uncommonness of a given response. Response given only by less five percent of the group are considered and are given differential weights. The weights have to be determined on the basis of the following scheme. If a response has been given by-

i. 0.1% to 1.0% of the testes, the response will get an originality weights of 5.
ii. If a response has been given by 1.1% to 2.0% of the testes, the response will get an originality weights of 4.
iii. If a response has been given by 2.1% to 3.0% of the testes, the response will get an originality weights of 3.
iv. If a response has been given by 3.1% to 4.0% of the testes, the response will get an originality weights of 2.
v. If a response has been given by 4.1% to 5.0% of the testes, the response will get an originality weights of 1.
vi. Response given by more of the testes, the response will get an originality weights of zero (0).

Table 3.2-Showing Scoring Procedure of Originality

Percentage of response	**Weighty assigned i.e., marks given**
o.1% to 1.0%	5
1.1% to 2.0%	4
2.1% to 3.0%	3
3.1% to 4%	2
4.1% to 5%	1
Beyond 5%	0

In the scoring guide, the originality weights have been given for all the originality responses and should be used as such. The score may be directly entered on the answer sheet by closely following the scoring guide.

3.7.0 Procedure of Data Collection

After a careful study of operations involved in this study, the researcher used a standardized scale namely 'NVTCT-M' developed by Dr. Baqer Mehdi for collecting data. For obtaining data he meets the Headmasters of each school and after getting the necessary permissions, he went to the class rooms of class V, VI, VII and class VIII. He collected the test booklets from them after 35-40 minutes.

3.8.0 Techniques Used for Date Analysis

Descriptive and Inferential statistics were used in the present study through SPSS.

1. Frequency
2. Mean
3. Standard Deviation (SD)
4. Percentage Analysis
5. T-Test
6. F-Test or ANOVA

Figure No. – 3.8.1 Showing Analysis Design of the monolingual elementary level students regarding the dimension of Elaboration, dimension of Originality and Creativity as a whole.

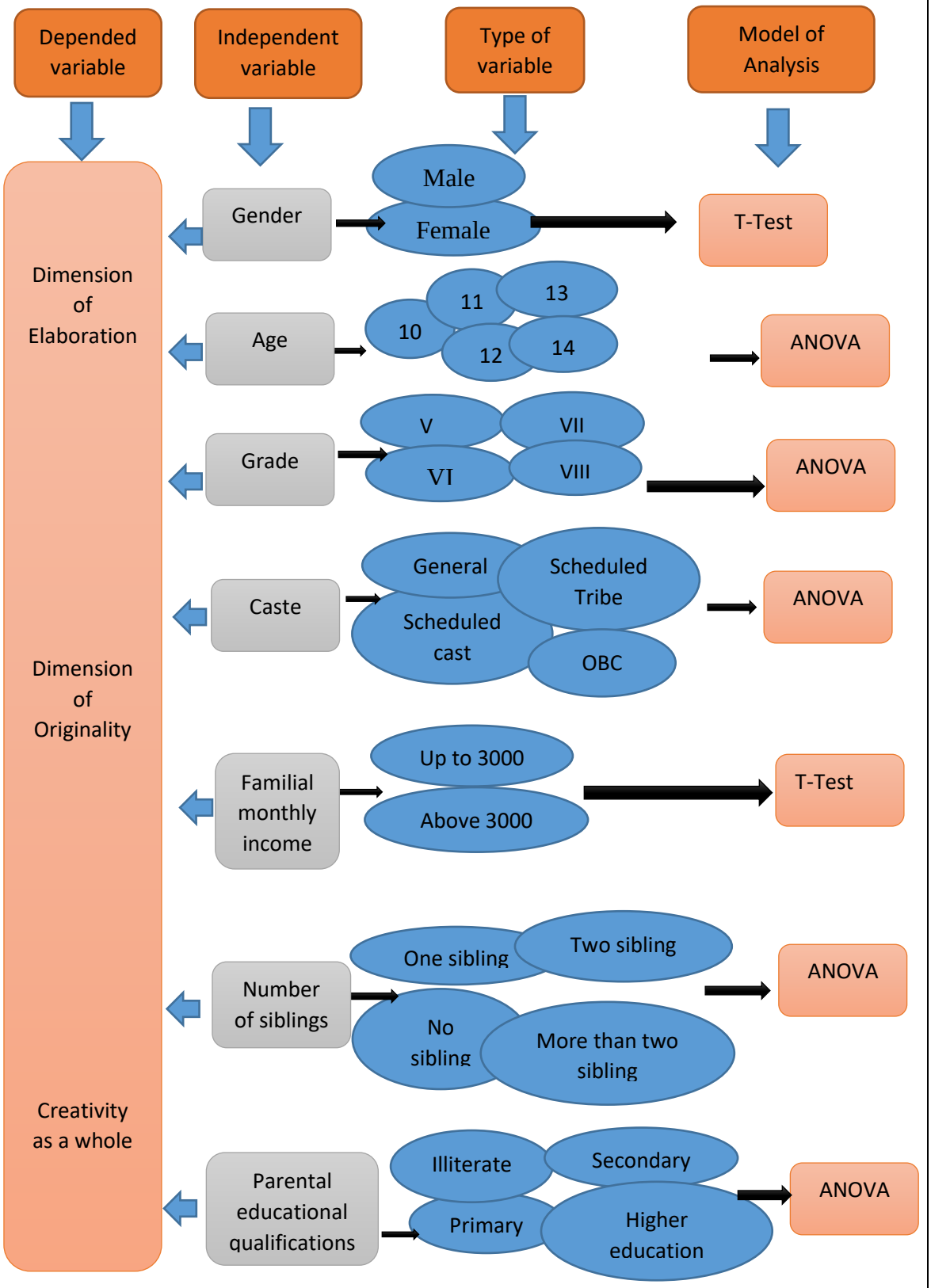


Figure No. – 3.8.2 Showing Analysis Design of the Bilingual elementary level students regarding the dimension of Elaboration, dimension of Originality and Creativity as a whole.

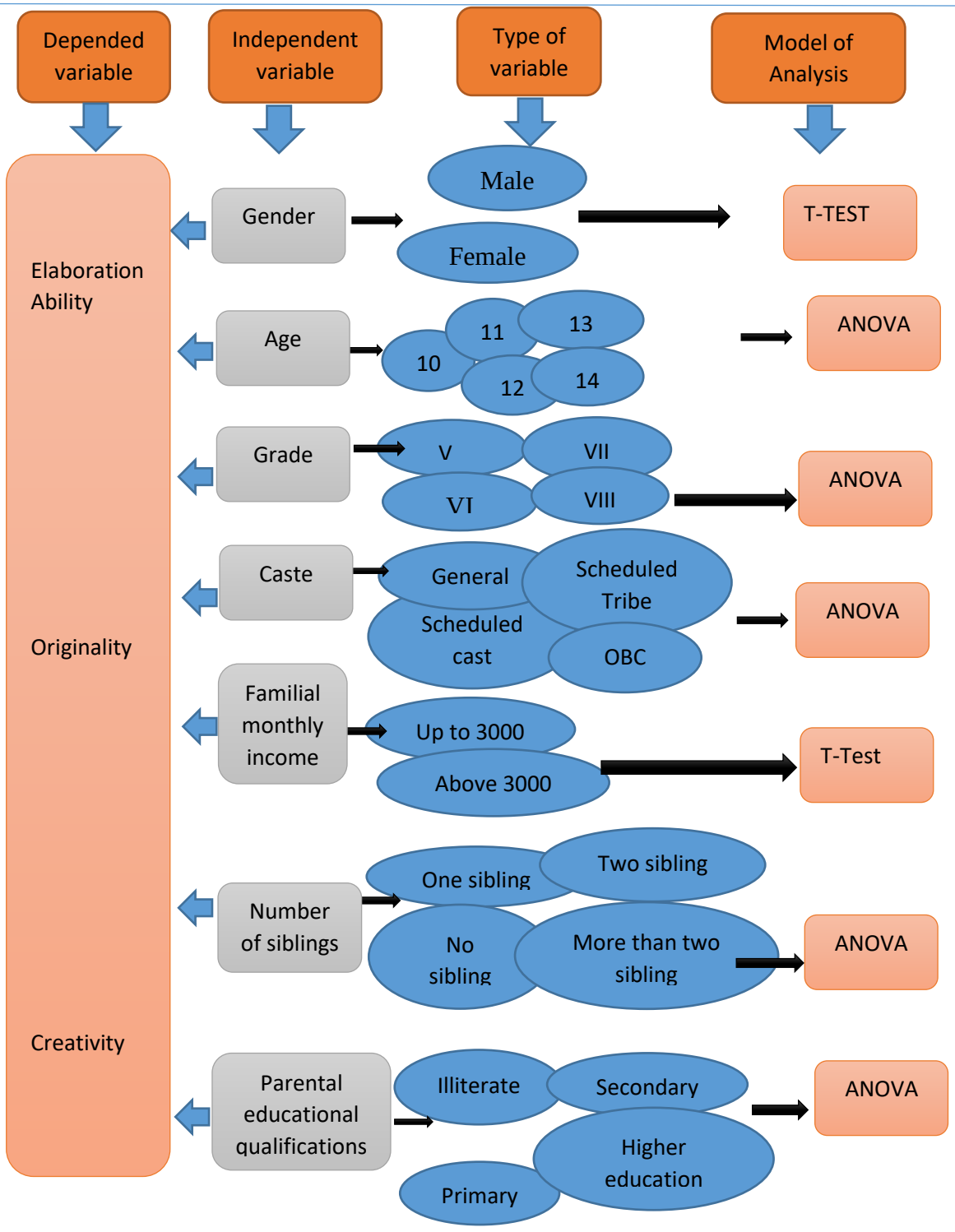
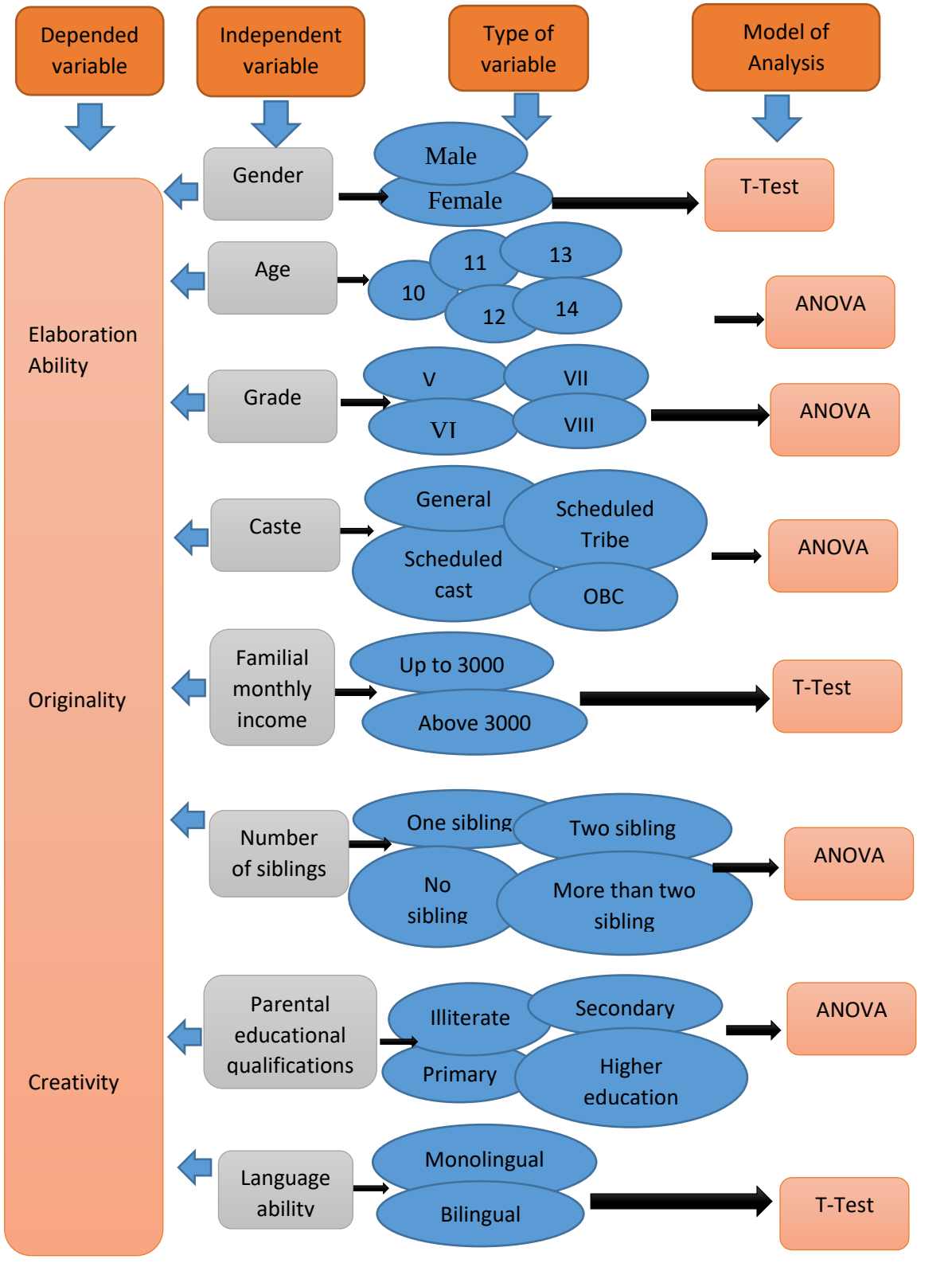


Figure No. – 3.8.3 Showing Analysis Design of the total elementary level students regarding the dimension of Elaboration, dimension of Originality and Creativity as a whole.



CHAPTER- IV

ANALYSIS AND INTERPRETATION OF DATA

4.1.0 Introduction

This chapter deals with the presentation, analysis and interpretation of the collected data. It involves the use of statistical techniques for the analysis of the obtained data. This chapter is the backbone of the total studies. In any kind of study data analysis and interpretation plays a vital role on the basis of which the total study results of finding can be formulated. Therefor without this portion the study works are always incomplete.

4.2.0 Hypotheses wise Analysis and Interpretation of Data

4.2.1 To analyse elaboration dimension of creativity, originality dimension of creativity and creativity as a whole among monolingual elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.

Testing Ho1: There is no significant difference between male and female monolingual elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole.

Table 4.2.1.1 (A) Gender wise Descriptive Statistics and T-Test regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole among mono-lingual tea garden elementary school students.

Dimension of creativity	Gender of the student	N	M	SD	SE,M	Mean Diff.	df	T	Sig. (2-tailed) *p*
Elaboration Ability	Male	53	40.53	10.063	1.382	5.600	107	3.777	.000
	Female	56	34.93	4.548	.608				
Originality	Male	53	2.2706	.89367	.12275	.67363	107	3.840	.000
	Female	56	1.5970	.93554	.12502				
Creativity	Male	53	42.7989	10.10350	1.38782	6.2733 6	107	4.190	.000
	Female	56	36.5256	4.71450	.63000				

Interpretation:

This T test indicate that the p-value (.000) is lower than 0.05 level of significance. So hypothesis is not accepted. The mean of the male elaboration dimension of creativity is 40.53 and mean of Female elaboration dimension of creativity is 34.93. Hence, from it can be conclude that Male is greater than female in elaboration dimension of creativity.

This T test indicate that the p-value (.000) is lower than 0.05 level of significance. So hypothesis is not accepted. The mean of the male originality dimension of creativity is 2.2706 and mean of Female originality dimension of creativity is 1.5970. Hence, from it can be conclude that Male is greater than female in originality dimension of creativity.

This T test indicate that the p-value (.000) is lower than 0.05 level of significance. So hypothesis is not accepted. The mean of the male creativity as a whole is 42.7989 and mean of Female creativity as a whole is 36.5256. Hence, from it can be conclude that Male is greater than female in creativity as a whole.

Testing Ho2: There is no significant influence of age of monolingual elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole.

Table 4.2.1.2 (A) Age wise Descriptive Statistics regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole among mono-lingual tea garden elementary school students.

Domains of Creativity	Age	N	Mean	Std. Deviation	Std. Error
Elaboration Ability	10	36	39.47	9.148	1.525
	11	28	35.36	6.111	1.155
	12	28	38.00	8.637	1.632
	13	11	35.73	4.563	1.376
	14	5	42.00	11.790	5.273
	Total	108	37.76	8.157	.785
Originality	10	36	1.4390	.52012	.08669
	11	28	1.9440	1.04398	.19729
	12	28	2.3280	1.05965	.20025
	13	11	1.8930	.90481	.27281
	14	5	2.7442	1.07828	.48222
	Total	108	1.9071	.95919	.09230
Creativity	10	36	40.9112	9.30875	1.55146
	11	28	37.3011	6.52267	1.23267
	12	28	40.3280	8.87826	1.67783
	13	11	37.6203	5.02427	1.51488
	14	5	44.7442	11.66267	5.21570
	Total	108	39.6663	8.37551	.80593

Table 4.2.1.2 (B) Representing one-way ANOVA results for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole among mono-lingual tea garden elementary school students with relation to their age.

Dimension of creativity		Sum of Squares	df	Mean Square	F	Sig. *p*
Elaboration Ability	Between Groups	404.158	4	101.040	1.550	.193
	Within Groups	6715.583	103	65.200		
	Total	7119.741	107			
Originality	Between Groups	16.395	4	4.099	5.145	.001
	Within Groups	82.050	103	.797		
	Total	98.444	107			
Creativity	Between Groups	399.658	4	99.914	1.448	.224
	Within Groups	7106.309	103	68.993		
	Total	7505.967	107			

Interpretation

One-way ANOVA showing that the p-value (0.193) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of age (ten, eleven, twelve, thirteen and fourteen) on elaboration dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.001) is lower than 0.05 level of significant. So the null hypothesis is not accepted. The mean of the students of age 10, age 11, age 12, age 13 and age 14 are 1.4390, 1.9440, 2.3280, 1.8930, and 2.7442 respectively. Therefore, it has been observed that the age 14 students is greater than the other age group students in originality dimension of creativity.

One-way ANOVA showing that the p-value (0.224) is greater than 0.05 level of significance. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of age (ten, eleven, twelve, thirteen and fourteen) on creativity as a whole of tea garden elementary school students.

Table 4.2.1.2 (C): Age wise multiple comparison of Originality dimension of creativity.					
Dependent Variable	(I) Age of the students	(J) Age of the students	Mean Difference (I-J)	Std. Error	Sig. *p*
Originality	10	11	-.50502*	.22490	.027
		12	-.88906*	.22490	.000
		13	-.45406	.30748	.143
		14	-1.30525*	.42597	.003
	11	12	-.38404	.23854	.110
		13	.05096	.31760	.873
		14	-.80023	.43332	.068
	12	13	.43500	.31760	.174
		14	-.41619	.43332	.339
	13	14	-.85119	.48139	.080

Interpretation

A multiple comparison in LSD test has been done here, where it has been observed there is a significant relation age10 students with age11 students in originality dimension of creativity. The mean of age10 students 1.4390 and for age11 students 1.9440. Hence the mean difference between age10 and age12 students 0.50502 but the LSD test for significance showing the groups significantly because the p-value (.000) is lower than 0.05 level of significance. Therefore, age11 students more originality dimension of creativity than age10 students. There is a significant relation age10 students with age 12 students in originality dimension of creativity. The mean of age10 students 1.4390 and for age twelve 2.3280. Hence the mean difference between age10 and age12 students 0.88906 but the LSD test for significance showing the groups significantly because the p-value (.000) is lower than 0.05 level of significance. Therefore, age12 students more originality dimension of creativity than age10 students. There is also a significant relation of age10 students with age14 students in originality. The mean of age10 students 1.4390 and for age14 students 2.7442. Hence the mean difference between ages10 students and 14 students 1.30525 but the LSD test for significance showing the groups significantly because the p-value (.003) is lower than 0.05 level of significance. Therefore, age14 students more originality dimension of creativity than age10 students.

Therefore, it has been observed that the age14 students is greater than the other age group students in originality dimension of creativity

Testing Ho3: There is no significant difference among grade five, grade six, grade seven and grade eight monolingual tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole.

Table 4.2.1.3 (A): Grade wise Descriptive Statistics regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole among mono-lingual tea garden elementary school students.

Dimension of creativity	Grade	N	Mean	Std. Deviation	Std. Error
Elaboration Ability	Grade-V	31	37.35	7.842	1.409
	Grade-VI	29	37.14	8.851	1.644
	Grade-VII	28	37.79	8.234	1.556
	Grade-VIII	21	38.62	8.237	1.797
	Total	109	37.65	8.197	.785
Originality	Grade-V	31	1.3792	.54884	.09858
	Grade-VI	29	1.6378	.84253	.15645
	Grade-VII	28	2.5656	1.00103	.18918
	Grade-VIII	21	2.2706	1.01064	.22054
	Total	109	1.9245	.97194	.09309
Creativity	Grade-V	31	38.7340	7.93290	1.42479
	Grade-VI	29	38.7758	9.13675	1.69665
	Grade-VII	28	40.3514	8.09861	1.53049
	Grade-VIII	21	40.8897	8.69602	1.89763
	Total	109	39.5759	8.38996	.80361

Table 4.2.1.3 (B): Representing one-way ANOVA results for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of tea garden elementary school students with relation to their Grade.

Domains of Creativity		Sum of Squares	df	Mean Square	F	Sig. *p*
Elaboration Ability	Between Groups	30.541	3	10.180	.148	.931
	Within Groups	7226.212	105	68.821		
	Total	7256.752	108			
Originality	Between Groups	25.627	3	8.542	11.741	.000
	Within Groups	76.396	105	.728		
	Total	102.024	108			
Creativity	Between Groups	93.622	3	31.207	.436	.727
	Within Groups	7508.647	105	71.511		
	Total	7602.268	108			

Interpretation

One-way ANOVA showing that the p-value (0.931) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of Grade (V, VI, VII and VIII) on elaboration dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.000) is lower than 0.05 level of significant. So the null hypothesis is not accepted. The mean of the students of Grade-V, Grade-VI, Grade-VII and Grade-VIII are 1.3792, 1.6378, 2.5656 and 2.2706 respectively. Therefore, it has been observed that the Grade-VII students is greater than the other Grade students in originality dimension of creativity.

One-way ANOVA showing that the p-value (0.727) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of Grade (V, VI, VII and VIII) on creativity as a whole of tea garden elementary school students.

Table 4.2.1.3 (C): Grade wise multiple comparison of Originality dimension of creativity.					
Dependent Variable	(I) Grade of Schooling	(J) Grade of Schooling	Mean Difference (I-J)	Std. Error	Sig. *p*
Originality	Grade-V	Grade-VI	-.25864	.22036	.243
		Grade-VII	-1.18646*	.22239	.000
		Grade-VIII	-.89144*	.24108	.000
	Grade-VI	Grade-VII	-.92782*	.22600	.000
		Grade-VIII	-.63280*	.24441	.011
	Grade-VII	Grade-VIII	.29501	.24624	.234

Interpretation

A multiple comparison in LSD test has been done here, where it has been observed that there is a significant relation grade V students with grade VII students in originality dimension of creativity. The mean of the grade V and grade VII students are 1.3792 and 2.5656 respectively. Hence the mean difference between grade V and grade VII students 1.18646 but the LSD test for significance showing the groups significantly because the p-value (.000) is lower than 0.05 level of significance. Therefore grade VII students more originality than grade V students. There is also a significant relation of grade V students with grade VIII students in originality dimension of creativity. The mean of the grade V students and grade VIII students are 1.3792 and 2.2706 respectively. Hence the mean difference between grade V and grade VIII students 0.89144 but the LSD test for significance showing the groups significantly because the p-value (.000) is lower than 0.05 level of significance. Hence, grade VIII students have secured more originality dimension of creativity than the grade V students.

A signification relation of grade VI students with grade VII students has also been spotted in originality dimension of creativity. The mean of the grade VI students and grade VII students are 1.6378 and 2.5656 respectively. Hence the mean difference between grade VI students and grade VII students 0.92782 but the LSD test for significance showing the groups significantly because the p-value (.000) is lower than 0.05 level of significance. Therefore, grade VII students more originality dimension of creativity than grade VI students. The mean of the grade VI students and grade VIII students are 1.6378 and 2.5656 respectively. Hence the mean difference between grade VI and grade VIII students 0.63280 but the LSD test for significance showing the groups significantly because the p-value

(.000) is lower than 0.05 level of significance. Hence grade VIII students have secured more originality dimension of creativity than the grade VI students.

Therefore, it has been observed that the grade VII students are greater than the other grade group students in originality dimension of creativity.

Testing Ho4: There is no significant difference among general, scheduled caste, scheduled tribes and other backward classes' monolingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole.

Table 4.2.1.4 (A) Caste wise Descriptive Statistics regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole among mono-lingual tea garden elementary school students.

Dimension of creativity		N	Mean	Std. Deviation	Std. Error
Elaboration Ability	General	10	38.60	7.183	2.272
	Scheduled Caste	73	37.10	8.117	.950
	Scheduled Tribe	4	35.00	2.309	1.155
	Other Backward Classes	22	39.55	9.495	2.024
	Total	109	37.65	8.197	.785
Originality	General	10	2.1565	1.02370	.32372
	Scheduled Caste	73	1.9633	.96199	.11259
	Scheduled Tribe	4	1.3950	.63528	.31764
	Other Backward Classes	22	1.7866	1.03653	.22099
	Total	109	1.9245	.97194	.09309
Creativity	General	10	40.7565	7.24970	2.29256
	Scheduled Caste	73	39.0592	8.25762	.96648
	Scheduled Tribe	4	36.3950	2.62177	1.31089
	Other Backward Classes	22	41.3321	9.89785	2.11023
	Total	109	39.5759	8.38996	.80361

Table 4.2.1.4 (B): Representing one-way ANOVA results for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole among mono-lingual tea garden elementary school students with relation to their Caste.

Dimension of creativity		Sum of Squares	df	Mean Square	F	Sig. *p*
Elaboration Ability	Between Groups	138.569	3	46.190	.681	.565
	Within Groups	7118.183	105	67.792		
	Total	7256.752	108			
Originality	Between Groups	2.188	3	.729	.767	.515
	Within Groups	99.835	105	.951		
	Total	102.024	108			
Creativity	Between Groups	141.750	3	47.250	.665	.575
	Within Groups	7460.519	105	71.053		
	Total	7602.268	108			

Interpretation

One-way ANOVA showing that the p-value (0.565) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of caste (general, scheduled caste, and Other Backward Classes) on elaboration dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.515) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of caste (general, scheduled caste, and Other Backward Classes) on originality dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.575) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of caste (general, scheduled caste, and Other Backward Classes) on creativity as a whole of tea garden elementary school students.

Testing Ho5: There is no significant influence of familial monthly income of monolingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Table 4.2.1.5 (A) Familial monthly income wise Descriptive Statistics and T-Test regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole among mono-lingual tea garden elementary school students.									
Dimension of creativity	Familial Monthly Income	N	M	SD	SE,M	Mean Diff.	df	T	Sig. (2-tailed) *p*
Elaboration Ability	Up to 3000	60	36.75	7.912	1.021	-2.005	107	-1.274	.205
	Above 3000	49	38.76	8.484	1.212				
Originality	Up to 3000	60	1.9853	1.02840	.13277	.13515	107	.721	.473
	Above 3000	49	1.8501	.90291	.12899				
Creativity	Up to 3000	60	38.7353	8.14337	1.05130	-1.86995	107	-1.159	.249
	Above 3000	49	40.6052	8.65472	1.23639				

Interpretation

T-test showing that the p-value (0.205) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of familial monthly income (up to 3000 and above 3000) on elaboration dimension of creativity of tea garden elementary school students.

T-test showing that the p-value (0.473) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of familial monthly income (up to 3000 and above 3000) on originality dimension of creativity of tea garden elementary school students.

T-test showing that the p-value (0.249) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of familial monthly income (up to 3000 and above 3000) on creativity as a whole of tea garden elementary school students.

Testing Ho6: There is no significant influence of number of siblings of monolingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole.

Table 4.2.1.6 (A) Number of sibling wise Descriptive Statistics regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole among mono-lingual tea garden elementary school students.

Dimension of creativity	Number of sibling	N	Mean	Std. Deviation	Std. Error
Elaboration Ability	No sibling	13	36.62	4.234	1.174
	One Sibling	56	38.64	8.706	1.163
	Two Siblings	25	37.84	9.463	1.893
	More than Two Siblings	15	34.53	6.022	1.555
	Total	109	37.65	8.197	.785
Originality	No sibling	13	1.7027	.89622	.24857
	One Sibling	56	1.9464	.90214	.12055
	Two Siblings	25	1.9699	1.12743	.22549
	More than Two Siblings	15	1.9594	1.08168	.27929
	Total	109	1.9245	.97194	.09309
Creativity	No sibling	13	38.3181	4.59834	1.27535
	One Sibling	56	40.5893	8.89489	1.18863
	Two Siblings	25	39.8099	9.55844	1.91169
	More than Two Siblings	15	36.4927	6.44878	1.66507
	Total	109	39.5759	8.38996	.80361

Table 4.2.1.6 (B): Representing one-way ANOVA results for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole among mono-lingual tea garden elementary school students with relation to their Number of sibling.

Dimension of creativity		Sum of Squares	df	Mean Square	F	Sig. *p*
Elaboration Ability	Between Groups	215.725	3	71.908	1.072	.364
	Within Groups	7041.027	105	67.057		
	Total	7256.752	108			
Originality	Between Groups	.736	3	.245	.254	.858
	Within Groups	101.287	105	.965		
	Total	102.024	108			
Creativity	Between Groups	222.036	3	74.012	1.053	.372
	Within Groups	7380.232	105	70.288		
	Total	7602.268	108			

Interpretation:

One-way ANOVA showing that the p-value (0.364) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of number of siblings (no sibling, one sibling, two sibling and more than two sibling) on elaboration dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.858) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of number of siblings (no sibling, one sibling, two sibling and more than two sibling) on originality dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.372) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of number of siblings (no sibling, one sibling, two sibling and more than two sibling) on creativity as a whole of tea garden elementary school students.

Testing Ho7: There is no significant influence of parental educational qualification of monolingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole.

Table 4.2.1.7 (A): Parental educational qualification wise Descriptive Statistics regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole among mono-lingual tea garden elementary school students.

Dimension of creativity	Parental educational qualification	N	Mean	Std. Deviation	Std. Error
Elaboration Ability	Illiterate	8	29.50	2.563	.906
	Primary	58	37.47	7.937	1.042
	Elementary	39	39.36	8.311	1.331
	Higher Education	4	40.00	10.424	5.212
	Total	109	37.65	8.197	.785
Originality	Illiterate	8	1.0161	.48221	.17049
	Primary	58	1.9776	.99504	.13066
	Elementary	39	1.9147	.89702	.14364
	Higher Education	4	3.0685	.67823	.33911
	Total	109	1.9245	.97194	.09309
Creativity	Illiterate	8	30.5161	2.67314	.94510
	Primary	58	39.4431	7.85880	1.03191
	Elementary	39	41.2736	8.68387	1.39053
	Higher Education	4	43.0685	10.76202	5.38101
	Total	109	39.5759	8.38996	.80361

Table 4.2.1.7 (B): Representing one-way ANOVA results for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of mono-lingual tea garden elementary school students with relation to their Parental educational qualification.

Dimension of creativity		Sum of Squares	df	Mean Square	F	Sig. *p*
Elaboration Ability	Between Groups	669.347	3	223.116	3.556	.017
	Within Groups	6587.405	105	62.737		
	Total	7256.752	108			
Originality	Between Groups	12.003	3	4.001	4.667	.004
	Within Groups	90.020	105	.857		
	Total	102.024	108			
Creativity	Between Groups	818.862	3	272.954	4.225	.007
	Within Groups	6783.406	105	64.604		
	Total	7602.268	108			

Interpretation:

One-way ANOVA showing that the p-value (0.017) is greater than 0.05 level of significant. So the null hypothesis is not accepted**.** The mean of the illiterate, primary education, elementary education and higher education of the parents are 29.50, 37.47, 39.36 and 40.00 respectively. Therefore, it has been observed that the parents, who have higher education is greater than the other parents group in elaboration dimension of creativity.

One-way ANOVA showing that the p-value (0.004) is lower than 0.05 level of significant. So the null hypothesis is not accepted. The mean of the illiterate, primary education, elementary education and higher education of the parents are 1.0161, 1.9776, 1.9147 and 3.0685 respectively. Therefore, it has been observed that the parents, who have higher education is greater than the other parents group in originality dimension of creativity.

One-way ANOVA showing that the p-value (0.007) is greater than 0.05 level of significant. So the null hypothesis is not accepted. The mean of the illiterate, primary education, elementary education and higher education of the parents are 30.5161, 39.4431, 41.2736 and 43.0685 respectively. Therefore, it has been observed that the parents, who have higher education is greater than the other parents group in creativity as a whole.

Table 4.2.1.7 (C): Grade wise multiple comparison of Originality dimension of creativity.					
Dependent Variable	(I) Parent's Educational Qualification	(J) Parent's Educational Qualification	Mean Difference (I-J)	Std. Error	*Sig. p*
Elaboration Ability	Illiterate	Primary	-7.966*	2.987	.009
		Elementary	-9.859*	3.074	.002
		Higher Education	-10.500*	4.850	.033
	Primary	Elementary	-1.893	1.640	.251
		Higher Education	-2.534	4.095	.537
	Elementary	Higher Education	-.641	4.158	.878
Originality	Illiterate	Primary	-.96145*	.34921	.007
		Elementary	-.89854*	.35937	.014
		Higher Education	-2.05237*	.56701	.000
	Primary	Elementary	.06291	.19174	.743
		Higher Education	-1.09092*	.47866	.025
	Elementary	Higher Education	-1.15384*	.48612	.019
Creativity	Illiterate	Primary	-8.92697*	3.03139	.004
		Elementary	-10.75751*	3.11961	.001
		Higher Education	-12.55237*	4.92204	.012
	Primary	Elementary	-1.83054	1.66444	.274
		Higher Education	-3.62541	4.15510	.385
	Elementary	Higher Education	-1.79486	4.21989	.671

Interpretation:

A multiple comparison in LSD test has been done here, where it has been observed that there is a significant relation illiterate of the parents with primary education of the parents in elaboration. The mean of the illiterate of the parents and primary education of the parents are 29.50 and 37.47 respectively. Hence the mean difference illiterate of the parents between and primary of the parents 7.966 but the LSD test for significance showing the groups significantly because the p-value (.009) is lower than 0.05 level of significance. Hence primary education of the parents have secured more elaboration dimension of creativity than the illiterate of the parents. There is a significant relation illiterate of the parents with elementary education of the parents in elaboration dimension of creativity. The mean of the illiterate of the parents and elementary of the parents are 29.50 and 39.36 respectively. Hence the mean difference illiterate of the parents between and elementary of the parents 9.859 but the LSD test for significance showing the groups significantly because the p-value (.002) is lower than 0.05 level of significance. Hence elementary education of

the parents have secured more elaboration dimension of creativity than the illiterate of the parents. There is a significant relation illiterate of the parents with higher education of the parents in elaboration dimension of creativity. The mean of the illiterate of the parents and elementary education of the parents are 29.50 and 40.00 respectively. Hence the mean difference illiterate of the parents between and elementary of the parents 10.500 but the LSD test for significance showing the groups significantly because the p-value (.033) is lower than 0.05 level of significance. Hence higher education of the parents have secured more elaboration dimension of creativity than the illiterate of the parents.

There is a significant relation illiterate of the parents with primary education of the parents in originality dimension of creativity. The mean of the illiterate of the parents and primary education of the parents are 1.0161 and 1.9776 respectively. Hence the mean difference illiterate of the parents between and primary of the parents 0.96145 but the LSD test for significance showing the groups significantly because the p-value (.007) is lower than 0.05 level of significance. Hence primary of the parents have secured more originality dimension of creativity than the illiterate of the parents. There is a significant relation illiterate of the parents with elementary education of the parents in originality. The mean of the illiterate of the parents and elementary of the parents are 1.0161 and 1.9147 respectively. Hence the mean difference illiterate of the parents between and elementary education of the parents 0. 89854 but the LSD test for significance showing the groups significantly because the p-value (.014) is lower than 0.05 level of significance. Hence elementary education of the parents have secured more originality than the illiterate of the parents. There is a significant relation illiterate of the parents with higher education of the parents in originality dimension of creativity. The mean of the illiterate of the parents and elementary education of the parents are 1.0161 and 3.0685 respectively. Hence the mean difference illiterate of the parents between and elementary of the parents 2.05237 but the LSD test for significance showing the groups significantly because the p-value (.000) is lower than 0.05 level of significance. Hence higher education of the parents have secured more originality dimension of creativity than the illiterate of the parents. There is a significant relation illiterate of the parents with higher education of the parents in originality dimension of creativity. The mean of the illiterate of the parents and elementary education of the parents are 1.9147 and 3.0685 respectively. Hence the mean difference illiterate of the parents between and elementary of the parents 1.15384 but the LSD test for significance showing the groups significantly because the p-value (.019) is lower than 0.05 level of significance.

Hence higher education of the parents have secured more originality dimension of creativity than the illiterate of the parents.

There is a significant relation illiterate of the parents with primary education of the parents in creativity as a whole. The mean of the illiterate of the parents and primary education of the parents are 30.5161 and 39.4431 respectively. Hence the mean difference illiterate of the parents between and primary of the parents 8.92697but the LSD test for significance showing the groups significantly because the p-value (.004) is lower than 0.05 level of significance. Hence primary of the parents have secured more creativity as a whole than the illiterate of the parents. There is a significant relation illiterate of the parents with elementary education of the parents in creativity as a whole. The mean of the illiterate of the parents and elementary education of the parents are 30.5161 and 41.2736 respectively. Hence the mean difference illiterate of the parents between and elementary of the parents 10.75751 but the LSD test for significance showing the groups significantly because the p-value (.001) is lower than 0.05 level of significance. Hence elementary of the parents have secured more creativity as a whole than the illiterate of the parents. There is a significant relation illiterate of the parents with higher education of the parents in creativity as a whole. The mean of the illiterate of the parents and elementary education of the parents are 30.5161 and 43.0685 respectively. Hence the mean difference illiterate of the parents between and elementary education of the parents 12.55237 but the LSD test for significance showing the groups significantly because the p-value (.012) is lower than 0.05 level of significance. Hence higher education of the parents have secured more creativity as a whole than the illiterate of the parents.

Therefore, it has been observed that the higher education of the parents is greater than the other education group parents in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole.

4.2.2 To analyse elaboration dimension of creativity, originality dimension of creativity and creativity as a whole among bi-lingual elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.

Testing Ho8: There is no significant difference between male and female bi-lingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Table 4.2.2.1 (A) Gender wise Descriptive Statistics and T-Test regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of bi-lingual tea garden elementary school students.

Dimension of creativity	Gender of the student	N	M	SD	SE M	Mean Diff.	df	T	Sig. (2-tailed)
Elaboration Ability	Male	47	42.94	8.676	1.266	7.732	89	4.770	.000
	Female	44	35.20	6.561	.989				
Originality	Male	47	2.1141	.80889	.11799	.05493	89	0.287	.775
	Female	44	2.0592	1.00984	.15224				
Creativity	Male	47	45.0503	8.57982	1.25150	7.78655	89	4.851	.000
	Female	44	37.2638	6.51572	.98228				

Interpretation

This T test indicate that the p-value (.000) is lower than 0.05 level of significance. So hypothesis is not accepted. The mean of the male elaboration dimension of creativity is 42.94 and mean of Female elaboration dimension of creativity is 35.20. Hence, from it can be conclude that Male is greater than female in elaboration dimension of creativity.

This T test indicate that the p-value (.775) is greater than 0.05 level of significance. So hypothesis is accepted. Hence it is concluded that there is no significant influence of male and female students on originality dimension of creativity of tea garden elementary school students.

This T test indicate that the p-value (.000) is lower than 0.05 level of significance. So hypothesis is not accepted. The mean of the male creativity as a whole is 45.0503 and mean of Female creativity as a whole is 37.2638. Hence, from it can be conclude that Male is greater than female in creativity as a whole.

Testing Ho9: There is no significant influence of age of bi-lingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole

Table 4.2.2.2 (A) Age wise Descriptive Statistics regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of bi-lingual tea garden elementary school students.

Dimension of creativity	Age	N	Mean	Std. Deviation	Std. Error
Elaboration Ability	10	16	42.19	12.523	3.131
	11	17	39.94	8.785	2.131
	12	21	38.14	6.271	1.368
	13	25	39.04	8.279	1.656
	14	9	36.78	5.585	1.862
	Total	88	39.34	8.641	.921
Originality	10	16	1.5345	.60987	.15247
	11	17	1.8208	.63505	.15402
	12	21	2.3351	1.03981	.22691
	13	25	2.2277	.97063	.19413
	14	9	2.2347	.55239	.18413
	Total	88	2.0494	.87531	.09331
Creativity	10	16	43.7220	12.77629	3.19407
	11	17	41.7620	8.67716	2.10452
	12	21	40.4780	6.21816	1.35691
	13	25	41.2677	8.23885	1.64777
	14	9	39.0125	5.70744	1.90248
	Total	88	41.3903	8.62652	.91959

Table 4.2.2.2 (B): Representing one-way ANOVA results for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of bi-lingual tea garden elementary school students with relation to their Age.

Dimension of creativity		Sum of Squares	df	Mean Square	F	Sig. *p*
Elaboration Ability	Between Groups	227.307	4	56.827	.752	.559
	Within Groups	6268.466	83	75.524		
	Total	6495.773	87			
Originality	Between Groups	7.949	4	1.987	2.810	.031
	Within Groups	58.708	83	.707		
	Total	66.657	87			
Creativity	Between Groups	158.073	4	39.518	.519	.722
	Within Groups	6316.191	83	76.099		
	Total	6474.264	87			

Interpretation:

One-way ANOVA showing that the p-value (0.559) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of age (ten, eleven, twelve, thirteen and fourteen) on elaboration dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.031) is lower than 0.05 level of significant. So the null hypothesis is not accepted. The mean of the students of age 10, age 11, age 12, age 13 and age 14 are 1.5345, 1.8208, 2.3351, 2.2277, and 2.2347 respectively. Therefore, it has been observed that the age12 students is greater than the other age group students in originality dimension of creativity.

One-way ANOVA showing that the p-value (0.722) is greater than 0.05 level of significance. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of age (ten, eleven, twelve, thirteen and fourteen) on creativity as a whole of tea garden elementary school students.

Table 4.2.2.2 (C): Age wise multiple comparison of Originality dimension of creativity.					
Dependent Variable	(I) Age of the students	(J) Age of the students	Mean Diff. (I-J)	Std. Error	Sig. *p*
Originality	10	11	-.28639	.29294	.331
		12	-.80068*	.27909	.005
		13	-.69325*	.26926	.012
		14	-.70029*	.35043	.049
	11	12	-.51429	.27439	.064
		13	-.40686	.26439	.128
		14	-.41390	.34670	.236
	12	13	.10743	.24895	.667
		14	.10039	.33507	.765
	13	14	-.00703	.32693	.983

Interpretation

A multiple comparison in LSD test has been done here, where it has been observed that there is a significant relation age10 students with age 12 students in originality dimension of creativity. The mean of age10 students 1.5345 and for age twelve 2.3351. Hence the mean difference between age10 and age12 students 0.80068 but the LSD test for significance showing the groups significantly because the p-value (.005) is lower than 0.05 level of significance. Therefore age12 students more originality dimension of creativity than age10 students. There is also a significant relation of age10 students with age14 students in originality dimension of creativity. The mean of age10 students 1.5345 and for age14 students 2.2277. Hence the mean difference between age10 students and age13 students 0.69325 but the LSD test for significance showing the groups significantly because the p-value (.012) is lower than 0.05 level of significance. Therefore age13 students more originality dimension of creativity than age10 students. The mean of age10 students 1.5345 and for age14 students 2.2347. Hence the mean difference between ages10 students and 14 students 0.70029 but the LSD test for significance showing the groups significantly because the p-value (.049) is lower than 0.05 level of significance. Therefore age14 students more originality dimension of creativity than age10 students.

Therefore, it has been observed that the age12 students is greater than the other age group students in originality dimension of creativity

Testing Ho10: There is no significant difference among grade five, grade six, grade seven and grade eight bi-lingual tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole.

Table 4.2.2.3 (A): Grade wise Descriptive Statistics regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of bi-lingual tea garden elementary school students.

Dimension of creativity	Grade	N	Mean	Std. Deviation	Std. Error
Elaboration Ability	Grade-V	19	41.74	11.411	2.618
	Grade-VI	21	40.81	10.221	2.230
	Grade-VII	22	37.59	5.474	1.167
	Grade-VIII	29	37.59	6.817	1.266
	Total	91	39.20	8.610	.903
Originality	Grade-V	19	1.4306	.72683	.16675
	Grade-VI	21	1.8150	.75597	.16497
	Grade-VII	22	2.3884	.84940	.18109
	Grade-VIII	29	2.4872	.87721	.16289
	Total	91	2.0876	.90687	.09507
Creativity	Grade-V	19	43.1675	11.73832	2.69295
	Grade-VI	21	42.6246	10.06406	2.19616
	Grade-VII	22	39.9793	5.38992	1.14914
	Grade-VIII	29	40.0734	6.78376	1.25971
	Total	91	41.2854	8.55674	.89699

Table 4.2.2.3 (B): Representing one-way ANOVA results for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of bi-lingual tea garden elementary school students with relation to their Grade.

Dimension of creativity		Sum of Squares	df	Mean Square	F	Sig. *p*
Elaboration Ability	Between Groups	309.165	3	103.055	1.409	.246
	Within Groups	6363.275	87	73.141		
	Total	6672.440	90			
Originality	Between Groups	16.381	3	5.460	8.242	.000
	Within Groups	57.636	87	.662		
	Total	74.017	90			
Creativity	Between Groups	185.094	3	61.698	.838	.477
	Within Groups	6404.509	87	73.615		
	Total	6589.603	90			

Interpretation

One-way ANOVA showing that the p-value (0.246) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of Grade (V, VI, VII and VIII) on elaboration dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.000) is lower than 0.05 level of significant. So the null hypothesis is not accepted. The mean of the students of Grade-V, Grade-VI, Grade-VII and Grade-VIII are 1.4306, 1.8150, 2.3884 and 2.4872 respectively. Therefore, it has been observed that the Grade-VIII students is greater than the other Grade students in originality dimension of creativity.

One-way ANOVA showing that the p-value (0.477) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of Grade (V, VI, VII and VIII) on creativity as a whole of tea garden elementary school students.

Table 4.2.2.3 (C): Grade wise multiple comparison of Originality dimension of creativity.					
Dependent Variable	(I) Grade of Schooling	(J) Grade of Schooling	Mean Diff. (I-J)	Std. Error	Sig. *p*
Originality	Grade-V	Grade-VI	-.38438	.25771	.139
		Grade-VII	-.95774*	.25491	.000
		Grade-VIII	-1.05652*	.24023	.000
	Grade-VI	Grade-VII	-.57336*	.24831	.023
		Grade-VIII	-.67214*	.23322	.005
	Grade-VII	Grade-VIII	-.09879	.23012	.669

Introduction:

A multiple comparison in LSD test has been done here, where it has been observed that there is a significant relation grade V students with grade VII students in originality dimension of creativity. The mean of the grade V and grade VII students are 1.4306 and 2.3884 respectively. Hence the mean difference between grade V and grade VII students .95774 but the LSD test for significance showing the groups significantly because the p-value (.000) is lower than 0.05 level of significance. Therefore grade VII students more originality than grade V students. There is also a significant relation of grade V students with grade VIII students in originality dimension of creativity. The mean of the grade V students and grade VIII students are 1.4306 and 2.4872 respectively. Hence the mean difference between grade V and grade VIII students 1.05652 but the LSD test for significance showing the groups significantly because the p-value (.000) is lower than 0.05 level of significance .Hence grade VIII students have secured more originality dimension of creativity than the grade V students.

A signification relation of grade VI students with grade VII students has also been spotted in originality dimension of creativity. The mean of the grade VI students and grade VII students are 1.8150 and 2.3884 respectively. Hence the mean difference between grade VI students and grade VII students 0.57336 but the LSD test for significance showing the groups significantly because the p-value (.023) is lower than 0.05 level of significance. Therefore grade VII students more originality dimension of creativity than grade VI students. The mean of the grade VI students and grade VIII students are 1.8150 and 2.4872 respectively. Hence the mean difference between grade VI and grade VIII students 0.67214 but the LSD test for significance showing the groups significantly because the p-value

(.005) is lower than 0.05 level of significance .Hence grade VIII students have secured more originality dimension of creativity than the grade VI students.

Therefore, it has been observed that the grade VIII students is greater than the other grade students in originality dimension of creativity.

Testing Ho11: There is no significant difference among general, scheduled caste, scheduled tribes and other backward classes bi-lingual elementary level tea garden students in elaborate on dimension of creativity, originality Dimension of creativity and creativity as a whole.

Table 4.2.2.4 (A): Caste wise Descriptive Statistics regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of bi-lingual tea garden elementary school students.

Dimension of creativity	Caste	N	Mean	Std. Deviation	Std. Error
Elaboration Ability	General	7	39.00	13.429	5.076
	Scheduled Caste	39	37.44	6.060	.970
	Scheduled Tribe	39	40.38	9.735	1.559
	Other Backward Classes	6	43.17	8.035	3.280
	Total	91	39.20	8.610	.903
Originality	General	7	2.4575	1.08856	.41144
	Scheduled Caste	39	2.2104	.88224	.14127
	Scheduled Tribe	39	1.9578	.93790	.15018
	Other Backward Classes	6	1.7013	.40117	.16378
	Total	91	2.0876	.90687	.09507
Creativity	General	7	41.4575	13.49876	5.10205
	Scheduled Caste	39	39.6463	5.89116	.94334
	Scheduled Tribe	39	42.3424	9.79734	1.56883
	Other Backward Classes	6	44.8679	7.80226	3.18526
	Total	91	41.2854	8.55674	.89699

4.2.2.4 (B): Representing one-way ANOVA results for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of bi-lingual tea garden elementary school students with relation to their Caste.						
Dimension of creativity		Sum of Squares	df	Mean Square	F	Sig. *p*
Elaboration Ability	Between Groups	270.786	3	90.262	1.227	.305
	Within Groups	6401.654	87	73.582		
	Total	6672.440	90			
Originality	Between Groups	3.098	3	1.033	1.267	.291
	Within Groups	70.919	87	.815		
	Total	74.017	90			
Creativity	Between Groups	225.571	3	75.190	1.028	.384
	Within Groups	6364.032	87	73.150		
	Total	6589.603	90			

Interpretation

One-way ANOVA showing that the p-value (0.305) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of caste (general, scheduled caste, and Other Backward Classes) on elaboration dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.291) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of caste (general, scheduled caste, and Other Backward Classes) on originality dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.384) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of caste (general, scheduled caste, and Other Backward Classes) on creativity as a whole of tea garden elementary school students.

Testing Ho12: There is no significant influence of familial monthly income of bi-lingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole.

Table 4.2.2.5 (A): Gender wise Descriptive Statistics and T-Test regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of bi-lingual tea garden elementary school students.

Dimension of creativity	Familial Monthly Income	N	M	SD	SE,M	Mean Diff.	df	T	Sig. (2-tailed) *p*
Elaboration Ability	Up to 3000	48	38.81	9.382	1.354	-.815	89	-.449	.655
	Above 3000	43	39.63	7.746	1.181				
Originality	Up to 3000	48	2.0714	.96125	.13874	-.03423	89	-.179	.859
	Above 3000	43	2.1056	.85304	.13009				
Creativity	Up to 3000	48	40.8839	9.31099	1.34393	-.84963	89	-.471	.639
	Above 3000	43	41.7335	7.71298	1.17622				

Interpretation

One-way ANOVA showing that the p-value (0.655) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of familial monthly income (up to 3000 and above 3000) on elaboration dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.859) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of familial monthly income (up to 3000 and above 3000) on originality dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.639) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of familial monthly income (up to 3000 and above 3000) on creativity as a whole of tea garden elementary school students.

Testing Ho13: There is no significant influence of number of siblings of bi-lingual elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole.

Table 4.2.2.6 (A): Number of sibling wise Descriptive Statistics regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of bi-lingual tea garden elementary school students.

Dimension of creativity	Sibling	N	Mean	Std. Deviation	Std. Error
Elaboration Ability	No sibling	12	39.17	11.077	3.198
	One Sibling	46	38.52	8.369	1.234
	Two Siblings	15	40.53	9.117	2.354
	More than Two Siblings	18	39.83	7.485	1.764
	Total	91	39.20	8.610	.903
Originality	No sibling	12	2.0551	1.02814	.29680
	One Sibling	46	2.2659	.96017	.14157
	Two Siblings	15	2.0013	.68623	.17718
	More than Two Siblings	18	1.7255	.78077	.18403
	Total	91	2.0876	.90687	.09507
Creativity	No sibling	12	41.2217	11.22304	3.23981
	One Sibling	46	40.7876	8.15493	1.20238
	Two Siblings	15	42.5346	9.18374	2.37123
	More than Two Siblings	18	41.5588	7.64843	1.80275
	Total	91	41.2854	8.55674	.89699

4.2.2.6 (B): Representing one-way ANOVA results for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of bi-lingual tea garden elementary school students with relation to their Number of sibling.

Dimension of creativity		Sum of Squares	df	Mean Square	F	Sig. *P*
Elaboration Ability	Between Groups	55.061	3	18.354	.241	.867
	Within Groups	6617.378	87	76.062		
	Total	6672.440	90			
Originality	Between Groups	3.947	3	1.316	1.633	.187
	Within Groups	70.070	87	.805		
	Total	74.017	90			
Creativity	Between Groups	36.200	3	12.067	.160	.923
	Within Groups	6553.403	87	75.326		
	Total	6589.603	90			

Interpretation:

One-way ANOVA showing that the p-value (0. 867) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of number of siblings (no sibling, one sibling, two sibling and more than two sibling) on elaboration dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.187) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of number of siblings (no sibling, one sibling, two sibling and more than two sibling) on originality dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.923) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of number of siblings (no sibling, one sibling, two sibling and more than two sibling) on creativity as a whole of tea garden elementary school students.

Testing Ho14: There is no significant influence of parental educational qualification of bi-lingual elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole.

Table 4.2.2.7 (A): Parental educational qualification wise Descriptive Statistics regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of bi-lingual tea garden elementary school students.

Dimension of creativity	Parental educational qualification	N	Mean	Std. Deviation	Std. Error
Elaboration Ability	Illiterate	3	43.67	14.572	8.413
	Primary	51	38.63	8.895	1.246
	Elementary	30	40.07	7.891	1.441
	Higher Education	7	37.71	7.868	2.974
	Total	91	39.20	8.610	.903
Originality	Illiterate	3	1.4380	.58949	.34034
	Primary	51	2.0768	.96518	.13515
	Elementary	30	2.1057	.88713	.16197
	Higher Education	7	2.3671	.59039	.22315
	Total	91	2.0876	.90687	.09507
Creativity	Illiterate	3	45.1046	15.10986	8.72368
	Primary	51	40.7043	8.74056	1.22392
	Elementary	30	42.1723	8.04878	1.46950
	Higher Education	7	40.0814	7.52424	2.84389
	Total	91	41.2854	8.55674	.89699

Table 4.2.2.7 (B): Representing one-way ANOVA results for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of bi-lingual tea garden elementary school students with relation to their parental educational qualification.

Dimension of creativity		Sum of Squares	df	Mean Square	F	Sig. P
Elaboration Ability	Between Groups	114.556	3	38.185	.507	.679
	Within Groups	6557.883	87	75.378		
	Total	6672.440	90			
Originality	Between Groups	1.829	3	.610	.735	.534
	Within Groups	72.188	87	.830		
	Total	74.017	90			
Creativity	Between Groups	94.730	3	31.577	.423	.737
	Within Groups	6494.874	87	74.654		
	Total	6589.603	90			

Introduction:

One-way ANOVA showing that the p-value (0.679) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of parental educational qualification (Illiterate, primary, elementary and higher education) on elaboration dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.534) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of parental educational qualification (Illiterate, primary, elementary and higher education) on originality dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.737) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of parental educational qualification (Illiterate, primary, elementary and higher education) on creativity as a whole of tea garden elementary school students.

4.2.3 To analyse elaboration dimension of creativity, originality dimension of creativity and creativity as a whole among elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.

Testing Ho15: There is no significant difference between male and female elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole;

4.2.3.1 (A): Gender wise Descriptive Statistics and T-Test regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of tea garden elementary school students.

Domains of Creativity	Gender of the student	N	M	SD	SE,M	Mean Diff.	df	T	Sig. (2-tailed) *p*
Elaboration Ability	Male	100	41.66	9.467	.947	6.610	198	6.038	.000
	Female	100	35.05	5.496	.550				
Originality	Male	100	2.1971	.85421	.08542	.39670	198	3.032	.000
	Female	100	1.8004	.99114	.09911				
Creativity	Male	100	43.8571	9.43916	.94392	7.00670	198	6.396	.000
	Female	100	36.8504	5.56090	.55609				

Interpretation

This T test indicate that the p-value (.000) is lower than 0.05 level of significance. So hypothesis is not accepted. The mean of the male elaboration dimension of creativity is 41.66 and mean of Female elaboration dimension of creativity is 35.05. Hence, from it can be conclude that Male is greater than female in elaboration dimension of creativity.

This T test indicate that the p-value (.003) is lower than 0.05 level of significance. So hypothesis is not accepted. The mean of the male originality dimension of creativity is 2.1971 and mean of Female originality dimension of creativity is 1.8004. Hence, from it can be conclude that Male is greater than female in originality dimension of creativity.

This T test indicate that the p-value (.000) is lower than 0.05 level of significance. So hypothesis is not accepted. The mean of the male creativity as a whole is 43.8571 and mean of Female creativity as a whole is 36.8506. Hence, from it can be conclude that Male is greater than female in creativity as a whole.

Testing Ho16: There is no significant influence of age of elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole.

Table 4.2.3.2 (A): Age wise Descriptive Statistics regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of tea garden elementary school students.

Dimension of creativity	Age	N	Mean	Std. Deviation	Std. Error
Elaboration Ability	10	52	40.31	10.255	1.422
	11	45	37.09	7.486	1.116
	12	49	38.06	7.639	1.091
	13	36	38.03	7.439	1.240
	14	14	38.64	8.289	2.215
	Total	196	38.47	8.393	.600
Originality	10	52	1.4684	.54500	.07558
	11	45	1.8975	.90504	.13491
	12	49	2.3311	1.04025	.14861
	13	36	2.1254	.95099	.15850
	14	14	2.4167	.78084	.20869
	Total	196	1.9710	.92288	.06592
Creativity	10	52	41.7761	10.44957	1.44909
	11	45	38.9864	7.63351	1.13794
	12	49	40.3923	7.77525	1.11075
	13	36	40.1532	7.52737	1.25456
	14	14	41.0596	8.36783	2.23640
	Total	196	40.4404	8.51073	.60791

4.2.3.2 (B): Representing one-way ANOVA results for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of tea garden elementary school students with relation to their age.

Dimension of creativity		Sum of Squares	df	Mean Square	F	Sig.
Elaboration Ability	Between Groups	277.092	4	69.273	.983	.418
	Within Groups	13459.724	191	70.470		
	Total	13736.816	195			
Originality	Between Groups	23.374	4	5.844	7.821	.000
	Within Groups	142.710	191	.747		
	Total	166.084	195			
Creativity	Between Groups	196.355	4	49.089	.673	.611
	Within Groups	13927.993	191	72.921		
	Total	14124.348	195			

Interpretation:

One-way ANOVA showing that the p-value (0.418) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of age (ten, eleven, twelve, thirteen and fourteen) on elaboration dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.000) is lower than 0.05 level of significant. So the null hypothesis is not accepted. The mean of the students of age 10, age 11, age 12, age 13 and age 14 are 1.4684, 1.8975, 2.3311, 2.1254 and 2.4167respectively. Therefore, it has been observed that the age 14 students is greater than the other age group students in originality dimension of creativity.

One-way ANOVA showing that the p-value (0.611) is greater than 0.05 level of significance. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of age (ten, eleven, twelve, thirteen and fourteen) on creativity as a whole of tea garden elementary school students.

Table 4.2.3.2(C): Age wise multiple comparison of, Originality dimension of creativity.					
Dependent Variable	(I) Age of the students	(J) Age of the students	Mean Difference (I-J)	Std. Error	Sig. *p*
Originality	10	11	-.42912*	.17599	.016
		12	-.86273*	.17210	.000
		13	-.65709*	.18741	.001
		14	-.94834*	.26027	.000
	11	12	-.43361*	.17847	.016
		13	-.22797	.19328	.240
		14	-.51922	.26452	.051
	12	13	.20563	.18974	.280
		14	-.08562	.26195	.744
	13	14	-.29125	.27226	.286

Interpretation

A multiple comparison in LSD test has been done here, where it has been observed that there is a signification relation of age 10 students with age 11 students has also been spotted in originality dimension of creativity .The mean of age 10 students 1.4684 and for age 11 students 1.8975. Hence the mean difference between ages 10 students and 11 students 0.42912 but the LSD test for significance showing the groups significantly because the p-value (.016) is lower than 0.05 level of significance. Thus the age11 students have more originality dimension of creativity than age 10 students. There is also a significant relation of age10 students with age12 students in originality dimension of creativity. The mean of age 10 students 1.4684 and for age12 students 2.3311. Hence the mean difference between ages ten and twelve 0.86273 but the LSD test for significance showing the groups significantly because the p-value (.000) is lower than 0.05 level of significance. There is also a significant relation of age 10 students with age 13 students in originality dimension of creativity. The mean of age 10 students1.4684 and for age13 students 2.1254. Hence the mean difference between ages 10 students and 13 students 0.65709 but the LSD test for significance showing the groups significantly because the p-value (.001) is lower than 0.05 level of significance. Hence age 13 students have secured more originality dimension of creativity than the age 10 students. There is also a significant relation of age 10 students with age 12 students in originality dimension of creativity. The mean of age10 students 1.4684 and for age14 students 2.4167. Hence the mean difference between ages10 students and 14 students 0.94834 but the LSD test for significance showing the groups significantly

because the p-value (.000) is lower than 0.05 level of significance. Hence age 14 students have secured more originality dimension of creativity than the age 10 students.

There is also a significant relation of age 11 students with age 12 students in originality dimension of creativity. The mean of age 11 students 1.8975 and for age 12 students 2.3311. Hence the mean difference between ages eleven and twelve 0.43361 but the LSD test for significance showing the groups significantly because the p-value (.016) is lower than 0.05 level of significance. Hence age 12 students have secured more originality than the age 11 students.

Therefore, it has been observed that the age 14 students is greater than the other age group students in originality dimension of creativity.

Testing Ho17: There is no significant difference among class five, class six, class seven and class eight tea garden elementary school students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole.

Table 4.2.3.3 (A): Class wise Descriptive Statistics regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of tea garden elementary school students

Domains of Creativity	Grade	N	Mean	Std. Deviation	Std. Error
Elaboration Ability	Grade-V	50	39.02	9.492	1.342
	Grade-VI	50	38.68	9.526	1.347
	Grade-VII	50	37.70	7.086	1.002
	Grade-VIII	50	38.02	7.383	1.044
	Total	200	38.36	8.402	.594
Originality	Grade-V	50	1.3987	.61573	.08708
	Grade-VI	50	1.7123	.80418	.11373
	Grade-VII	50	2.4877	.93234	.13185
	Grade-VIII	50	2.3962	.93181	.13178
Creativity	Grade-V	50	40.4187	9.68868	1.37019
	Grade-VI	50	40.3923	9.62943	1.36181
	Grade-VII	50	40.1877	6.97319	.98616
	Grade-VIII	50	40.4162	7.57153	1.07078
	Total	200	40.3537	8.48789	.60018

Table 4.2.3.3(B): Representing one-way ANOVA results for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole with regard to grade of tea garden elementary school students

Domains of Creativity		Sum of Squares	df	Mean Square	F	Sig. *p*
Elaboration Ability	Between Groups	54.455	3	18.152	.254	.858
	Within Groups	13993.340	196	71.395		
	Total	14047.795	199			
Originality	Between Groups	41.955	3	13.985	20.244	.000
	Within Groups	135.404	196	.691		
	Total	177.359	199			
Creativity	Between Groups	1.860	3	.620	.008	.999
	Within Groups	14334.945	196	73.137		
	Total	14336.805	199			

Interpretation

One-way ANOVA showing that the p-value (0.858) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of Grade (V, VI, VII and VIII) on elaboration dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.000) is lower than 0.05 level of significant. So the null hypothesis is not accepted. The mean of the students of Grade-V, Grade-VI, Grade-VII and Grade-VIII are 40.4187, 40.3923, 40.1877 and 40.4162 respectively. Therefore, it has been observed that the Grade-V students is greater than the other age group students in originality dimension of creativity.

One-way ANOVA showing that the p-value (0.999) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of Grade (V, VI, VII and VIII) on creativity as a whole of tea garden elementary school students.

Table 4.2.3.3 (C): Representing grade wise Multiple comparison in LSD of originality dimension of creativity.					
Dependent Variable	(I) Grade of Schooling	(J) Grade of Schooling	Mean Difference (I-J)	Std. Error	Sig. *p*
Originality	Grade-V	Grade-VI	-.31351	.16623	.061
		Grade-VII	-1.08891*	.16623	.000
		Grade-VIII	-.99748*	.16623	.000
	Grade-VI	Grade-VII	-.77540*	.16623	.000
		Grade-VIII	-.68397*	.16623	.000
	Grade-VII	Grade-VIII	.09143	.16623	.583

Interpretation:

A multiple comparison in LSD test has been done here, where it has been observed that there is a significant relation grade V students with grade VII students in originality dimension of creativity. The mean of the grade V and grade VII students are 1.3987 and 2.4877 respectively. Hence the mean difference between grade V and grade VII students 1.08891 but the LSD test for significance showing the groups significantly because the p-value (.000) is lower than 0.05 level of significance. Therefore grade VII students more originality dimension of creativity than grade V students. There is also a significant relation of grade V students with grade VIII students in originality. The mean of the grade V students and grade VIII students are 1.3987 and 2.3962 respectively. Hence the mean difference between grade V and grade VIII students 0.99748 but the LSD test for significance showing the groups significantly because the p-value (.000) is lower than 0.05 level of significance .Hence grade VIII students have secured more originality dimension of creativity than the grade V students.

A signification relation of grade VI students with grade VII students has also been spotted in originality dimension of creativity. The mean of the grade VI students and grade VII students are 1.7123 and 2.4877 respectively. Hence the mean difference between grade VI students and grade VII students 0. 77540 but the LSD test for significance showing the groups significantly because the p-value (.000) is lower than 0.05 level of significance. Therefore grade VII students more originality dimension of creativity than grade VI students. The mean of the grade VI students and grade VIII students are 1.7123 and 2.3962 respectively. Hence the mean difference between grade VI and grade VIII students 0.68397 but the LSD test for significance showing the groups significantly because the p-value (.000) is lower than 0.05 level of significance .Hence grade VIII students have secured more originality dimension of creativity than the grade VI students.

Therefore, it has been observed that the grade V students is greater than the other grade group students in originality dimension of creativity.

Testing Ho18: There is no significant difference among general, scheduled caste, scheduled tribes and other backward classes elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole

Table 4.2.3.4 (A): Caste wise descriptive statistics regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of tea garden elementary school students.

Domains of Creativity		N	Mean	Std. Deviation
Elaboration Ability	General	17	38.76	9.833
	Scheduled Caste	112	37.21	7.439
	Scheduled Tribe	43	39.88	9.414
	Other Backward Classes	28	40.32	9.186
	Total	200	38.36	8.402
Originality	General	17	2.2804	1.02819
	Scheduled Caste	112	2.0494	.93846
	Scheduled Tribe	43	1.9055	.92308
	Other Backward Classes	28	1.7683	.93098
	Total	200	1.9987	.94406
Creativity	General	17	41.0452	9.90059
	Scheduled Caste	112	39.2636	7.49603
	Scheduled Tribe	43	41.7892	9.50750
	Other Backward Classes	28	42.0898	9.46853
	Total	200	40.3537	8.48789

Table 4.2.3.4 (B): Representing one-way ANOVA result for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole with regard to caste of tea garden elementary school students

Domains of Creativity		Sum of Squares	df	Mean Square	F	Sig. *p*
Elaboration Ability	Between Groups	357.353	3	119.118	1.705	.167
	Within Groups	13690.442	196	69.849		
	Total	14047.795	199			
Originality	Between Groups	3.497	3	1.166	1.314	.271
	Within Groups	173.863	196	.887		
	Total	177.359	199			
Creativity	Between Groups	314.202	3	104.734	1.464	.226
	Within Groups	14022.603	196	71.544		
	Total	14336.805	199			

Interpretation

One-way ANOVA showing that the p-value (0.167) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of caste (general, scheduled caste, and Other Backward Classes) on elaboration dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.271) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of caste (general, scheduled caste, and Other Backward Classes) on originality dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.226) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of caste (general, scheduled caste, and Other Backward Classes) on creativity as a whole of tea garden elementary school students.

Testing Ho19: There is no significant influence of familial monthly income of elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole.

Table 4.2.3.5 (A): Familial monthly income wise Descriptive Statistics and T-Test regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of tea garden elementary school students.

Dimension of creativity	Familial Monthly Income	N	M	SD	SE,M	Mean Diff.	df	T	Sig. (2-tailed) *p*
Elaboration Ability	Up to 3000	108	37.67	8.616	.829	-1.496	198	-1.257	.210
	Above 3000	92	39.16	8.115	.846				
Originality	Up to 3000	108	2.0236	.99543	.09579	.05401	198	.402	.688
	Above 3000	92	1.9696	.88448	.09221				
Creativity	Up to 3000	108	39.6902	8.70616	.83775	-1.44237	198	-1.199	.232
	Above 3000	92	41.1326	8.20288	.85521				

Interpretation

T-test showing that the p-value (0.210) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of familial monthly income (up to 3000 and above 3000) on elaboration dimension of creativity of tea garden elementary school students.

T-test showing that the p-value (0.688) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of familial monthly income (up to 3000 and above 3000) on originality dimension of creativity of tea garden elementary school students.

T-test showing that the p-value (0.232) is greater than 0.05 level of significant. So the null hypothesis is accepted. Hence it is concluded that there is no significant influence of familial monthly income (up to 3000 and above 3000) on creativity as a whole of tea garden elementary school students.

Testing Ho20: There is no significant influence of number of siblings of elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole.

Table 4.2.3.6 (A): Number of sibling wise descriptive statistics regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of tea garden elementary school students.

Domains of Creativity		N	Mean	Std. Deviation	Std. Error
Elaboration Ability	No sibling	25	37.84	8.179	1.636
	One Sibling	102	38.59	8.514	.843
	Two Siblings	40	38.85	9.311	1.472
	More than Two Siblings	33	37.42	7.267	1.265
	Total	200	38.36	8.402	.594
Originality	No sibling	25	1.8718	.95832	.19166
	One Sibling	102	2.0905	.93780	.09286
	Two Siblings	40	1.9817	.97544	.15423
	More than Two Siblings	33	1.8318	.92181	.16047
	Total	200	1.9987	.94406	.06676
Creativity	No sibling	25	39.7118	8.39611	1.67922
	One Sibling	102	40.6787	8.52787	.84438
	Two Siblings	40	40.8317	9.39599	1.48564
	More than Two Siblings	33	39.2561	7.47221	1.30074
	Total	200	40.3537	8.48789	.60018

Table 4.2.3.6 (B): Representing one-way ANOVA result for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole with regard to number of sibling of tea garden elementary school students.

Domains of Creativity		Sum of Squares	df	Mean Square	F	Sig. *p*
Elaboration Ability	Between Groups	50.569	3	16.856	.236	.871
	Within Groups	13997.226	196	71.414		
	Total	14047.795	199			
Originality	Between Groups	2.192	3	.731	.818	.485
	Within Groups	175.167	196	.894		
	Total	177.359	199			
Creativity	Between Groups	69.974	3	23.325	.320	.811
	Within Groups	14266.832	196	72.790		
	Total	14336.805	199			

Interpretation

One-way ANOVA showing that the p-value (0.871) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of number of siblings (no sibling, one sibling, two sibling and more than two sibling) on elaboration dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.485) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of number of siblings (no sibling, one sibling, two sibling and more than two sibling) on originality dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.811) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of number of siblings (no sibling, one sibling, two sibling and more than two sibling) on creativity as a whole of tea garden elementary school students.

Testing Ho21: There is no significant influence of parental educational qualification of elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole.

Table 4.2.3.7 (A): Parental educational qualification wise descriptive statistics regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of tea garden elementary school students.

Dimension of creativity	Parental educational qualification	N	Mean	Std. Deviation	Std. Error
Elaboration Ability	Illiterate	11	33.36	9.532	2.874
	Primary	109	38.01	8.379	.803
	Elementary	69	39.67	8.080	.973
	Higher Education	11	38.55	8.430	2.542
	Total	200	38.36	8.402	.594
Originality	Illiterate	11	1.1312	.52067	.15699
	Primary	109	2.0240	.97791	.09367
	Elementary	69	1.9977	.89128	.10730
	Higher Education	11	2.6222	.68728	.20722
	Total	200	1.9987	.94406	.06676
Creativity	Illiterate	11	34.4948	9.85383	2.97104
	Primary	109	40.0332	8.26830	.79196
	Elementary	69	41.6644	8.36481	1.00700
	Higher Education	11	41.1676	8.42532	2.54033
	Total	200	40.3537	8.48789	.60018

Table 4.2.3.7 (B): Representing one-way ANOVA result for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole with regard to parental educational qualification of tea garden elementary school students.

Domains of Creativity		Sum of Squares	df	Mean Square	F	Sig. *p*
Elaboration Ability	Between Groups	406.198	3	135.399	1.945	.124
	Within Groups	13641.597	196	69.600		
	Total	14047.795	199			
Originality	Between Groups	12.624	3	4.208	5.007	.002
	Within Groups	164.735	196	.840		
	Total	177.359	199			
Creativity	Between Groups	514.610	3	171.537	2.432	.066
	Within Groups	13822.196	196	70.521		
	Total	14336.805	199			

Interpretation

One-way ANOVA showing that the p-value (0.124) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of parental educational qualification on elaboration dimension of creativity of tea garden elementary school students.

One-way ANOVA showing that the p-value (0.002) is lower than 0.05 level of significant. So the null hypothesis is not accepted. The mean of the illiterate, primary, elementary and higher education of the parents are 1.1312, 2.0240, 1.9977 and 2.6222 respectively. Therefore, it has been observed that the parents, who have higher education is greater than the other parents group in originality dimension of creativity.

One-way ANOVA showing that the p-value (0.066) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant influence of parental educational qualification on creativity as a whole of tea garden elementary school students.

Table 4.2.3.7 (C): Representing parental educational qualification Wise Multiple Comparison in LSD of originality dimension of creativity.					
Dependent Variable	(I) Parent's Educational Qualification	(J) Parent's Educational Qualification	Mean Difference (I-J)	Std. Error	Sig. *p*
Originality	Illiterate	Primary	-.89284*	.29003	.002
		Elementary	-.86653*	.29764	.004
		Higher Education	-1.49099*	.39092	.000
	Primary	Elementary	.02630	.14104	.852
		Higher Education	-.59816*	.29003	.040
	Elementary	Higher Education	-.62446*	.29764	.037

Interpretation:

A multiple comparison in LSD test has been done here, where it has been observed that there is a significant relation illiterate of the parents with primary education of the parents in originality dimension of creativity. The mean of the illiterate of the parents and primary of the parents are 1.1312 and 2.0240 respectively. Hence the mean difference illiterate of the parents between and primary education of the parents 0.89284 but the LSD test for significance showing the groups significantly because the p-value (.002) is lower than 0.05 level of significance. Hence primary of the parents have secured more originality dimension of creativity than the illiterate of the parents. There is a significant relation illiterate of the parents with elementary of the parents in originality dimension of creativity. The mean of the illiterate of the parents and elementary education of the parents are 1.1312 and 1.9977 respectively. Hence the mean difference illiterate of the parents between and elementary education of the parents 0.86653but the LSD test for significance showing the groups significantly because the p-value (.004) is lower than 0.05 level of significance. Hence elementary education of the parents have secured more originality dimension of creativity than the illiterate of the parents.

There is a significant relation higher education of the parents with elementary of the parents in originality dimension of creativity. The mean of the illiterate of the parents and higher education of the parents are 1.1312 and 2.6222 respectively. Hence the mean difference illiterate of the parents between and higher education of the parents 1.49099 but the LSD test for significance showing the groups significantly because the p-value (.000) is lower

than 0.05 level of significance. Hence higher education of the parents have secured more originality dimension of creativity than the illiterate of the parents.

Therefore, it has been observed that the higher education of the parents is greater than the other education group parents in originality dimension of creativity.

4.2.4 To compare elaboration dimension of creativity between monolingual and bilingual elementary level tea garden students.

Testing Ho22: There is no significant difference between monolingual and bilingual elementary level tea garden students in elaboration dimension of creativity;

Table 4.2.4.1 (A): Language wise Descriptive Statistics and T-Test regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of tea garden elementary school students.

Dimension of creativity	Language	N	M	SD	SE,D	Mean Difference	T	df	Sig. (2-tailed) *p*
Elaboration Ability	Monolingual	109	37.65	8.197	.785	-1.546	-1.298	198	.198
	Bilingual	91	39.20	8.610	.903				

Interpretation

T-Test showing that the p-value (0.196) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant differences in elaboration dimension of creativity of tea garden elementary school students with respect to language ability.

4.2.5 To compare originality dimension of creativity between monolingual and bilingual elementary level tea garden students.

Testing Ho23: There is no significant difference between monolingual and bilingual elementary level tea garden students in originality dimension of creativity;

Table 4.2.5.1 (A): Language wise Descriptive Statistics and T-Test regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of tea garden elementary school students.

Dimension of creativity	Language	N	M	SD	SE,M	Mean Diff.	df	T	Sig. (2-tailed). *p*
Originality	Monolingual	109	1.9245	.97194	.09309	-.16306	198	-1.218	.225
	Bilingual	91	2.0876	.90687	.09507				

Interpretation

T-Test showing that the p-value (0.225) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant differences in originality dimension of creativity of tea garden elementary school students with respect to language ability.

4.2.6 To compare creativity between monolingual and bilingual elementary level tea garden students.

Testing Ho24: There is no significant difference between monolingual and bilingual elementary level tea garden students in creativity as a whole.

Table 4.2.6.1 (A): Language wise Descriptive Statistics and T-Test regarding elaboration dimension of creativity, originality dimension of creativity and creativity as a whole of tea garden elementary school students.

Dimension of creativity	Language	N	M	SD	SD,M	Mean Diff.	df	T	Sig. (2-tailed) *P*
Creativity	Monolingual	109	39.5759	8.38996	.80361	-1.70949	198	-1.422	.157
	Bilingual	91	41.2854	8.55674	.89699				

Interpretation

T-Test showing that the p-value (0.157) is greater than 0.05 level of significant. So the null hypothesis is accepted**.** Hence it is concluded that there is no significant differences in creativity as a whole of tea garden elementary school students with respect to language ability.

Chapter- V

FINDING AND CONCLUSION

5.1.0 Introduction

This present study chapter of "Major Finding and conclusion" is concerned with the conclusive features of the entire study. The analysis and interpretation of data of the previous chapter, led the researcher towards this conclusive phase. The final or concluding aspects of the study has been described in this study chapter in a very brief manner. But while description has been made in this chapter due care has been taken to include all the charm of the practicability of the study. However, the content materials of the presents chapter has been categorized under five broad heads namely major findings and conclusion of this results, implication of the study, limitation of the study and suggestions for further study.

5.2.0 Findings of this Study

5.2.1 Elaboration Dimension of Creativity among Monolingual Elementary Level Tea Garden Students With Respect Their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

1. It is found that Male and female monolingual elementary level tea garden students do differ significantly in elaboration dimension of creativity and male students has more elaboration ability than female students.
2. Result of the study also showed that elaboration dimension of creativity of monolingual elementary level tea garden students is not influenced significantly by their age.
3. Result of the study also showed that elaboration dimension of creativity of monolingual elementary level tea garden students is not influenced significantly by their grade.
4. It was also found that caste of monolingual elementary level tea garden students has no significant influence on their elaboration ability.

5. Familial income of monolingual elementary level tea garden students had no significant influence on their elaboration ability (elaboration dimension of creativity).
6. Result of the study also showed that elaboration dimension of creativity of monolingual elementary level tea garden students is not influenced significantly by their number of siblings.
7. It was found that parental educational qualification of monolingual elementary level tea garden students is an influencing factor of elaboration dimension of creativity. Result of the study also showed students from higher education group were more elaborative than others.

5.2.2 Originality Dimension of Creativity among Monolingual Elementary Level Tea Garden Students With Respect their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

8. It is found that Male and female monolingual elementary level tea garden students do differ significantly in originality dimension of creativity and male students had more originality than female students.
9. It was found that age of monolingual elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed that students from age-14 years group were more elaborative than age-10, agr-11, age-12, and age-13 years group.

10. It was found that grade of monolingual elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed that students from grade VII were more originality than grade V grade VI and grade VIII.

11. It was also found that caste of monolingual elementary level tea garden students has no significant influence on their originality dimension of creativity.
12. Familial income of monolingual elementary level tea garden students had no significant influence on their originality dimension of creativity.

13. Result of the study also showed that originality dimension of creativity of monolingual elementary level tea garden students is not influenced significantly by their number of siblings.
14. It was found that parental educational qualification of monolingual elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed students from higher education group were more originality than others.

5.2.3 Creativity among Monolingual Elementary Level Tea Garden Students with respect their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

15. It is found that Male and female monolingual elementary level tea garden students do differ significantly in creativity as a whole and male students had more creativity as a whole than female students.
16. Result of the study also showed that creativity as a whole of monolingual elementary level tea garden students is not influenced significantly by their age.
17. Result of the study also showed that creativity as a whole of monolingual elementary level tea garden students is not influenced significantly by their grade.
18. It was also found that caste of monolingual elementary level tea garden students has no significant influence on their creativity as a whole.
19. Familial income of monolingual elementary level tea garden students had no significant influence on their creativity as a whole.
20. Result of the study also showed that creativity as a whole of monolingual elementary level tea garden students is not influenced significantly by their number of siblings.
21. It was found that parental educational qualification of monolingual elementary level tea garden students is an influencing factor of creativity as a whole. Result of the study also showed students from higher education group were more creativity as a whole than others.

5.2.4 Elaboration Dimension of Creativity Among Bilingual Elementary Level Tea Garden Students With Respect Their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification.

22. It is found that Male and female bilingual elementary level tea garden students do differ significantly in elaboration dimension of creativity and male students had more elaboration ability than female students.
23. Result of the study also showed that elaboration dimension of creativity of bilingual elementary level tea garden students is not influenced significantly by their age.
24. Result of the study also showed that elaboration dimension of creativity of bilingual elementary level tea garden students is not influenced significantly by their grade.
25. It was also found that caste of bilingual elementary level tea garden students has no significant influence on their elaboration ability.
26. Familial income of bilingual elementary level tea garden students had no significant influence on their elaboration ability (elaboration dimension of creativity).
27. Result of the study also showed that elaboration dimension of creativity of bilingual elementary level tea garden students is not influenced significantly by their number of siblings.
28. It was found that parental educational qualification of bilingual elementary level tea garden students is no influenced significantly elaboration dimension of creativity.

5.2.5 Originality Dimension of Creativity among Bilingual Elementary Level Tea Garden Students with respect their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

29. It is found that Male and female bilingual elementary level tea garden students do not differ significantly in originality dimension of creativity.
30. It was found that age of bilingual elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed that students from age-12 year's group were more elaborative than age-10, agr-11, age-13, and age-14 year's group.

31. It was found that grade of bilingual elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed that students from grade VIII were more originality than grade V grade VI and grade VII.

32. It was also found that caste of bilingual elementary level tea garden students has no significant influence on their originality dimension of creativity.
33. Familial income of bilingual elementary level tea garden students had no significant influence on their originality dimension of creativity.
34. Result of the study also showed that originality dimension of creativity of bilingual elementary level tea garden students is not influenced significantly by their number of siblings.
35. It was found that parental educational qualification of bilingual elementary level tea garden students is no influenced significantly originality dimension of creativity.

5.2.6 Creativity among Bilingual Elementary Level Tea Garden Students with Respect Their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

36. It is found that Male and female bilingual elementary level tea garden students do differ significantly in creativity as a whole and male students had more creativity as a whole than female students.
37. Result of the study also showed that creativity as a whole of bilingual elementary level tea garden students is not influenced significantly by their age.
38. Result of the study also showed that creativity as a whole of bilingual elementary level tea garden students is not influenced significantly by their grade.
39. It was also found that caste of bilingual elementary level tea garden students has no significant influence on their creativity as a whole.
40. Familial income of bilingual elementary level tea garden students had no significant influence on their creativity as a whole.
41. Result of the study also showed that creativity as a whole of bilingual elementary level tea garden students is not influenced significantly by their number of siblings.
42. It was found that parental educational qualification of monolingual elementary level tea garden students is no influenced significantly creativity as a whole.

5.2.7 Elaboration Dimension of Creativity among Elementary Level Tea Garden Students with Respect Their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

43. It is found that Male and female elementary level tea garden students do differ significantly in elaboration dimension of creativity and male students had more elaboration ability than female students.
44. Result of the study also showed that elaboration dimension of creativity of elementary level tea garden students is not influenced significantly by their age.
45. Result of the study also showed that elaboration dimension of creativity of elementary level tea garden students is not influenced significantly by their grade.
46. It was also found that caste of creativity elementary level tea garden students has no significant influence on their elaboration ability.
47. Familial income of creativity elementary level tea garden students had no significant influence on their elaboration ability (elaboration dimension of creativity).
48. Result of the study also showed that elaboration dimension of creativity of creativity elementary level tea garden students is not influenced significantly by their number of siblings.
49. It was also found that parental educational qualification of monolingual elementary level tea garden students is no influenced significant elaboration dimension of creativity.

5.2.8 Originality Dimension of Creativity among Elementary Level Tea Garden Students with respect to their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

50. It is found that Male and female creativity elementary level tea garden students do differ significantly in originality dimension of creativity and male students had more originality than female students.
51. It was found that age of creativity elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed that students from age-14 years group were more elaborative than age-10, agr-11, age-12, and age-13 years group.

52. It was found that grade of creativity elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed that students from grade V were more originality than grade VI grade VII and grade VIII.

53. It was also found that caste of creativity elementary level tea garden students has no significant influence on their originality dimension of creativity.
54. Familial income of creativity elementary level tea garden students had no significant influence on their originality dimension of creativity.
55. Result of the study also showed that originality dimension of creativity of creativity elementary level tea garden students is not influenced significantly by their number of siblings.
56. It was found that parental educational qualification of creativity elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed students from higher education group were more originality than others.

5.2.9 Creativity among Elementary Level Tea Garden Students with Respect Their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

57. It is found that Male and female monolingual creativioty level tea garden students do differ significantly in creativity as a whole and male students had more creativity as a whole than female students.
58. Result of the study also showed that creativity as a whole of creativity elementary level tea garden students is not influenced significantly by their age.
59. Result of the study also showed that creativity as a whole of creativity elementary level tea garden students is not influenced significantly by their grade.
60. It was also found that caste of creativity elementary level tea garden students has no significant influence on their creativity as a whole.
61. Familial income of creativity elementary level tea garden students had no significant influence on their creativity as a whole.
62. Result of the study also showed that creativity as a whole of creativity elementary level tea garden students is not influenced significantly by their number of siblings.
63. It was also found that parental educational qualification of creativity elementary level tea garden students is influenced significant creativity as a whole.

5.2.10 Comparision of Elaboration Dimension of Creativity between Monolingual and Bilingual Elementary Level Tea Garden Students

64. It is found that monolingual and bilingual creativity elementary level tea garden students do not differ significantly in elaboration dimension of creativity.

5.2.11 Comparison of Originality Dimension of Creativity between Monolingual and Bilingual Elementary Level Tea Garden Students

65. It is found that monolingual and bilingual creativity elementary level tea garden students do not differ significantly in originality dimension of creativity.

5.2.12 Comparison of Creativity between Monolingual and Bilingual Elementary Level Tea Garden Students

66. It is found that monolingual and bilingual creativity elementary level tea garden students do not differ significantly creativity as a whole.

5.3.0 Discussion of the Result

Findings of the study revealed that elaboration dimension of creativity, originality dimension of creativity and creativity of a whole of monolingual tea garden elementary level school students and elaboration ability and creativity as a whole for bilingual tea garden elementary level school students is influenced by their gender. This finding is supporting by Chauhan & Sood (2018), Samanta, T. (2018), Reddy, K. Viswanath, K. & Reddy, S. (2015), Naderi, N. Abdullah, R. Aizan, H. Sharir, J. Kumar, V. (2010) and Jana, P. (2018) But few studies are not supporting this result viz. Potur, A. Barkul, O. (2009), Maria Elvira De Caroli & elisabetta sagone (2009), and Kumara, P. Pujar, L. & Naganur, S. (2014). Siddiqi, S. (2011) reported that there is no significant difference between boys and girls in terms measure of total creativity. Raj, H. (2015) reported that creativity of boys and girls is same. Kamboj, M. (2016) found that there is no significant difference between all the variations of verbal creativity of the boys except for the originality of girls. In the present study in case of originality dimension of creativity for bilingual tea garden elementary level students the result is same as mentioned.

Present study revealed that age of tea garden elementary level school students has significant influence on their originality dimension of creativity. This is corroborated by Jana, P. (2018), Amy F. Claxton,Tammy C. Pannells &Paul A. Rhoads (2010), Hadzireorgiou, Y. Fokialis, P. & Kabouroulou, M. (2012), abra, J. (1989). Kyung Hee Kim (2011) found that that since 1990, even as IQ scores have risen, creative thinking scores have significantly decreased. The decrease for kindergartners through third graders was the most significant. Samanta, T. (2018) also found grade of schooling which is similar to age, significantly influence creative ability of primary school children. But the elaboration dimension and creativity as a whole is not influenced by age of tea garden elementary level school students. This finding is contradicted by samanta (2018), Kumara, P. Pujar, L. & Naganur, S. (2014).

As Samanta found (2018) the present study also revealed that grade of schooling of tea garden elementary level school students has significant influence on their originality dimension of creativity. Finding of the study revealed elaboration dimension of creativity and creativity as a whole is not influenced by grade of schooling this result is in contrast with Samanta (2018).

Caste of monolingual and bilingual tea garden elementary level students has no significant influence on their elaboration dimension of creativity, originality dimension of creativity and creativity as a whole. This finding has been supported by Jana, P. (2018), Amardeep Singh (2018). Anshu Mali and Dr. Parmod Kumari (2017) also found that there were no significant influence of castes among secondary school students belonging to schedule caste, non-schedule caste and schedule tribe categories on fluency, flexibility originality and overall creativity thinking.

Familial monthly income is a not significant factor for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole. Jana, P. (2018) and Amardeep Singh (2018) have also found the same thing in their study.

Number of siblings of monolingual and bilingual tea garden elementary level students has no significant influence on their elaboration dimension of creativity, originality dimension of creativity and creativity as a whole. Findings of Samanta, T. (2018) corroborates this finding.

Parents educational qualification is a significant factor for originality dimension of creativity but for elaboration dimension and creativity as a whole is not significant not a

single study found in support or contrast of this finding, that means it is totally new result revealed the by the researcher. Samanta, T. (2018) There are not significant were found in children's number of sibling and formal schooling generation and not significant between types of family, formal schooling and number of sibling on creativity.

When creative abilities are compared between tea garden monolingual and bilingual elementary level students there was no significant difference found in relation with their elaboration dimension of creativity, originality dimension of creativity and creativity as a whole. Yazdanjoo S. & Fallahpour H. (2018) show there was no significant difference between low, mid and high levels creativity female and male English as a foreign learning learner's creative thinking skills. But in contrast to this findings Leikim, M. et al (2014) found a significant difference in favor of bilinguals. Lee H. & Kim K. (2010) that the degree of bilingualism was positively associated with creativity. Their study also found that individuals' degree of bilingualism and creativity are positively correlated, regardless of gender or age. Al Johara Fahad Al Saud (2016) found significant difference in favour of monolingual children. Anatoliy V. kharkhurin (2010 revealed a monolingual advantage in verbal creativity and a bilingual advantage in non-verbal creativity.

5.4.0 Educational Implication of the Study

This study has great educational implications. Some of these are as follows:

Results of the monolingual students;

1. As the results showed from the perspective of gender in case of the monolingual students, a significant difference was found among the subjects, therefore the study suggests to make some initiatives in order to fulfil the gender differences on the concerned cases.
2. The variables like age, grade and parent's educational qualification determined a significant difference to the students, which also knocks the door of some effective steps so that the concerned differences can be minimized.
3. The students who belong to different caste, familial income, and numbers of sibling have no significant differences on the concerned variables, that's why a little bit importance is necessary.

Results of the bilingual students;

4. In case of the bilingual students, as a significant difference was found from the perspective of age and grade among the students, suggestions of initiatives to cover up the differences are to be offered there by the study.
5. On the other hand, a very least importance needs to provide to the students, who belong to different gender, caste, familial income, number of sibling and parent's educational qualification as there was no significant differences among the students regarding the concerned variables.

Results of the total sample;

6. From the perspective of total sample there was a significant difference among the students regarding the variables like- gender, age, grade and parent's educational qualification. Now the study compels us to fill up the differences among the students taking into account the concerned variables.
7. The variables, caste, familial income, number of sibling and language ability of the students are found not significant. So least importance should be provided to the students laying under the concerned variables.
8. Measures should be taken to provide opportunities for boosting creativity among the students both at home and school.
9. To encourage parental involvement in the children's creative activities, proper solution should be enforced.
10. The results of the study can be implemented in all the developmental stages of mankind throughout West Bengal.

According to the result of this study all the teaching institution of our society can encourage the children to increase their creative ability.

5.5.0 Limitations of the Study

1. The sample of the study did not cover all types of elementary level school like vocational, different boards of school, different medium of instruction based schools.
2. The researcher can't go beyond more than eight variables.

3. The generalization of the result may be slightly different and may not be applicable to the populations. Because due to the shortage of time, the researcher would not be able to make a survey of large number of students. The researcher studies only a limited number of students which might not represent the populations.
4. The researcher was able to access himself only to 200 sample, which cannot represent the whole population. If the researcher included a large number of sample then the result could be more valid and reliable.
5. Here locality also differs. The researcher took the samples from the rural area based school, while urban samples could contribute a large.
6. The study was based on non-verbal creativity ignoring verbal aspects of creativity.
7. The tool used for the study was not a fully standardized one.
8. The study did not cover all dimension of non-verbal creativity.
9. The study was an attempt to measure the elaboration ability, originality, and creativity of elementary level school children, but the researcher had selected sample from grade-V, VI, VII and VIII, ignoring the lower primary level.
10. The study was limited to the t-test and ANOVA test only in case of inferential statistics.

5.6.0 Suggestions for Further study

This study may be conducted with of large number of student. This study indicated the needs for conducting the research on the following lines to estimate a concrete generalization:

1. This study may be conducted in different place in India.
2. The same study can be conducted by applying different standardized tools.
3. This study con be conducted with more variables.
4. Studies can be made again by selecting sample from all the grades of elementary schooling.
5. Studies may be conducted in schools different medium of instruction.

The present study has been conducted on an only elementary school of rural setting. But this type of study may be extended too many regional language medium of school as well this as school having differential background like urban and rural setting.

CHAPTER – VI

SUMMARY OF THE STUDY

6.1.0 Rational of the Study

After going through and reviewing various related studies which are given in details separately in the second chapter of this dissertation entitled as "Review of Related Literature" the researcher draws the following rationale to undertake the present study.

Hangeun Lee and Kyung Hee Kim (2011) found that individuals' degree of bilingualism and creativity are positively correlated, regardless of gender and age. Girls out performed boys in the areas of bilingualism, elaboration and abstractness of titles. Age was not an influential factor on either creativity or bilingualism. Yazdanjoo and Fallahpour (2018) the result revealed that the low, mid and high levels of Iranian EFL learner's creativity and metaphor use in the process of descriptive writing tasks were correlated. Leikim, M. et al (2014) reported that the relationships between creativity components and bilingualism are task dependent and when differences between bilingual and monolingual children are revealed, they are in favor of bilinguals. Al Johara Fahad Al Saud (2016) found that there were statistically significant differences between monolingual kindergarten children and bilingual kindergarten children in some creative capabilities favouring monolingual children. Leikin, M. (2016) revealed that prominent differences were observed between bilingual children from the bilingual kindergarten and monolingual children favouring bilinguals. Kharkhurin, A. (2009) acknowledged that it's exploratory character as the bilingual and monolingual groups might differ in a number of uncontrolled sociocultural factors that could potentially mediate the effect of bilingualism. Ghonsooly B. and Showqi S. (2012) show the foreign linguistic learning system enhanced new culture and custom, organization of idea and presentation. Bagaria S. (2016) found positive correlation between English language Creativity and Academic Achievement. Thonghattha M. et al (2016) reported that students' motivation towards creative English writing after using Storybird was at a high level. Mall-Amiri B. and Fekrazad S. (2015) results showed that there were no significant relationship between EFL learners' creativity and emotional intelligence. A positive medium relationship between English as a foreign learning learners' creativity and their language learning strategies was observed. Anatoliy V. Kharkhurin (2010) observed

a monolingual advantage in verbal creativity and a bilingual advantage in non-verbal creativity. Lee H. and Kim K. (2010) revealed that the degree of bilingualism was positively associated with creativity. Dijk, M. et al (2018) suggested that creativity and bilingualism overview embodied cognition approach which holds creativity act, creativity and environmental bound. Chauhan and Sood (2018) found male secondary school students were having high mean score on originality than female secondary school students and in all dimensions of Nonverbal test of Creativity namely Elaboration, Originality and total creativity, rural secondary students score higher than urban secondary school students. Reddy, K. Viswanath, K. and Reddy, S. (2015) showed that in non-verbal creativity boys performed higher than girls, students of urban area performed higher than rural area and Class X students scored higher than VIII and IX class students. Samanta, T. (2018) found that cognitive equivalence ability of the children increases with increase of their age. No significant differences were found in creativity with relation to children's types of family, formal schooling generation and number of siblings. It was also found that perceptible ability decreases and functional equivalence ability increases with increases in age. Siddiqi, S. (2011) reported that there is no significant difference between boys and girls in terms of total creativity. Raj, H. (2015) reported that the level of creativity of boys and girls is same. Kamboj, M. (2016) found that there is no significant difference between all the variations of verbal creativity of the boys except for the originality of the girls. Honzikova, J. and Krotky, J. (2014) suggested majority of the students was not found to be creative, but skilled. Jana (2018) revealed that gender and age have significant impact on elaboration, originality and creativity of primary school students. Sener, N. Tuk, C. and Tas, E. (2015) found that their project was effective in increasing the students view of levels of science and creative thinking; at the same time it was found that the using of different learning environments attracted student's interest in learning science and affected them positively towards science. Kumara, P. Pujar, L. and Naganur, S. (2014) showed insignificant influence of types of school, gender, and age on creativity thinking ability of children. Maria Elvira De Caroli and Elisabetta Sagone (2009) reported that there were no significant differences between girls and boys on measures of fluency, flexibility, and titles production. Nami, Y. Maral, H. Ashouri, M. (2013) found positive relationships between components of creativity and achievement. Potur, A. Barkul, O. (2009) reported that there were no gender differences in overall general intelligence and divergent thinking ability.

From the above discussion on the areas of creativity, it is evident that though many research studies have been conducted in these fields, but still these fields need special attention of researchers. After reviewing the related literature, it has been found, most of the related studies were conducted in urban areas. It is observed that most of the studies were conducted abroad and few studies in India and not a single study found in West Bengal. It has been also evident that though many studies concentrated on either creativity or creativity with respect to one or two back ground variables, but no studies found on the creativity of Mono-Lingual and Bi-Lingual Elementary school children in Tea Garden Area with respect to various background variables like gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification etc. comprehensively either in India or abroad. Further, analyses of various studies also indicated that not a single study had been conducted language related creativity with relation to different background or independent variables in particular. And as the researcher belongs to the Jalpaiguri district, it was his primary motive to conduct the study in the concerned area. Moreover, the investigator could not find any study, which was conducted to measure elaboration ability, originality and creativity of primary school children in Jalpaiguri District, West Bengal, India. Hence the above research gaps and conditions evoked the researcher to think about conducting a comprehensive study to measure the elaboration dimension of creativity, originality dimension of creativity and creativity among Mono-Lingual and Bi-Lingual Elementary school children Tea Garden Area of Jalpaiguri District, West Bengal, India.

6.2.0 Statement of the Problem

Therefore in view of the above research gaps the present study can be stated as “Creativity among Mono-Lingual and Bi-Lingual Elementary school children of Tea Garden Area”. The study focused on measurement of Mono-Lingual and Bi-Lingual language ability and creativity thinking ability of Tea garden area elementary level children with respect to various background variables.

6.3.0 Operational Definitions of the Major Terms Used

Creativity: Creativity is an even which is composed of something novel and somehow valuable. Creativity persons produce something and some fundamental ideas are found among them that other persons cannot produce great results. But the creative persons which creates that contents essential thing. The product that comes to society benefit.

Monolingual language: Monolingual language is a term which is used to define the only one language, used by the respondents.

Bilingual language: Bilingual language is a term which is used to define the two language or more than two language used by the respondents in this study.

6.4.0 Objectives of the Study

The present study has started to achieve the following objectives:

13. To analyse elaboration dimension of creativity among monolingual elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
14. To analyse originality dimension of creativity among monolingual elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
15. To analyse creativity among monolingual elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
16. To analyse elaboration dimension of creativity among bilingual elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
17. To analyse originality dimension of creativity among bilingual elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
18. To analyse creativity among bilingual elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.

19. To analyse elaboration dimension of creativity among elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
20. To analyse originality dimension of creativity among elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
21. To analyse creativity among elementary level tea garden students with respect their gender, age, grade, caste, familial monthly income, number of sibling and parental educational qualification.
22. To compare elaboration dimension of creativity between monolingual and bilingual elementary level tea garden students.
23. To compare originality dimension of creativity between monolingual and bilingual elementary level tea garden students.
24. To compare creativity between monolingual and bilingual elementary level tea garden students.

6.5.0 Hypotheses of the Study

Ho1: There is no significant difference between male and female monolingual elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole;

Ho2: There is no significant influence of age of monolingual elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole;

Ho3: There is no significant difference among class five, class six, class seven and class eight monolingual tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho4: There is no significant difference among general, scheduled caste, scheduled tribes and other backward classes monolingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho5: There is no significant influence of familial monthly income of monolingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho6: There is no significant influence of number of siblings of monolingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho7: There is no significant influence of parental educational qualification of monolingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho8: There is no significant difference between male and female bilingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho9: There is no significant influence of age of bilingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho10: There is no significant difference among class five, class six, class seven and class eight bilingual tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho11: There is no significant difference among general, scheduled caste, scheduled tribes and other backward classes bilingual elementary level tea garden students in elaborate on dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho12: There is no significant influence of familial monthly income of bilingual elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho13: There is no significant influence of number of siblings of bilingual elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole;

Ho14: There is no significant influence of parental educational qualification of bilingual elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole;

Ho15: There is no significant difference between male and female elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole;

Ho16: There is no significant influence of age of elementary level tea garden students in elaboration dimension of creativity, originality dimension of creativity and creativity as a whole;

Ho17: There is no significant difference among class five, class six, class seven and class eight tea garden elementary school students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho18: There is no significant difference among general, scheduled caste, scheduled tribes and other backward classes elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho19: There is no significant influence of familial monthly income of elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho20: There is no significant influence of number of siblings of elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho21: There is no significant influence of parental educational qualification of elementary level tea garden students in elaboration dimension of creativity, originality Dimension of creativity and creativity as a whole;

Ho22: There is no significant difference between monolingual and bilingual elementary level tea garden students in elaboration dimension of creativity;

Ho23: There is no significant difference between monolingual and bilingual elementary level tea garden students in originality dimension of creativity;

Ho24: There is no significant difference between monolingual and bilingual elementary level tea garden students in creativity as a whole.

6.6.0 Delimitations of the Study

This study has been conducted in short period of time and it is not possible to undertake research on all areas of the problem. The present study was delimited by the researcher in the following ways:

9. The researcher included the upper primary schools students of Jalpaiguri District n West Bengal as the populations for the study.
10. The study restricted to 200 students of class V, VI, VII and VIII from four schools as sample.
11. This study sample was taken from rural school students only.
12. The study was delimited to four Bengali medium schools only.
13. The study was delimited to broadly one dependent variable' nonverbal creativity thinking ability.
14. The study was delimited to seven independent variable like "Gander", "Age", "Grade", "Caste", "Income", "Number of sibling" and "Prenatal Educational Qualifications".
15. This study was delimited to three dependent variable like elaboration dimension of creativity, originality dimension of creativity and creativity as a whole.
16. The tool used for the study was Dr. Baqer Mehdi's NVTCT-M.

6.7.0 Population of the Study

The tea garden area based elementary school children of Jalpaiguri district in West Bengal are the population of the study.

6.8.0 Sample and Sampling Procedure of the Study

Total 200 elementary level school going students were selected as subject from rural tea garden area of Jalpaiguri District in West Bengal. Five Bengali medium schools were selected as a sample of the study following convenient sampling technique. The researcher of the study has taken boy and girl students both as the sample (100 boys and 100 girls). Further, they were broken down into four sub categories i.e. grade-V, grade-VI, grade-VII, and grade-VIII ranging from the age group of ten to fourteen years. Every group selected

has twenty five male and twenty five female students respectively. The sample distribution was presented graphically on previous chapter i.e. Design of the study.

6.9.0 Key Variables of the study

Here the researcher used two types of variables' independent and dependent variable as discussed below:

B. Independent Variables: In this study, following variables were the independent variables like -

9. Gender: The researcher in this present study included Gander as an independent variable divided into two dimension that is boys and girls.

10. Grade: The researcher in this present study included grade as an independent variable into four categories i.e. V, VI, VII and VIII.

11. Age: The researcher in this present study included age as one of the independent variables. There were five age categories that is 10, 11, 12, 13 and 14years.

12. Caste: The researcher in this present study included caste as an independent variable into four categories i.e. General, SC, ST and OBC.

13. Income: Familial monthly income was considered to be an independent variable in the study having two categories i.e. up to 3000 and above 3000.

14. Parental Educational Qualification: The researcher in this present study included parental educational qualification as an independent variable into four categories i.e. illiterate parents, primary education, secondary education, and higher education qualified parents.

15. Number of Sibling: In the present study, the researcher included number of siblings as an independent variable. Further this variable has been divided into four categories like- no sibling, one sibling, two siblings, three siblings and more than three siblings

16. Use of Language: In the present study the researcher include use of language as an independent variable. Further this variable divided into two categories like- monolingual (only one language) and bilingual Language (two or more than two language).

C. **Dependent variables:** In the present study, three dependent variables have been selected and these are like- the dimension of elaboration, the dimension of originality and creativity as a whole. In order to measure the influence of independent variables on the status of dependent variables, the study was conducted. Briefly in the study, there were three dependent variables like-

1. Elaboration
2. Originality
3. Creativity

6.10.0 Method and Procedure of the Study

The present study was a survey research. It is a cross-sectional survey research as the researcher made a survey for collecting data regarding non-verbal creative thinking of elementary level school students from the randomly selected sample i.e. 200 elementary school students of four schools of the district of West Bengal namely Jalpaiguri. The data were collected from different cross-sections of the sample like- gender wise, grade wise, age wise, caste wise, familial income wise, parent's educational qualifications wise, lingual wise and number of sibling wise.

6.11.0 Tool used for data collection

In the present study, the researcher used the tool for collecting data was 'Non-Verbal Test of Creativity Thinking' by Dr. Baquer Mehdi. This non-verbal test of creative thinking measures the creative ability of the individuals to deal with figural content in a creative manner. The tool used for the students contained 26 items. This test items were divided into three types i.e. picture construction, picture construction and triangles and ellipses. There are Activity-I containing 2 items, which belong to picture construction and the time duration is 10 minutes for completing the activity, Activity-II containing10 items, which belong to picture completion and in order to complete the task 15 minutes time duration has been paid to the task and Activity-III containing 7 triangles and ellipses and the total time duration is 10 minutes for completion of the task. Therefore, the total time required for the test is 35 minutes, in addition to the time required for giving instructions, passing booklet and collect them back.

All items based on the following three items: -

4. Picture construction activity (Activity-I):

This activity presents the subject with two simple geometrical figural, a semi-circle and a rhomb, and requires him to construct an elaborate picture using each figural as an integral part. He is also asked to give an interesting and suitable title to each picture he makes.

5. Picture completion activity (Activity-II):

This activity consists of 10 line drawing which could be made into meaningful picture of different objects. The subject is asked to make a picture which no one else in the group will be able to think of. He is also asked to give an interesting and suitable title to each picture he makes.

6. Triangles and Ellipses activity (Activity-III)

This activity the subject is provided with seven triangles and seven ellipses and he/she is required to construct meaningful pictures based on the two given stimuli. He is also asked to give an interesting and suitable title to each picture he makes.

Scoring Procedure

The following points have to be kept in mind while scoring the test:

Elaboration Scoring

Elaboration is represented by a person's ability to add pertinent details to the minimum and primary response to the stimulus figure. The minimum and the primary response to the stimulus figure is that response which gives essential meaning to the picture. The response title often tells what exactly the testee is trying to make. However, responses which can be reasonably interpreted and identified should be scored. In some cases, the test booklets will have to be turned around or rotated in order to know exactly what the testee has drawn. Sometimes the response represents some abstract idea instead of a thing and so it has got to be scored.

Some difference of opinion may arise in determining what would be the minimum and primary response especially in the case of human figural, birds, animals and several other objects. It is recommended, as a general rule, that the criterion for identifying the response: in other word, only those parts will be considered most essential without which a figure

cannot be identified what it is meant to be. Thus in a human head, eyes and indication of nose and mouth will be enough to identify it as head and so all other parts like hair, ear, neck, etc. should be considered as elaboration.

It is important for the scorer to see that the primary and minimum response is meaningful and to the stimulus before it is scored. If the figure is not relevant and meaningful, it should be ignored. The total elaboration score will consist of a score of one for the primary and minimum response plus one score each for all the additional new ideas. An idea once scored in a picture should not be scored again in the same picture.

Originality Scoring

Originality is represented by uncommonness of a given response. Response given only by less five percent of the group are considered and are given differential weights. The weights have to be determined on the basis of the following scheme. If a response has been given by-

vii. 0.1% to 1.0% of the testes, the response will get an originality weights of 5.
viii. If a response has been given by 1.1% to 2.0% of the testes, the response will get an originality weights of 4.
ix. If a response has been given by 2.1% to 3.0% of the testes, the response will get an originality weights of 3.
x. If a response has been given by 3.1% to 4.0% of the testes, the response will get an originality weights of 2.
xi. If a response has been given by 4.1% to 5.0% of the testes, the response will get an originality weights of 1.
xii. Response given by more of the testes, the response will get an originality weights of zero (0).

Table 3.2-Showing Scoring Procedure of Originality

Percentage of response	Weighty assigned i.e., marks given
o.1% to 1.0%	5
1.1% to 2.0%	4
2.1% to 3.0%	3
3.1% to 4%	2
4.1% to 5%	1
Beyond 5%	0

In the scoring guide, the originality weights have been given for all the originality responses and should be used as such. The score may be directly entered on the answer sheet by closely following the scoring guide.

6.12.0 Procedure of Data Collection

After a careful study of operations involved in this study, the researcher used a standardized scale namely 'NVTCT-M' developed by Dr. Baqer Mehdi for collecting data. For obtaining data he meets the Headmasters of each school and after getting the necessary permissions, he went to the class rooms of class V, VI, VII and class VIII. He collected the test booklets from them after 35-40 minutes.

6.13.0 Techniques Used for Date Analysis

Descriptive and Inferential statistics were used in the present study through SPSS.

7. Frequency
8. Mean
9. Standard Deviation (SD)
10. Percentage Analysis
11. T-Test
12. F-Test or ANOVA

6.14.0 Findings of this Study

6.14.1 Elaboration Dimension of Creativity among Monolingual Elementary Level Tea Garden Students with Respect Their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

1. It is found that Male and female monolingual elementary level tea garden students do differ significantly in elaboration dimension of creativity and male students has more elaboration ability than female students.

2. Result of the study also showed that elaboration dimension of creativity of monolingual elementary level tea garden students is not influenced significantly by their age.
3. Result of the study also showed that elaboration dimension of creativity of monolingual elementary level tea garden students is not influenced significantly by their grade.
4. It was also found that caste of monolingual elementary level tea garden students has no significant influence on their elaboration ability.
5. Familial income of monolingual elementary level tea garden students had no significant influence on their elaboration ability (elaboration dimension of creativity).
6. Result of the study also showed that elaboration dimension of creativity of monolingual elementary level tea garden students is not influenced significantly by their number of siblings.
7. It was found that parental educational qualification of monolingual elementary level tea garden students is an influencing factor of elaboration dimension of creativity. Result of the study also showed students from higher education group were more elaborative than others.

6.14.2 Originality Dimension of Creativity among Monolingual Elementary Level Tea Garden Students With Respect their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

8. It is found that Male and female monolingual elementary level tea garden students do differ significantly in originality dimension of creativity and male students had more originality than female students.
9. It was found that age of monolingual elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed that students from age-14 years group were more elaborative than age-10, agr-11, age-12, and age-13 years group.

10. It was found that grade of monolingual elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed that students from grade VII were more originality than grade V grade VI and grade VIII.

11. It was also found that caste of monolingual elementary level tea garden students has no significant influence on their originality dimension of creativity.
12. Familial income of monolingual elementary level tea garden students had no significant influence on their originality dimension of creativity.
13. Result of the study also showed that originality dimension of creativity of monolingual elementary level tea garden students is not influenced significantly by their number of siblings.
14. It was found that parental educational qualification of monolingual elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed students from higher education group were more originality than others.

6.14.3 Creativity among Monolingual Elementary Level Tea Garden Students with respect their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

15. It is found that Male and female monolingual elementary level tea garden students do differ significantly in creativity as a whole and male students had more creativity as a whole than female students.
16. Result of the study also showed that creativity as a whole of monolingual elementary level tea garden students is not influenced significantly by their age.

17. Result of the study also showed that creativity as a whole of monolingual elementary level tea garden students is not influenced significantly by their grade.
18. It was also found that caste of monolingual elementary level tea garden students has no significant influence on their creativity as a whole.
19. Familial income of monolingual elementary level tea garden students had no significant influence on their creativity as a whole.
20. Result of the study also showed that creativity as a whole of monolingual elementary level tea garden students is not influenced significantly by their number of siblings.
21. It was found that parental educational qualification of monolingual elementary level tea garden students is an influencing factor of creativity as a whole. Result of the study also showed students from higher education group were more creativity as a whole than others.

6.14.4 Elaboration Dimension of Creativity Among Bilingual Elementary Level Tea Garden Students With Respect Their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification.

22. It is found that Male and female bilingual elementary level tea garden students do differ significantly in elaboration dimension of creativity and male students had more elaboration ability than female students.
23. Result of the study also showed that elaboration dimension of creativity of bilingual elementary level tea garden students is not influenced significantly by their age.
24. Result of the study also showed that elaboration dimension of creativity of bilingual elementary level tea garden students is not influenced significantly by their grade.
25. It was also found that caste of bilingual elementary level tea garden students has no significant influence on their elaboration ability.
26. Familial income of bilingual elementary level tea garden students had no significant influence on their elaboration ability (elaboration dimension of creativity).
27. Result of the study also showed that elaboration dimension of creativity of bilingual elementary level tea garden students is not influenced significantly by their number of siblings.
28. It was found that parental educational qualification of bilingual elementary level tea garden students is no influenced significantly elaboration dimension of creativity.

6.14.5 Originality Dimension of Creativity among Bilingual Elementary Level Tea Garden Students with respect their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

29. It is found that Male and female bilingual elementary level tea garden students do not differ significantly in originality dimension of creativity.
30. It was found that age of bilingual elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed that students from age-12 year's group were more elaborative than age-10, agr-11, age-13, and age-14 year's group.

31. It was found that grade of bilingual elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed that students from grade VIII were more originality than grade V grade VI and grade VII.

32. It was also found that caste of bilingual elementary level tea garden students has no significant influence on their originality dimension of creativity.
33. Familial income of bilingual elementary level tea garden students had no significant influence on their originality dimension of creativity.
34. Result of the study also showed that originality dimension of creativity of bilingual elementary level tea garden students is not influenced significantly by their number of siblings.
35. It was found that parental educational qualification of bilingual elementary level tea garden students is no influenced significantly originality dimension of creativity.

6.14.6 Creativity among Bilingual Elementary Level Tea Garden Students with Respect Their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

36. It is found that Male and female bilingual elementary level tea garden students do differ significantly in creativity as a whole and male students had more creativity as a whole than female students.
37. Result of the study also showed that creativity as a whole of bilingual elementary level tea garden students is not influenced significantly by their age.

38. Result of the study also showed that creativity as a whole of bilingual elementary level tea garden students is not influenced significantly by their grade.
39. It was also found that caste of bilingual elementary level tea garden students has no significant influence on their creativity as a whole.
40. Familial income of bilingual elementary level tea garden students had no significant influence on their creativity as a whole.
41. Result of the study also showed that creativity as a whole of bilingual elementary level tea garden students is not influenced significantly by their number of siblings.
42. It was found that parental educational qualification of monolingual elementary level tea garden students is no influenced significantly creativity as a whole.

6.14.7 Elaboration Dimension of Creativity among Elementary Level Tea Garden Students with Respect Their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

43. It is found that Male and female elementary level tea garden students do differ significantly in elaboration dimension of creativity and male students had more elaboration ability than female students.
44. Result of the study also showed that elaboration dimension of creativity of elementary level tea garden students is not influenced significantly by their age.
45. Result of the study also showed that elaboration dimension of creativity of elementary level tea garden students is not influenced significantly by their grade.
46. It was also found that caste of creativity elementary level tea garden students has no significant influence on their elaboration ability.
47. Familial income of creativity elementary level tea garden students had no significant influence on their elaboration ability (elaboration dimension of creativity).
48. Result of the study also showed that elaboration dimension of creativity of creativity elementary level tea garden students is not influenced significantly by their number of siblings.
49. It was also found that parental educational qualification of monolingual elementary level tea garden students is no influenced significant elaboration dimension of creativity.

6.14.8 Originality Dimension of Creativity among Elementary Level Tea Garden Students with respect to their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

50. It is found that Male and female creativity elementary level tea garden students do differ significantly in originality dimension of creativity and male students had more originality than female students.
51. It was found that age of creativity elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed that students from age-14 years group were more elaborative than age-10, agr-11, age-12, and age-13 years group.

52. It was found that grade of creativity elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed that students from grade V were more originality than grade VI grade VII and grade VIII.

53. It was also found that caste of creativity elementary level tea garden students has no significant influence on their originality dimension of creativity.
54. Familial income of creativity elementary level tea garden students had no significant influence on their originality dimension of creativity.
55. Result of the study also showed that originality dimension of creativity of creativity elementary level tea garden students is not influenced significantly by their number of siblings.
56. It was found that parental educational qualification of creativity elementary level tea garden students is an influencing factor of originality dimension of creativity. Result of the study also showed students from higher education group were more originality than others.

6.14.9 Creativity among Elementary Level Tea Garden Students with Respect Their Gender, Age, Grade, Caste, Familial Monthly Income, Number of Sibling and Parental Educational Qualification

57. It is found that Male and female monolingual creativioty level tea garden students do differ significantly in creativity as a whole and male students had more creativity as a whole than female students.

58. Result of the study also showed that creativity as a whole of creativity elementary level tea garden students is not influenced significantly by their age.
59. Result of the study also showed that creativity as a whole of creativity elementary level tea garden students is not influenced significantly by their grade.
60. It was also found that caste of creativity elementary level tea garden students has no significant influence on their creativity as a whole.
61. Familial income of creativity elementary level tea garden students had no significant influence on their creativity as a whole.
62. Result of the study also showed that creativity as a whole of creativity elementary level tea garden students is not influenced significantly by their number of siblings.
63. It was also found that parental educational qualification of creativity elementary level tea garden students is influenced significant creativity as a whole.

6.14.10 Comparision of Elaboration Dimension of Creativity between Monolingual and Bilingual Elementary Level Tea Garden Students

64. It is found that monolingual and bilingual creativity elementary level tea garden students do not differ significantly in elaboration dimension of creativity.

6.14.11 Comparison of Originality Dimension of Creativity between Monolingual and Bilingual Elementary Level Tea Garden Students

65. It is found that monolingual and bilingual creativity elementary level tea garden students do not differ significantly in originality dimension of creativity.

6.14.12 Comparison of Creativity between Monolingual and Bilingual Elementary Level Tea Garden Students

It is found that monolingual and bilingual creativity elementary level tea garden students do not differ significantly creativity as a whole.

6.15.0 Discussion of the Result

Findings of the study revealed that elaboration dimension of creativity, originality dimension of creativity and creativity of a whole of monolingual tea garden elementary level school students and elaboration ability and creativity as a whole for bilingual tea garden elementary level school students is influenced by their gender. This finding is supporting by Chauhan & Sood (2018), Samanta, T. (2018), Reddy, K. Viswanath, K. & Reddy, S. (2015), Naderi, N. Abdullah, R. Aizan, H. Sharir, J. Kumar, V. (2010) and Jana, P. (2018) But few studies are not supporting this result viz. Potur, A. Barkul, O. (2009), Maria Elvira De Caroli & elisabetta sagone (2009), and Kumara, P. Pujar, L. & Naganur, S. (2014). Siddiqi, S. (2011) reported that there is no significant difference between boys and girls in terms measure of total creativity. Raj, H. (2015) reported that creativity of boys and girls is same. Kamboj, M. (2016) found that there is no significant difference between all the variations of verbal creativity of the boys except for the originality of girls. In the present study in case of originality dimension of creativity for bilingual tea garden elementary level students the result is same as mentioned.

Present study revealed that age of tea garden elementary level school students has significant influence on their originality dimension of creativity. This is corroborated by Jana, P. (2018), Amy F. Claxton,Tammy C. Pannells &Paul A. Rhoads (2010), Hadzireorgiou, Y. Fokialis, P. & Kabouroulou, M. (2012), abra, J. (1989). Kyung Hee Kim (2011) found that that since 1990, even as IQ scores have risen, creative thinking scores have significantly decreased. The decrease for kindergartners through third graders was the most significant. Samanta, T. (2018) also found grade of schooling which is similar to age, significantly influence creative ability of primary school children. But the elaboration dimension and creativity as a whole is not influenced by age of tea garden elementary level school students. This finding is contradicted by samanta (2018), Kumara, P. Pujar, L. & Naganur, S. (2014).

As Samanta found (2018) the present study also revealed that grade of schooling of tea garden elementary level school students has significant influence on their originality dimension of creativity. Finding of the study revealed elaboration dimension of creativity and creativity as a whole is not influenced by grade of schooling this result is in contrast with Samanta (2018).

Caste of monolingual and bilingual tea garden elementary level students has no significant influence on their elaboration dimension of creativity, originality dimension of creativity and creativity as a whole. This finding has been supported by Jana, P. (2018), Amardeep Singh (2018). Anshu Mali and Dr. Parmod Kumari (2017) also found that there were no significant influence of castes among secondary school students belonging to schedule caste, non-schedule caste and schedule tribe categories on fluency, flexibility originality and overall creativity thinking.

Familial monthly income is a not significant factor for elaboration dimension of creativity, originality dimension of creativity and creativity as a whole. Jana, P. (2018) and Amardeep Singh (2018) have also found the same thing in their study.

Number of siblings of monolingual and bilingual tea garden elementary level students has no significant influence on their elaboration dimension of creativity, originality dimension of creativity and creativity as a whole. Findings of Samanta, T. (2018) corroborates this finding.

Parents educational qualification is a significant factor for originality dimension of creativity but for elaboration dimension and creativity as a whole is not significant not a single study found in support or contrast of this finding, that means it is totally new result revealed the by the researcher. Samanta, T. (2018) there are not significant were found in children's number of sibling and formal schooling generation and not significant between types of family, formal schooling and number of sibling on creativity.

When creative abilities are compared between tea garden monolingual and bilingual elementary level students there was no significant difference found in relation with their elaboration dimension of creativity, originality dimension of creativity and creativity as a whole. Yazdanjoo S. & Fallahpour H. (2018) show there was no significant difference between low, mid and high levels creativity female and male English as a foreign learning learner's creative thinking skills. But in contrast to this findings Leikim, M. et al (2014) found a significant difference in favor of bilinguals. Lee H. & Kim K. (2010) that the degree of bilingualism was positively associated with creativity. Their study also found that individuals' degree of bilingualism and creativity are positively correlated, regardless of gender or age. Al Johara Fahad Al Saud (2016) found significant difference in favour of monolingual children. Anatoliy V. kharkhurin (2010 revealed a monolingual advantage in verbal creativity and a bilingual advantage in non-verbal creativity.

6.16.0 Educational implication of the study

This study has great educational implications. Some of these are as follows:

Results of the monolingual students;

1. As the results showed from the perspective of gender in case of the monolingual students, a significant difference was found among the subjects, therefore the study suggests to make some initiatives in order to fulfil the gender differences on the concerned cases.
2. The variables like age, grade and parent's educational qualification determined a significant difference to the students, which also knocks the door of some effective steps so that the concerned differences can be minimized.
3. The students who belong to different caste, familial income, and numbers of sibling have no significant differences on the concerned variables, that's why a little bit importance is necessary.

Results of the bilingual students;

4. In case of the bilingual students, as a significant difference was found from the perspective of age and grade among the students, suggestions of initiatives to cover up the differences are to be offered there by the study.
5. On the other hand, a very least importance needs to provide to the students, who belong to different gender, caste, familial income, number of sibling and parent's educational qualification as there was no significant differences among the students regarding the concerned variables.

Results of the total sample;

6. From the perspective of total sample there was a significant difference among the students regarding the variables like- gender, age, grade and parent's educational qualification. Now the study compels us to fill up the differences among the students taking into account the concerned variables.
7. The variables, caste, familial income, number of sibling and language ability of the students are found not significant. So least importance should be provided to the students laying under the concerned variables.
8. Measures should be taken to provide opportunities for boosting creativity among the students both at home and school.

9. To encourage parental involvement in the children's creative activities, proper solution should be enforced.
10. The results of the study can be implemented in all developmental stages of mankind throughout West Bengal.

According to the result of this study all the teaching institution of our society can encourage the children to increase their creative ability.

6.17.0 Limitations of the Study

1. The sample of the study did not cover all types of elementary level school like vocational, different boards of school, different medium of instruction based schools.
2. The researcher can't go beyond more than eight variables.
3. The generalization of the result may be slightly different and may not be applicable to the populations. Because due to the shortage of time, the researcher would not be able to make a survey of large number of students. The researcher studies only a limited number of students which might not represent the populations.
4. The researcher was able to access himself only to 200 sample, which cannot represent the whole population. If the researcher included a large number of sample then the result could be more valid and reliable.
5. Here locality also differs. The researcher took the samples from the rural area based school, while urban samples could contribute a large.
6. The study was based on non-verbal creativity ignoring verbal aspects of creativity.
7. The tool used for the study was not a fully standardized one.
8. The study did not cover all dimension of non-verbal creativity.
9. The study was an attempt to measure the elaboration ability, originality, and creativity of elementary level school children, but the researcher had selected sample from grade-V, VI, VII and VIII, ignoring the lower primary level.
10. The study was limited to the t-test and ANOVA test only in case of inferential statistics.

6.18.0 Suggestions for Further Study

This study may be conducted with of large number of student. This study indicated the needs for conducting the research on the following lines to estimate a concrete generalization:

1. This study may be conducted in different place in India.
2. The same study can be conducted by applying different standardized tools.
3. This study con be conducted with more variables.
4. Studies can be made again by selecting sample from all the grades of elementary schooling.
5. Studies may be conducted in schools different medium of instruction.

The present study has been conducted on an only elementary school of rural setting. But this type of study may be extended too many regional language medium of school as well this as school having differential background like urban and rural setting.

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