

**CONSTRUCTIVIST CLASSROOM ASSESSMENT STRATEGIES FOR
ENGLISH LANGUAGE TEACHING AT HIGHER SECONDARY LEVEL:
DEVELOPMENT, IMPLEMENTATION AND VALIDATION**

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Thesis submitted for the degree of
DOCTOR OF PHILOSOPHY IN EDUCATION

Supervised by
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RESEARCH CENTRE IN EDUCATION
UNIVERSITY OF CALICUT
2025**

DECLARATION

I hereby declare that the work presented in the thesis entitled “**CONSTRUCTIVIST CLASSROOM ASSESSMENT STRATEGIES FOR ENGLISH LANGUAGE TEACHING AT HIGHER SECONDARY LEVEL: DEVELOPMENT, IMPLEMENTATION AND VALIDATION**” is based on the original work done by me under the guidance of **Dr. Sankaranarayanan Paleeri**, Assistant Professor, NSS Training College Ottapalam (University of Calicut). and has not been included in any other thesis submitted previously for the award of any Degree, Diploma, Title or Recognition before. The contents of the thesis are undergone plagiarism check using iThenticate software at C.H.M.K. Library, University of Calicut, and the similarity index found within the permissible limit. I also declare that the thesis is free from AI generated contents.



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Finally, the God Almighty has a plan on all...

Mohammed Shiyas. M V.

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ABSTRACT

N.S.S. TRAINING COLLEGE OTTAPPALAM

Research Centre in Education

CONSTRUCTIVIST CLASSROOM ASSESSMENT STRATEGIES FOR ENGLISH LANGUAGE TEACHING AT HIGHER SECONDARY LEVEL: DEVELOPMENT, IMPLEMENTATION AND VALIDATION

Mohammed Shiyas. M.V
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Research Guide

The study entitled "Constructivist Classroom Assessment Strategies for English Language Teaching at Higher Secondary Level: Development Implementation and Validation" is experimental in framework employing mixed method design. The present research has investigated the influence of the constructivist classroom assessment strategies in enhancing the achievement of students in English subject, better acquisition of English language besides exploring their influence in energising positive attitude, motivation and creative self expressions of the students both in oral and written formats. The researcher also aimed to develop, implement and validate the constructivist classroom assessment strategies integrated framework which can effectively be used by the teachers of English.

The study undertaken quantitative analysis of the scores of the achievement test of the students in English using statistical techniques like sample t-test. To further understand the nuanced nature of the topic, qualitative strategies like Content Analysis, Observation, Feedback Analysis and Focus Group Discussion were also conducted as part of the study.

The quantitative and qualitative analysis undertaken clearly proved the pedagogic edge of the constructivist classroom assessment strategies integrated mode. These strategies were found to be effective and are significantly ahead of the traditional classroom procedures in enhancing the achievement of the students in the English subject and in English language acquisition. The assessment sensitive procedures implemented inside the constructivist classroom also spurred motivation, positive attitude and creative self expressions of the students both in oral and written formats.

Before implementing the experiment seeking to prove the edge of constructivist classroom assessment integrated procedures over the presently practising strategies with the students in the classroom and in order to substantiate the effectiveness of the constructivist classroom assessment strategies integrated mode in enhancing the achievement in English subjects, language acquisition and in energising motivation, positive attitude and creative self expressions of the students, the researcher has validated the specially developed constructivist classroom assessment integrated plan by giving the design to the teachers and experts who in turn endorsed the design presented to them. In short, the constructivist classroom design was ratified by the teachers and experts working in the field before it was implemented in experiment.

In the light of the research findings, the authorities concerned must re emphasize constructivism both in theory and practice, as the key philosophical foundation of the educational practice in Kerala. Materials, methods and evaluation procedures must be in tune with the postulates of constructivism and teachers must be given tailor made training in all these areas with serious monitoring mechanism in place. Constructivist classroom assessment integrated strategies need to be made mandatory inside the classroom.

Pedagogic value of primary language and cultural capital of the students needs to be explored inside the classrooms of English if they are to be termed as constructivist in their orientation.

Key Words: Constructivism, Classroom Assessment Strategies, English Language Teaching, Higher Secondary, Development, Implementation, Validation

പഠനസംഗ്രഹം

**എൻ.എസ്.എസ്. ട്രെയിനിംഗ് കോളേജ് ഒറ്റപ്പാലം
റിസർച്ച് സെന്റർ ഇൻ എഡ്യൂക്കേഷൻ**

**ഹയർ സെക്കണ്ടറി തലത്തിലെ ഇംഗ്ലീഷ് ഭാഷാ അധ്യാപനത്തിനുള്ള
ജ്ഞാനനിർമ്മിതിവാദ ക്ലാസ്റ്ററിയിലധിഷ്ഠിതമായ വിലയിരുത്തൽ രീതികൾ:**

രൂപീകരണം, നടപ്പിലാക്കൽ, സാധൂകരണം

**മുഹമ്മദ് ഷിയാസ്, എം.വി.
ഗവേഷക വിദ്യാർത്ഥി**

**ഡോ. ശങ്കരനാരായണൻ പലീരി
മാർഗ്ഗനിർദ്ദേശകൻ**

ഹയർ സെക്കണ്ടറി തലത്തിലെ ഇംഗ്ലീഷ് ഭാഷാ അധ്യാപനത്തിനുള്ള ജ്ഞാനനിർമ്മിതിവാദ ക്ലാസ്റ്ററിയിലധിഷ്ഠിതമായ വിലയിരുത്തൽ രീതികൾ: രൂപീകരണം, നടപ്പിലാക്കൽ, സാധൂകരണം എന്ന പേരിലുള്ള ഈ പഠനം മിശ്രഗവേഷണരീതിയിൽ പരീക്ഷണാത്മകരീതിയാണ് പിന്തുടരുന്നത്.

ഈ പഠനം ജ്ഞാനനിർമ്മിതി ക്ലാസ്റ്ററിയിലധിഷ്ഠിതമായ വിലയിരുത്തൽ രീതികൾ വിദ്യാർത്ഥികളുടെ ഇംഗ്ലീഷ് ഭാഷാ വിഷയങ്ങളിലെ പഠനനേട്ടങ്ങൾ, മെച്ചപ്പെട്ട ഇംഗ്ലീഷ് ഭാഷാർജ്ജനം, പ്രചോദനം, അനുകൂലമനോഭാവം, സർഗ്ഗാത്മകത എന്നിവ വികസിപ്പിക്കുന്നതിൽ ഉണ്ടാക്കുന്ന സ്വാധീനം പരിശോധിക്കുന്നു. അതിനപ്പുറമെ, ഇംഗ്ലീഷ് അധ്യാപകർക്ക് ഉപയോഗപ്രദമായ ജ്ഞാനനിർമ്മിതി ക്ലാസ്റ്ററിയിലധിഷ്ഠിത വിലയിരുത്തലിനുള്ള ഒരു മാതൃക ഉണ്ടാക്കുവാനും നടപ്പിലാക്കുവാനും സാധൂകരിക്കുവാനുമുള്ള ശ്രമവും ഈ പഠനം ലക്ഷ്യമാക്കുന്നു.

വിദ്യാർത്ഥികളുടെ ഇംഗ്ലീഷ് പരീക്ഷയിൽ നേടിയ മാർക്കുകൾ വിശകലനം ചെയ്യുവാൻ ടി-ടെസ്റ്റ് പോലെയുള്ള ഗണാത്മകരീതികളാണ് ഉപയോഗിച്ചത്. പഠനവിഷയത്തിന്റെ സൂക്ഷ്മ അംശങ്ങളിലേക്ക് കടക്കുന്നതിനായ് ഗണാത്മകമായും ഗുണാത്മകമായ രീതികൾ ഗവേഷണത്തിൽ ഉപയോഗിച്ചിരിക്കുന്നു. ഉള്ളടക്ക വിശകലനം, നിരീക്ഷണം, വിദ്യാർത്ഥി പ്രതികരണം, വിഷയധിഷ്ഠിത വിദ്യാർത്ഥി ചർച്ച എന്നിവയാണ് പഠനത്തിൽ ഉപയോഗിച്ച ഗുണാത്മക തന്ത്രങ്ങൾ.

ജ്ഞാനനിർമ്മിത ക്ലാസ്റ്ററിയിലധിഷ്ഠിത വിലയിരുത്തൽ രീതികൾ പരമ്പരാഗത വിലയിരുത്തൽ രീതികളെക്കാൾ ഫലപ്രദമാണെന്ന് പഠനം തെളിയിക്കുന്നു. വിദ്യാർത്ഥി സൗഹൃദ വിലയിരുത്തൽ തന്ത്രങ്ങൾ ഇംഗ്ലീഷ് വിഷയങ്ങളിലെ പഠനനേട്ടങ്ങൾ, മെച്ചപ്പെട്ട ഇംഗ്ലീഷ് ഭാഷാർജ്ജനം, പ്രചോദനം, അനുകൂല മനോഭാവം, സർഗ്ഗാത്മകത എന്നിവയിൽ ഗണ്യമായ പുരോഗതി കൈവരിക്കുന്നതിന് സഹായിക്കുന്നു. ജ്ഞാനനിർമ്മിതി ക്ലാസ്റ്ററിയിലധിഷ്ഠിത വിലയിരുത്തലിന്റെ ഗുണങ്ങൾ തെളിയിക്കുന്നതിന് ഉപയോഗിച്ച പഠനമാതൃക, ഇംഗ്ലീഷ് അധ്യാപകരുടെയും വിദഗ്ദ്ധരുടെയും സാധൂകരണം നേടിയതിന് ശേഷമാണ് പഠനപരീക്ഷണത്തിനായ് ഉപയോഗിച്ചത്.

ഗവേഷണത്തിന്റെ ഫലങ്ങളുടെ വെളിച്ചത്തിൽ ജ്ഞാനനിർമ്മിതി വാദത്തിന്റെ തത്വങ്ങളും പ്രയോഗരീതികളും കേരളത്തിലെ ക്ലാസ്റ്ററുകളിലെ പഠനപ്രക്രിയകളിൽ കൃത്യമായി പുനർവിന്യസിക്കേണ്ടിയിരിക്കുന്നു. പാഠപുസ്തകങ്ങൾ, പഠനതന്ത്രങ്ങൾ, വിലയിരുത്തൽ രീതികൾ എന്നിവ ജ്ഞാനനിർമ്മിതി വാദത്തിന്റെ വെളിച്ചത്തിലാവണം രൂപീകരിക്കേണ്ടത്. അധ്യാപകർക്ക് ഈ മേഖലകളിൽ കൃത്യമായ പരിശീലനം നൽകേണ്ടതും, പരിശീലനങ്ങൾ കൃത്യമായി നിരീക്ഷിക്കേണ്ടതുമാണ്. കുട്ടികളുടെ മാതൃഭാഷയ്ക്കും അവരുടെ സാംസ്കാരിക മൂലധനങ്ങൾക്കും ജ്ഞാനനിർമ്മിതിവാദ ക്ലാസ്റ്ററുകളിൽ പ്രഥമപരിഗണന ലഭിക്കണമെന്നും ഈ പഠനം വാദിക്കുന്നുണ്ട്.

പ്രധാന പദങ്ങൾ: ജ്ഞാനനിർമ്മിതിവാദം, ക്ലാസ്റ്റർ വിലയിരുത്തൽ രീതികൾ, ഇംഗ്ലീഷ് ഭാഷാ പഠനം, ഹയർ സെക്കൻഡറി, രൂപീകരണം, നടപ്പിലാക്കൽ, സാധൂകരണം

Chapter -1

INTRODUCTION

- **History of Constructivism in Education**
- **Constructivist View of Learning**
- **English Language Teaching in India**
- **Constructivist Assessment: Trends and Global Initiatives**
- **Constructivist Assessment in Higher Secondary Class rooms in Kerala**
- **Need and Significance of Studying Constructivist Approach in English Learning**
- **Statement of the Problem**
- **Operational Definitions**
- **Objectives of the Research**
- **Methodology**
- **Overview of the Study**
- **Delimitation of the Study**
- **Organization of the Report**

INTRODUCTION

The human resource development and quality of a nation are determined by its educational system. In India, various Education Commissions since independence have endorsed the value of education in building and shaping the nation. Over the years, along with the content of curriculum, educationists have begun to focus on methods of transactions too. Besides these new developments, psychological insights stressing the central role of children in educational process too have come up in the educational circles. Pedagogical researches and experimentation too have transformed education all over the globe and India is not an exception. After long and tumultuous engagement with the behaviourist postulates in teaching and learning, the school education in Kerala switched over to constructivism roughly in the year 1997, before the national level school education focusing on it. It is interesting to note that this revolutionary shift in Kerala preceded even the National Curriculum Framework (NCF) 2005, a key document in the history of education in India.

In spite of implementing constructivist practices in school classrooms, serious research studies on constructivist education have not been attempted for a long period in the Kerala state. There are a few studies reported, but very few of them are comprehensive with wider scope and ramification. Johney (2021) endorses this relative absence of studies on constructivism in his study on the Constructivist English Curriculum in Kerala. He says “it has to be said that number of constructivist curriculum across the world are few in number in comparison with the behaviorist counterparts. As such serious studies about such innovative curriculum are also limited in number.”

In Kerala, the first Indian state meaningfully implemented NCF-2005, with multitude of trained constructivist teachers on the roll and umpteen constructivist oriented classrooms to boast, very few studies have been undertaken by the State Council of Educational Research and Training (SCERT), Department of Education or even by the leading scholars on education. Nair (2004) and Indhulekha (2018) studied about constructivist experience in Kerala classrooms, but their studies were not comprehensive enough to describe the constructivist evaluation. Nair’s study

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focused on the visible improvement brought in by the constructivist transformation in primary classrooms in Kerala where as Indhulekha's study stressed on the constructivist turn in English pedagogy in Kerala. The poverty of studies, as in the global academic scenario, has impacted the educational landscape of the state negatively.

Ever since the curriculum transformation in Kerala in 2005, teachers have been implementing constructivist lessons in classrooms in their own idiosyncratic format without doing full justice to this progressive philosophy. Even though the scholars working in this area have pointed out the major lapses in the constructivist curriculum and evaluation strategies, they were more or less satisfied with the pedagogical transformation in Kerala classrooms. Many teachers, after having taught in constructivist ways, have raised many reservations with regard to the practical issues connected with this transformation which included inadequate infrastructure, curriculum load, parental pressure, unchanging evaluation procedures, process monotony, social loafing and elitist bias. Learning materials that are less engaging also added to the existing vows. Besides the practitioners, the noted academics too have written about the need to make constructivist practices more culture sensitive and rooted to make it all the more rewarding. The education Department and other research organizations in Kerala have been lackadaisical about these practical and theoretical insights, leading to far reaching consequences in the educational landscape in Kerala. This is the larger context which encouraged the researcher to undertake the study on constructivist classroom assessment procedures implemented within the higher secondary classes in Kerala, especially in the context of English language teaching.

Constructivist philosophy and its pedagogical procedures are no longer alien to the teachers of Kerala. Most of them have been exposed to the normal fundamentals of the new paradigm through a series of in service training programs organized by the government bodies like the State Council for Educational Research and Training (SCERT) and Directorate of Higher Secondary Education. Constructivism has been defined variously by scholars and research institutions around the world. The National Research Council in its booklet *How People Learn*:

Brain Mind Experience (Report-NRC, 2005) defines it as ‘a new science of learning’ where as Fosnot (1996) views it as a ‘theory of knowing.’ As exemplified above, scholars and research articles emphasize diverse aspects reflecting scholastic divergence on constructivism. Fundamental conceptual change in perception (NCF 2005) Literature Based Approach to Reading and Process Based Orientation in Writing (McCarthy, 1990) Generative Learning (Wittrock, 1985) Situated Learning and Authentic Instruction (Brown & Duggard, 1989) Postmodern Curriculum (Hlynk, 1991) and Educational Semiotics (Cunningham, 1992) point to the multiple views among scholars of the day.

This diversity in perspectives reflect the strength of constructivist philosophy and this democratic orientation in accommodating multiple positions make it most suited to the complex postmodern period. The heterogeneity in debates also point to the rigorous internal conversations being attempted among scholars at different point of time. This accommodative impulses among constructivist scholars is reflected in the words of Prawat (1992), “while there are several interpretations of what constructivism means, most agree that it involves a dramatic change in the focus of teaching, putting the students own efforts to understand the crux of educational enterprise.”

Beyond the diversity of thrust and orientations, constructivists generally emphasize the capacity of learners to construct knowledge using their previous experience and prior knowledge available in their cultural background. It is often said that constructivists brought back the glory of mind which was largely ignored during behaviorist ways of teaching. Human mind is no longer viewed as mirroring an external reality which is absolute and objective. Constructivists posit that knowledge is subjective, contextual and inherently partial. To put in simpler terms in objectivist paradigm teacher transmits authoritative knowledge to passive students where as in constructivist paradigm students construct knowledge in the particular context in which the organizing individual is operating. Constructivism maintains that human beings are always on the move, bodily or mentally or both and it is impossible for them to stagnate and for them to be alive is to be constructive. They build, shape, create and share through working in their environment using thinking skills.

History of Constructivism in Education

While analyzing the history of constructivism, two interesting trajectories emerge. The first one locates the roots of the philosophy in Dewey and Montessori where as the second one extends the inquiry still further and dates back to the continental philosophers like Socrates, Vico, Kant and Hegel. The earliest and the crudest format of constructivism could be found with the Greek philosopher Socrates and his idiosyncratic Socratic methods. He encouraged questions and these questions activated the thinking process of his disciples and activated them to arrive at a consensus through focused and meaningful deliberations. He never presented facts directly and explicitly, instead, he only channelized the thoughts of his disciples and enabled them to construct knowledge through relevant and lead in questions.

Immanuel Kant, the 18th century philosopher too had contributed to the constructivist turn in philosophy in its rudimentary format. He had insisted on the potential of human minds to impose an order on the diverse sensory experiences of this world and not the other way round. Kant never accepted subservient role for human mind and stressed the power of human beings in creating knowledge rather than passively discovering it. The rational structure of human mind, he believed, would enable human beings for the sane and systematic operation. A few scholars have written about the interesting link between Kant and constructivism saying that, constructivism with its emphasis on the ordering of experiences and the constructiveness of knowledge, would naturally take us to the foundational assumptions of Immanuel Kant.

Vico's philosophical dictum that truth is the same as it is made or we know it is because we made it does have interesting constructivist implications. He equated truth and knowledge with the very act of its making and he viewed institutions of this world like government, religion, philosophy, history, law, poetry, art, morality and mathematics as all reflecting the human potentials to be constructive (Astington, 2000). As these human products reflect the collaborative constructivism, Vico also stressed the cooperative enterprise in human endeavors and understood the key role of language in binding the society for its progress, and he also projected language to

be the supreme example of human constructiveness. The Collaborative impulse of human beings and the concurrent institutional structures resulting out of it lead to the psychological unity of the society and this idea of collective construction of human products employing language has close affinity with constructivist knowledge building process.

Hegel's proposition 'what is real is reasonable and what is reasonable is real' puts his theory in a nutshell (Astington, 2000). He posits that mind and universe follow the same laws. Hegel stresses collective action and proposes that each individual is constituted by the particular society and each society has its own idiosyncratic cultural practices and these practices and artifacts vary from society to society in terms of nature, style and format. All these classical philosophers, although in diverse formats, have stressed the constructiveness of human mind and its capacity to order the sensory experience around him.

Over the years, constructivism has evolved enriching itself through accommodating multitudes of theoretical and philosophical trajectories. The major streams of constructivism include cognitive, developmental, personal, radical, social and cognitive constructivism. Scholars from different discipline attributed multiple dimensions to it. Bartlett (1932) stressed cognitive orientation of the human mind and its schematic conception while Dewey (Archambault, 1964) focused on the individualized cognitive constructivism. Vygotsky (1978) however emphasized the role of collaboration in the knowledge production. In spite of all these voices in constructivist framework, often Jean Piaget is credited and recognized as the foundational voice in the establishment and formalization of the constructivist theory in the educational terrain.

Constructivist View of Learning

Constructivist scholars do not think alike. In spite of differences in their basic theoretical postulates, Piaget, Vygotsky, Novak and Posner agree with the foundational principles of constructivism. Sharma (2006) lists these principles in his article on constructivism in the book titled *Constructivist Language Learning*.

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- Learning is not passive or receptive, but it is an active meaning making process for solving a pressing issue.
- New learning depends on learner's previous knowledge which may sometimes interfere with the understanding of the new information.
- Learning implies the organization of prior conceptual schemes.
- Learning is facilitated by social interactions.
- Meaningful learning occurs within authentic learning tasks.

Many scholars have underscored the porous nature of the popular binaries like cognitive constructivism and social constructivism and have stressed that these theoretical schools are not mutually exclusive. They have even proposed a meaningful negotiation of cognitive and social constructivism claiming that knowledge is personally constructed and socially mediated.

Jean Piaget, supposed to be the father of constructivism, is known to have laid the foundation for constructivist turn in educational thinking. He focused primarily on the physical development of individuals. Though, apparently disinterested in social and cultural contexts, the impulse for the same could be found in his emphasis on actions/ activity for the growth of a child. Piaget believes that all knowledge is tied to action and knowing an object or event is to use it by assimilating to an action scheme. He also stressed the role of prior knowledge and previous experience in engaging with the new knowledge to achieve the state of equilibrium. Piaget(1968) is of the view that we construct new knowledge when we encounter a new piece of information that is congruent with our prior knowledge leading to a state of cognitive equilibrium which is a unique state, where things are what we expect them to be. Glasserfield (1989) theorizes it "as a specialty of perception" where "conceptual conflicts or contradictions" are not "brought to the surface. The conceptual categories of assimilation and accommodation are key to Piaget's thinking and if assimilation and accommodation of the new knowledge is smoothly placed into the existing schemes, it leads to the formation of new cognitive structure which in turn lead to new learning or knowledge. Perturbation too is vital to his theory and it is a key precondition for cognitive development. When the new knowledge encountered is

not in tune with child's existing scheme of things, disequilibrium happens. Knight (2002) clarifies it as the state where the new learning takes place thereby theorizing the struggles of children in learning as vital that need meaningful and necessary scaffolding in the Zone of Proximal Development (ZPD). Piaget, along with other cognitive constructivists argue that new knowledge happens only when we move from one cognitive state to another. Piaget says that what remains is construction as such and one sees no ground why it should be unreasonable to think it is the ultimate nature of reality to be in continual construction instead of consisting of an accumulation of readymade structures. Fosnot (1996) elaborates it as we order our knowledge, we are involved in the process of inventing or actually re inventing that requires the re organization of old data and building of new models for the learner. Piaget's ideas like equilibration, self organization of knowledge, reduced role of language in development are still popular with scholars working in the field. However, his genetic epistemologies focusing merely on the physical and mental dimensions are not without criticism. Many blind spots have been identified in his theory which includes his negation of the role of context, uses, media, individual styles and performances in human learning and development.

Unlike the cognitive constructivists Vygotsky, the most prominent social constructivist emphasizes the cultural context and collaborative social interactions during the learning process. Vygotsky (1978) posits that knowledge is mutually built and it is the output of interaction which involves sharing, comparing and debating among learners and mentors refining their own meaning and the meanings of their fellow beings inside the classroom. Social constructivist shift is often explained as projecting students own efforts to understand at the centre of the educational enterprise.

Scholars identify three key assumptions regarding the social constructivist position. The first one is that community plays a vital role in the learning process. Vygotsky reimagined the term environment beyond its normal meaning to incorporate tools, cultural objects, and people around the student. For him, human environment is the social environment and child is very much part of this living

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environment and it is never external to him. Hence, he believed in allowing children to participate in group activities in a meaningful social context which will in turn trigger their psychological functioning. Naturally the social constructivists stress the role of parents, teachers and community in deciding the type of interaction happening between students and the environment.

The second assumption is that quality of tools used also impacts the cognitive development of children. The tools include knowledgeable adults who are important to children, culture and language. The emphasis on the importance of tools forms the key difference between Piaget and Vygotsky. This is an important component of Vygotskian theory, as it contradicts and complements with Piaget's theory especially regarding the role of cultural tools, both technical and symbolical, such as language functioning as mediator in the process.

The third assumption is the much debated Zone of Proximal Development (ZPD) which refers to the distance between what student knows by him and what she can learn with the help of knowledgeable adults and it is within this zone the optimal and maximum learning of student happens. In the developmental context the ZPD is used for explaining emerging psychological functions of the child. Whereas in the applied context ZPD explains the difference between the children's individual and guided performance both in situations of assessment and in classroom learning. Finally, the ZPD is also used as metaphoric space where everyday concept of the child meets with the scientific concept provided by the teacher or other mediators of learning. In the actual classroom ZPD will energize teachers to focus on the maturing functions rather than the existing ones which are geared to next level and futuristic in their orientations.

English Language Teaching in India

Ever since its introduction by the British, English language teaching (ELT) has had a long and tumultuous history. This colonial legacy of English has been viewed as a blessing and a curse simultaneously by the various scholars in India. Some scholars view it as a "benign blessing" while a few others stress its bloody history in Indian subcontinent (Satchidanandan, 2006). These narratives of advantage and exploitation

emerge immediately whenever a discussion on ELT in India is initiated. However, with the advent of globalization the narrative of disadvantage has been replaced with the discourse of advantage, where the efficiency in English skills has been viewed as equipping millions of youth to reap the benefits of the neo liberal projects.

The Wood's Despatch, 1854 was key in the history of English education in India as it listed the aims of English education in India. The report insisted on the diffusion of European culture among the public and celebrated the supremacy of English education over indigenous literature. Lord Curson also impacted the English education in India tremendously in spite of his limited scholarship on sub continental literature. Besides their disregard on orientalist literature, the colonialist focus on conversion and trade and commerce were visible in their various administrative measures.

The post independent Indian scenario was not transformative and the newly formed government too followed the colonial projects at least in education. Education system especially the English language education went unchanged for decades and no significant shift in curriculum and pedagogy was proposed by the elected governments. The behaviorist traditions which impacted the Indian education for long was due to the fact that the post independent Indian state too turned to the west for inspiration and updation. NEP (2020) provides a few path breaking suggestions to re-imagine the traditional, foundational postulates of English education in India. The new stress on multilingual pedagogy in the policy is in tune with the global world order of Liberalisation, Privatisation and Globalization (LPG). Besides the progressive positions on multilingual pedagogy, the document seems to be dismissive about the English language citing its colonial hangover and its elitist predilections which is quite unwarranted of a national document on education.

The National knowledge Commission (2009) made a real headway in the whole debate on English language teaching in India. The commission stressed the role of English in higher education and employment along with stipulating that all school children should get access to English. The report also suggested that the government should start English from first standard and to consider English as a key subject from third standard onwards. Various education commissions in India from

Radhakrishnan to Kothari have suggested key strategies for rewinding education in general and English education in particular.

The Right to Education of 2009 has been a key legislation in the context of education in India and it has mandated quality education and accessible English as the right of all children in this country. This does not, however, imply that the efforts to improve English education remained exclusively with the various governmental agencies in India. Many private players including the British Council and various consulates and English Language Teaching associations (ELT) in India too have contributed greatly to promote teaching and learning of English in India and these bodies especially focused on invigorating English language teaching and learning in classrooms of India.

National Curriculum Framework (NCF, 2005) presented a few interesting suggestions to restructure the education system in India. Ending rote learning, updating Indian curriculum in tune with the best in the world, critical pedagogy were some of the key suggestions, but not much could be done in this direction. But National Education Policy (NEP, 2020) quite contrary to NCF, 2005 reviews the role of English education and stresses the colonialist underpinnings and the elitist inclination of the language. True to its political orientation, the present Government stresses multilingual education and encourages people to view English just like any other language in India. The credibility of this position in the current global reality needs to be examined. These episodes related to ELT before and after the independence of India could not ensure that the ELT scenario is in tune with the global standards and is without many issues. Many issues pester the ELT scenario in India that include curriculum load, parental pressure, uninteresting materials, demotivated students, flawed pedagogy and the influence of the high stakes that need urgent and serious attention.

Constructivist Assessment: Trends and Global Initiatives

Effective assessment of children has always been a major concern of educators. Teachers, students and administrators alike are deeply conscious about the destabilizing impact of assessment in the school life of children. Despite the wash back effect of assessment on curriculum transactions, serious lapses abound

in our understanding about the complex dynamics of classroom assessment. This does not mean that assessment is a dull zone without any internal debates. The manifold conversations held in educational measurement during the last century, beginning from Gestaltism to constructivism through behaviorist experimentation have contributed greatly to the reimagination of assessment protocols over these years.

In tune with the global shifts in educational studies, the assessment scholars too have attempted to mitigate its negative impact on children and in their educational process. Literature on non invasive assessment protocols like differentiated assessment, open book evaluation, portfolio assessment, on demand evaluation etc provide sound testimony to these, but sadly, they are inadequate.

Assessment Reform group in the West, various Educational Commissions in India too have voiced their concern in this regard. The NCF-2005, KCF-2009 and 2011 and the most recently published NCF2023 too have written extensively about transforming the assessment protocols within the schools in India. These documents heralding the constructivist turn in Indian education have presented the practical measures to be urgently implemented to convert the classroom from didactic and monologist teacher dominated space to a truly democratic, progressive, learner centered, and thinking space. These reports have suggested ways of seamlessly integrating assessment with the process of instruction without any artificial separation of the two. The view that learning and assessment are mutually constituted and they sustain each other is largely accepted by the teaching community despite their concern like inadequate infrastructure, uninterested students, huge academic load and parental and social pressure for behaviorism. In spite of the diverse global initiatives and commission reports at various junctures in India especially the educational report like Learning Without Burden by Prof. Yashpal (1993), not much could be done to transform the assessment procedure inside the classrooms and to equip the teachers to maintain an alternative vision on assessment coaxing them to opt the easiest option of behaviorist measurement.

Constructivist Assessment in Higher Secondary Classrooms in Kerala

Higher secondary teachers in Kerala were curious initially about constructivist learning and teaching as it is suited to the needs and behavioral structures of adolescent students. Initially teachers and parents supported these learner friendly classroom transaction and assessment procedures due to their potential to infuse enthusiasm among the teenage students. Learners too were excited about participating in various learning activities, unaware about the assessment components inbuilt in them. Academics too have endorsed the learning potential of constructivist strategies. Many studies, both in the West and in Indian context, have underscored the value of constructivist assessment procedures in enhancing the academic achievement of students and the research by Black and William (1998) is an example to cite. With the constructivist shift in Kerala, much has been done to transform the curriculum construction and transactions in Kerala especially in the materials, methods and assessment protocols which invited large level applause and recognition nationally. But this reform could not translate itself into the grass root classrooms and the day today decisions of an average teacher in Kerala.

The initial excitement over constructivist assessment soon waned due to many reasons. Teachers could not manage the cumbersome assessment procedures and fed up with the inadequate academic and intellectual infrastructure to implement this paradigm shift in assessment. Students and parents who were accustomed to the traditional assessment and scores became less inclined to this pedagogically and psychologically wise assessment initiatives inside the classroom. Insufficient monitoring also worsened the ailing systems. This, however, does not mean that administrators were lackadaisical about the faltering of assessment. They have been conducting tiers of training programs incorporating experts, researchers and teachers from classrooms.

Recognizing this pedagogical complication through feedback from the practicing teachers on the assessment activities prescribed in the course books, the Continuous Evaluation (CE) activities suggested in the previous course books were replaced with the new items like process, portfolio and unit evaluation. As the

previous CE activities did not focus on continuous and comprehensive tracking of students often, students who scored high in CE ended up scoring less in the summatives questioning the very foundations of CE. The revised CE activities are also not perfect as some of them are nothing but disguised summative and hence impacted the classroom assessment negatively. Constructivism is impossible if the classroom activities are not process oriented and without enough slots for daily and formative assessment.

Need and Significance of Studying Constructivist Approach in English Learning

Over the years, especially during the first decades of 21st century, constructivism has established itself to be a convincing alternative to behaviorism in the global educational space. Like in the West, Indian academics too have been deeply impacted by this fresh theorization on learning and knowledge. The key educational documents produced in India since 2005, present testimony to this. NCF-2005 says, “To correct this distortion the present NCF proposes five guiding principles for curriculum development: connecting knowledge to life outside, ensuring that learning shifts away from rote methods, enriching curriculum so that it goes beyond textbooks, making examinations more flexible and integrating them with classroom life and nurturing an overriding identity informed by caring concerns within the democratic polity of the country”

Taking cues from NCF-2005, KCF-2007 and 2011 too have adopted constructivism as the major theoretical background of the curriculum revision held under the left and right dispensation in Kerala reflecting its validity among the key political fronts in Kerala. It is a known fact that the two previous curriculum revisions in Kerala did attempt interesting initiatives in constructivist postulates in education. The new revision in 2023 too is not an exception to it. KCF 2023 says, “previous curriculum transformation did attempt vital moves in constructivist pedagogy, but unfortunately the constructivist rigour in teaching learning methods was not found reflected in learning materials and evaluation causing academic obfuscation among teachers”. National Education Policy (NEP, 2020) is a path breaking document reflecting the complex needs of the postmodern Indian society.

However it does not valorise any single philosophical position but KCF2023 affirms its deep respect for the constructivist philosophy without any sign of self doubt.

Researchers have made a few interesting takes on constructivism in Kerala context, but they were focusing more on constructivist curriculum or material or teaching methods. Globally, assessment is a key component in constructivist education, Teachers in Kerala were seem to be comfortable with behaviorist evaluation which is easy to conduct, record and report without bothering about the insights they provide on the learning of children. This apparent disinclination of teachers towards constructivist assessment has serious implications in the educational scenario of Kerala.

Besides these foundational confusions about the constructivist assessment in higher secondary classrooms, a segment of teachers, in spite of attending series of training programs in constructivist curriculum strategies, still believe in behaviorist discipline and punishment. Many of them blindly believe that repetition and reinforcement are the best methods to teach adolescent children, which has a disastrous consequence in Higher Secondary classrooms in Kerala. Along with these attitudinal issues, a few practical problems also discourage the teachers. The overcrowded classrooms, unscientific and psychologically incorrect timing and parental pressure also dissuade teachers and to continue with their fundamentalist faith in traditional behaviorist teaching learning methods which they received during their school days. When some teachers attempt to implement constructivist classroom addressing all these issues, the content overload, boring chapters and disinterested students also discourage them from following constructivist teaching and learning strategies inside the classroom.

With the pedagogic shift in favour of constructivist principles, Higher Secondary classrooms in Kerala have been transformed to be a progressive space for children, where creativity, critical thinking and collaboration among students have been projected to achieve the desired thematic and linguistic outcomes. Constructivist pedagogic transformation is almost a finished project but it cannot be said the same about constructivist learning materials and assessment procedures. They are still in the nascent stage, in spite of various creative proposals to energize the constructivist turn

in materials and more so in evaluation. Contrary to the constructivist ideals, the higher secondary department still stresses the summative for about the 80% of the score and the rest 20% only is set apart for the continuous and comprehensive evaluation, where daily, ongoing and formative evaluation is undertaken. The percentage assigned to daily assessment is very less and this is indicative of the anti constructivist impulses in Kerala schools that lie in stark contrast to the assessments regimes in the advanced institutions like Tata Institute of Social Sciences (TISS), where substantial score has been kept aside for the formatives.

The Directorate of Higher Secondary Education in Kerala has proposed three major areas for considering in the continuous evaluation (CE) which included learning process, portfolio and unit evaluation with clear and specific indicators assigned for all these activities. These new three activities were finalized after intense deliberations at SCERT and replacing the previous areas of continuous evaluation which included Creative, Investigative, Performance based and Written products. The previous CE regime became problematic with children scoring hundred percent in CE turned out to be less productive in their summative leading to a re thinking of the CE schedule. But a few teachers are still skeptical even with the new regime as they find CE activities difficult to manage especially with the content overload, examination pressure and over strength in Higher Secondary classrooms. The SCERT's position for a segmented evaluation focusing certain groups of students at a time did not cut well with the teachers and hence they resorted to the easiest option of testing and measuring students disregarding the philosophical foundation under lying the CE activities, that is tracking and supporting students. With the inexperienced and experienced teachers alike the formatives have become nothing but disguised summatives dispossessing their huge possibilities. It is high time that we moved ahead of this culture of high pressure testing to more rigorous classroom based constructivist assessments incorporating elements of fun, entertainment and creative competition.

Prediction and prescription are generally posited as the two key functions evaluation in education and standardized high stakes have miserably failed in both these grounds. Champion (2024) has written about the politics of standardized testing

and debunked the myth that it is arranging equal opportunities for all students in the classroom as wrong and unethical and hence he cautions teachers about labeling children based on the high stakes. Concerns about the standardized testing abound in academic circles and even in civil society alike. Assessment Reforms Group has listed many issues related to standardize testing. Researchers have pointed to the conflicting levels of knowledge among those who performed well in the examinations. Dynamic Assessment, a key constructivist assessment model, attempts to address some of these concerns taking cues and insights from the writings of Vygotsky (1978)

Kasol (2000) has identified the key assumptions of Dynamic Assessment as follows,

- Cognitive processes are modifiable.
- Mediated assessment provides better insights in to the performance of students.
- Dynamic Assessment focuses on the inherent potentials of students.
- Dynamic Assessment is process and not product oriented.

Dynamic Assessment has taken diverse thrust and formats in various countries and at various points of time. Some scholars have analyzed the mediated and independent skills in solving an issue while others have focused on the quantity of support given in the process.

Constructivist assessment strategies include test-intervene-retest, mediated learning strategies, reciprocal teaching and application of cognitive functioning scale for pre primary children. A few of them consider the scores in the first, middle and last stage. Budolf (2000) considers the difference between the first and the last score where as Carlson (2000) focuses on the last score of the students. Campion (1996) stresses the help sought by children during the test- intervene-retest process. Assessment literature on constructivist paradigm also stresses space, type, frequency, and feedback while scaffolding the learners in the teaching and learning process.

The scope of dynamic assessment has rarely been explored in Kerala classrooms in spite of the minor constructivist turn in pedagogy. Constructivist

classroom assessment strategies too are largely under explored along with other constructivist assessment experiments held in various parts the world. The inseparability of learning and assessment which is deliberated much in the assessment literature in the west needs to be focused at the earliest. Assessment rich classroom that is innovative, critical, fun filled and supporting creative competition among students is the real need of the hour.

Statement of the Problem

Constructivism in school education has accorded interesting insights on all the components of Curriculum and its transactional modalities. The constructivists thrust on process oriented, activity based and cognitively challenging curriculum transformed education entirely. Curriculum, learning materials, instructional methods, and evaluation have all been impacted with its insistence that children have a key role in knowledge construction within the classroom. A few studies have been conducted on the constructivist curriculum especially on constructivist materials and methods in Kerala State. However, the research attempts are very few in assessment in general and constructivist assessment in particular. The paradigm shift in 2000 was a foundational moment in Kerala sprouting debates in educational circles and civil society alike. Teachers, students and administrators felt the pressure of this constructivist turn. Great efforts were taken to revise teaching and learning scenario and tiers of teacher training were conducted to equip the teachers. Learning materials and evaluation strategies remained largely traditional and behaviorist in spite of continuous focus on these two areas. Many issues persist with regard to constructivist assessment and some teachers are not even aware of it and many are in the clutches of behaviorist convictions. To make the situation worse, the literature in this area is not easily available too. The fundamentalist faith of the teachers in high stakes closed the possibilities of progressive classroom based assessment techniques which have always been central to constructivist paradigm. These high stakes inclination de-motivated them to link assessment and learning meaningfully within the classroom. The present research is planned to intervene in this research gap. It is proposed to design and implement constructivist assessment strategies in the higher secondary English classrooms and to

find out its effect over the presently implemented strategies. Thus the research is titled **“CONSTRUCTIVIST CLASSROOM ASSESSMENT STRATEGIES FOR ENGLISH LANGUAGE TEACHING AT HIGHER SECONDARY LEVEL: DEVELOPMENT, IMPLEMENTATION AND VALIDATION”**.

Operational Definitions

Constructivism

Constructivism is a philosophic position chiefly based on the ideas of Piaget and Vygotsky and applied in educational contexts globally since 1960. Constructivism stresses the key role of children in the learning process. The term constructivism in this regard indicates learners as knowledge constructors and not as mere seekers of knowledge. The term ‘constructivist’ refers to the approach that is based on constructivism.

Classroom Assessment Strategies

Classroom assessment strategies gained popularity in the context of constructivist concern for the all round development of students where continuous tracking and supporting is mandatory. The failure of standardized testing in giving valuable insights on the learning of children also energized the daily based, organic classroom assessment by the teacher and here the teacher needs to design his pedagogy accordingly and tap the possibilities of diversified assessment strategies. These strategies need to be innovative and inclusive and multiple intelligence sensitive.

English Language Teaching

English is a very important component in the higher secondary curriculum. In spite of implementing many innovative projects and procedures, English still remains a hard nut to crack for many students in Kerala. Most of the teachers of English in the state do not make it a point to use English with the children inside the classroom. Besides, students and parents alike think that the best way of learning English is through the mother tongue Malayalam. Most of the teachers of English still follow behaviorist lesson plans with the students.

Higher Secondary Level

Higher secondary level is a key stage of public education in Kerala. The students of this stream are pursuing plus one and plus two courses after completing their secondary education. There are four major streams in Higher Secondary Education in Kerala and students generally opt Higher Secondary Education. The term higher secondary indicates the students who undergo plus one and plus two after completing their Secondary School Leaving Certification (SSLC) in schools that fall under the Director General of Education following the curriculum prescribed by the SCERT Kerala.

Development

Based on the researcher's experience of implementing constructivist classroom assessment strategies with the students and taking cues from the transactional experience gained as part of the research, the researcher has developed a constructivist classroom assessment integrated lesson plan for the consideration the teachers and experts in the field of English language teaching.

Implementation

The researcher, after realizing the positive impact of constructivist classroom assessment strategies with the higher secondary students for teaching English, has presented the constructivist classroom assessment integrated lesson plan to a group of teachers who are new to service and experienced as well as experts in the field of English Language Teaching across Kerala for their evaluation and validation.

Validation

The remarks and feedback of the teachers and experts in English Language Teaching across Kerala were collected and studied to see the effect of the constructivist classroom assessment integrated lesson plan to enhance the language acquisition, attitude, participation and motivation among students. Based on the remarks and comments the constructivist classroom assessment integrated plan was validated.

Research Questions

The research questions of the present study are given below

- 1) How far the constructivist classroom assessment strategies will enhance the achievement of the higher secondary students in English?
- 2) Can constructivist classroom assessment strategies be organized separately and be validated for English language teaching?
- 3) Can the classroom assessment strategy integrated mode of constructivist teaching enhance the language acquisition of higher secondary school students in English?
- 4) Can a newly developed valid model of ‘Constructivist Classroom Assessment Strategies’ be provided to the teachers community as result of this research?

Objectives of the Research

The study posits the value of constructivist classroom assessment strategies in enhancing the achievement, language acquisition and positive attitude towards English language among students. It also endorses the value of classroom assessment to assess the students using techniques like observation, question, writing, projects and performance based assessment. Thus the study designed with the scope of Developing, Implementing and Validating the Constructivist Classroom Assessment Strategies for English Language Teaching. Specific objectives of the present research are listed below:

1. To develop specific Constructivist Classroom Assessment Strategies for teaching English language at higher secondary level
2. To validate the authenticity of Constructivist Classroom Assessment Strategies to teach English at higher secondary level on the basis of teachers and experts perception
3. To plan and practice lessons in English for higher secondary school students in presently practicing constructivist mode and in the Constructivist Classroom Assessment Strategies integrated mode

4. To compare the achievement of learners who are treated with the presently practicing constructivist mode (Control Group) with that of the learners who are treated with Constructivist Classroom integrated mode (Experimental Group)
5. To draw inferences on validity of the developed Constructivist Classroom Assessment Strategies by exploring the effect of teaching English in the Constructivist Classroom Assessment Strategies integrated mode in:
 - a. Achievement in English Language Test
 - b. Creative Language Acquisition
 - c. Developing positive attitude in English language learning
6. To explicate the Constructivist Classroom Assessment Strategies in teaching English for higher secondary level on the basis of the research findings

Methodology

Present study is explorative in design. Hermeneutical approaches are employed to investigate and interpret the individual perception based on the experiences. A mixed-methods approach was employed, incorporating both quantitative data from achievement test and qualitative insights from Focus Group Discussion, Observation, and Feedback analysis. The researcher presumes that the Constructivist- interpretive design suits to the topic selected for the study. Constructivist Interpretative Paradigm stresses on the meaning generated by individuals on various phenomena and not generally attempting at a 'casual explanation' (Baroundi, 2008). Sandberg (2005) rearticulates it as "social situation can have shared meaning among stake holders and it is the agreed meaning that constitute the objective or inter subjective reality." They also focus on how human beings make individual or collective sense of the particular world around and engage in it meaningfully. In the light of the views made above, the study investigates the lived experiences of the key stake holders and the meanings that they have generated out of this process. Hence methods like Observation, Focus Group Discussion and Feedback Analysis were used which would provide organic inroads into the participants' construction of reality (Leavy, 2014). Focus Group Discussion would arrange a special space for participants for meaningful and organic engagements

on the topic among the participants or it would allow them to engage in a free association and represent their vivid experiences and perspectives on the issue at hand.

The Constructivist Interpretive Paradigm, in tune with the qualitative research framework, attempts to unravel the participant views so as to make them explicit and then the patterns of thought are inductively generated using the qualitative analysis of the data without trying to impose existing framework for the purpose. The present study also focuses on the inductive analysis.

Research Design

As mentioned above, the present study is explorative in nature and it attempts to develop constructivist classroom assessment strategies for teaching English at the higher secondary level. The research focused on the aspects such as (i) developing or organizing Constructivist Classroom Assessment Integrated Planning Strategies, (ii) implementing the Constructivist Classroom Assessment Strategies in English teaching sessions at higher secondary level, (iii) exploring its effectiveness in enhancing English Learning of students, and validating the Constructivist Classroom Assessment Strategies based on the multidimensional analysis.

The topic of the study is nuanced and complex allowing for fluctuating positions and hence in order to get a clear understanding of the topic, the data has been collected through multiple strategies. This has enabled the researcher to study the topic from multiple angles allowing for richer data sets, which would in turn, allow for a thick description of the identified data. The triangulation procedures employed by the researcher at different stages of the data collection stages allowed added elements of credibility, trust worthiness and validity of the data.

Sample and Participants

The designated population of the study is the higher secondary school students of Kerala state. The sample for the experimental section of the research is formulated from second year (plus 2) level of higher secondary students. The sample is formulated from the higher secondary school students. Groups of students were taken from a government school, named Government Higher Secondary School, Kattilangadi, Tanur, Malappuram, Kerala. The school is situated in the sub-urban area of Tanur

Municipality, Malappuram district. The school has a total of 180 + 180 students for higher secondary classes; it is 180 in first year and 180 in second year. The subject of study wise strength of students in the school is 60 each in science, humanities and commerce. The students for the experimental and control groups were selected randomly from the plus two level 180 students, considering 62 in control group and 62 in experimental group. Students for the two groups were selected randomly from all subjects, providing opportunities of odd-even number basis. Balance of students was not considered for the experimental purpose. Students who are chosen for Feedback Analysis, Focus Group Discussion, and teachers who are selected to respond on the validity criteria of assessment materials were the other participants of the investigation.

Data Collection Procedure

Data were collected from the respondents at different levels. The quantitative data were collected from achievement test and research conducted pre and post tests. Information has been gathered by employing techniques like Content Analysis, Feedback analysis, Observation and Focus Group Discussion.

Variables of the Study

The research has explored the implementation and validation of Constructivist classroom Assessment Strategies for teaching English. The strategies were integrated with lesson plans for enhancing language acquisition among higher secondary students. The effectiveness and scope of these plans in English language teaching is experimented and validated through multiple analyses. Hence, the research is designed after considering the ‘constructivist classroom assessment strategies’ as independent variable. English language teaching is the depending facet and can be treated as dependent variable. The focus of study was not to explore the effectiveness of the independent variable on the dependent variable, but to infer the validity and authenticity of the developed strategies. Thus it can be treated as the output variable also.

Achievement Test

As part of the quantitative data collection, the researcher has conducted achievement tests for a score of 30 incorporating the first and second block of the English course book prescribed for the second year higher Secondary students of Kerala. Careful attempt is invested to incorporate all types of questions like,

objective, short, and essay type. The question paper included only standardized questions and approved format. Duration to answer the test was One (01) hour.

Content Analysis

Normally, evaluation of the answer sheets of an achievement test ends with scoring. Here the constructivist method of assessment is employed to evaluate the answer sheets in a different perspective. The researcher has used the technique of content analysis of the answer scripts of the students. The content analysis is used as a Constructivist Assessment Strategy and provided for the objective of ‘assessment as learning’ (Dann, 2014). The content analysis would arrange better and more nuanced data regarding the performance of the students which will not be available with the scores of the achievement test. Content analysis will provide extra insights into elements like linguistic, attitudinal, organisational, creative and critical sensibility of the students.

Analysis of the Students’ Feedback and Observation by the Teacher

To further ascertain the results obtained through the statistical analysis of the scores of the achievement test in English and the content analysis of the answer scripts of the students, the researcher has attempted feedback analysis and observation as a part of the processes of validating the constructivist assessment strategies. With regard to teacher observation, the researcher has attempted a non participant observation noting down the vital developments and episodes during the session.

The feedback was collected continuously from control and experimental groups during classroom transactions. As part of the planning and preparation, the researcher has familiarized the components of the schedule in simple language to the students. Interestingly, after the initial surprise and curiosity, all the students took the task seriously and participated fully in the research procedures.

Focus Group Discussion

Focus Group Discussion (FGD) as a technique for data collection will enable the researcher to access the lived experience of the participants devoid of much dilution through their stories and narratives. The technique affords interesting insights as it involves a kind of conversation between the researcher and the participating

students. True to the philosophical paradigm of the present research, knowledge produced is co constructed and hence the insights generated are useful to the stake holders and the system in general. Focus Group Discussion is a semi structured data collection procedure employed in qualitative research. It allows the researcher to be more flexible and enable him to move beyond the superficial and to try for deeper and nuanced sense of the issue under consideration which would naturally afford rich and thick data for study. The key questions to be discussed were framed which included both direct and indirect questions. A few probing questions too were set ready in case the participants are ambiguous about their answers. Some open questions too were kept ready so as to enable the participants to extend the thoughts being made in their answers to the questions, following the principles of FGD (Dichter, 1991).

Overview of the Study

Research review revealed that studies on constructivist assessment are very limited in Kerala. Besides, due to middle class predilections for scores and marks, not much experimentation could be under taken in evaluation. In spite of implementing a constructivist curriculum, the assessment scenario in school education of Kerala stood committed to the traditional behaviorist postulates. The assessment scene in Kerala school education field remained static without any serious initiative to reform it. The continuous and comprehensive evaluation and a few learner friendly concepts like cool of time, student focused question texts, and life oriented questions are a few cosmetic shifts, but they are very limited. Constructivist classroom assessment strategies could have been an interesting turn, in tune with the progressive assessment regimes and process oriented pedagogy, but they were all left in the lurch. Assessment identities within and outside the classrooms including self, peer and teacher and expert could not be properly tapped to extend the possibilities of assessment culture with in the classroom. Meticulous tracking of the students investigating their strength and weaknesses was also not done with enough care. The key concept of socio economic status was never taken into consideration while planning and implementing assessment in spite of it being a crucial academic factor for the teachers. The potential of constructivist classroom procedures to engage with these issues was not really the concern of teachers and curricularists all these years. The present study engaged on all

these aspects of constructivist teaching. The study particularly addresses the scope of introducing Constructivist Classroom Assessment Strategies as an effective approach of constructivist assessment in language teaching.

Delimitation of the Study

- The present study on constructivist classroom assessment strategies is confined to a Control group and an Experimental group only.
- The study has focused on the first two blocks of the English Course Book prescribed for the second year higher secondary school students in Kerala.
- Preparing a framework of Constructivist Classroom Assessment Strategies for all secondary school subjects is essential, but this study zeroed in on the school subject English only.

Organization of the Report

The study report is organized in seven chapters

- Chapter 1 : Introduction, including the problem, need and significance, statement of the problem, definitions of key terms, research questions, objectives, methodology and delimitation of the study.
- Chapter 2 : Theoretical backdrop of the study, related studies and the summary of studies reviewed.
- Chapter 3 : Detailed methodology including tools for data collection, population and sampling procedures and techniques for data analysis.
- Chapter 4 : Development and establishing the Authenticity and validity of Constructivist Classroom Assessment Strategies
- Chapter 5 : Analysis of data and discussion of results based on the research questions and objectives.
- Chapter 6 : Study in retrospect, major findings of the study and conclusions.
- Chapter 7 : Educational implications and suggestions for further research.

The report includes References and Appendices also.

Chapter - 2

REVIEW OF RELATED LITERATURE

- **Studies Related to Constructivism and Assessment**
- **Studies Related to Constructivism and Student Achievement**
- **Studies Related to Constructivism and Teachers**
- **Studies Related to Constructivism and Students**
- **Studies Related to Constructivism and Writing**

REVIEW OF RELATED LITERATURE

Review of related literature plays a vital role in researches in general and educational researches in particular. It carries a seminal position in the design and structuring of a new research project. The serious perusal of previous studies conducted in the research area would equip the researcher to avoid repetition and duplication of studies and to proceed with precise hypothesis leading to pertinent recommendations in the study. Ideally, researcher should understand what the previous researchers have done, what they are doing now and what are some of the key lapses in the studies under taken in the area which would provide the researcher with new direction and insights in the study. Besides giving a glimpse into the existing study, the review also refines the researchers' perception, knowledge, understanding, insights and experience in this selected area of the research.

The studies identified as part of the review of related literature have been assorted under four heads. They are

- Constructivism and Assessment
- Constructivism and Achievement
- Constructivism and Teachers
- Constructivism and Students
- Constructivism and Writing

In order to ensure an easy perusal and understanding of the key features of the studies, a meta analysis of the studies has also been presented before the detailed review of the studies. The researcher presumes that the studies identified under the four heads have enriched the researcher to have a sound understanding of the area in which the study is undertaken.

Table 1*Meta Analysis: Constructivism and Assessment*

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2024	Sulaiman and Rehman	Constructivist assessment and vocational education	Deeper understanding of concepts	Vocational education
2023	Jasrial and Zaim	Constructivism and ELT	Constructivism supported by technology enhances learning outcomes	Higher education
2022	Martinez, Canada.	Formative assessment and language proficiency.	Improved learner proficiency in language.	School education.
2021	Thomson, UK.	Constructivist assessment and student engagement.	Better language acquisition.	School education.
2020	Williams, US	Teacher perception on constructivist assessment.	Generated more meaningful insights on student's learning.	School education
2015	Idris and Sambak	Planning and implementation of school based assessment	Most of the teachers checked the adequacy of the tool of assessment and practiced moderately with heavy planning. Used assessment in tune with the LOs and rarely used self made assessment tools.	Mixed design
2015	Dayal and Lingerm, Fiji.	Views of the primary and secondary teachers on open ended questions.	Half of the inservice teachers opted summatives but most of the in service teachers opted both formative assessment and summatives.	Pre and in service primary teachers.

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2015	Lislay, Trinidad	Formative assessment practices in schools	Formative intention is not met and their knowledge on formative assessment is inadequate which led to mechanical awarding of marks without considering their efforts.	School education
2015	Modupa and Sunday, Nigeria	Secondary teachers perception on the conduct of continuous evaluation	Study underscored that the continuous evaluation should be conducted continually in 3 to 4 weeks time. There was no difference between professional and non professional teachers in the conduct of CE.	Quantitative
2014	Jonah and Mercy	On teacher conception on student assessment	Teachers are positive about using multivarious assessment methods but they have inadequate knowledge and practice in assessment.	Qualitative
2014	Aziz, Indonesia	Teacher conception on class assessment practices.	Teacher's preference for formative assessment practices is visible, but in depth analysis shows that summatives were done more in reality.	Mixed design
2014	Macmillan and Tuner	Responses of the elementary and middle class students on assessment.	The students do not prefer assessment even though it helped to understand their learning progress. They prefer shorter and accurate assessment.	Mixed design

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2014	Semsuddin et al., Malaysia	The readiness, understanding and workload of primary teacher on school based assessment.	There understanding and readiness to do school based assessment is high but their work load is very high.	Quantitative.
2014	Young and Jackerry.	To understand the attitude and perception of lower secondary teachers towards formative assessment.	Stressed the need for teacher training and there was a significant difference between trained and untrained teachers.	Quantitative
2013	Exo, Ethiopia	Perception, attitude and actual practice of continuous assessment in English.	Continuous evaluation does not happen in an organised manner and teachers need orientation in this area.	Mixed design.
2012	Piaw, Netherlands	Validity of computer based assessment over paper and pencil based test.	Study valued computer based more as it could be used as an alternative to the paper and pencil test.	Experimental
2011	Adewale et al., Nigeria.	Perception on electronic and paper and pencil test among University students.	Majority of the students opted electronic mode due to decreased malpractices, wide coverage and enhanced participation.	Higher education.
2011	Parrin, Bangladesh	Perception on school based assessment.	School based assessment had both positives and negatives, positives include purposeful, useful, and properly planned but inadequate teachers and infrastructure are negatives.	Qualitative.

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2011	Tillema and Sejers, Netherland	Different purposes of formative and summative assessment.	Though teachers could not distinguish both but the students could.	Quantitative.
2010	Brookhart	View of the students on formative and summative purposes of assessment.	Need an integrated use of formative and summative assessment in an active and continuous manner.	Secondary Education.
2010	Kaombwe, Africa.	Strength and weakness of school based assessment.	Proper involvement of teachers and relevant feedback are the positives but lack of time and aids are negatives	School education.
2010	Luyten and Dolkar, Bhutan.	Validity of school based, the state mandated and student self assessment.	Moderate agreement on both School based and state mandated assessment.	Quantitative analysis.
2010	Volante, Canada.	On conception and practice of formative and summative and self assessment.	Excessive summatives and least number of formatives. Many impediments for self assessment practices.	Qualitative.
2009	Musawy. Afghanistan	Perception of students and faculty on assessment.	Teachers and students had different perception on assessment. Students preferred unbiased assessment and felt that teachers should be given training in assessment.	Higher education , mixed design.
2008	Brown and Hirschfeld, New Zealand.	On student conceptions of assessment.	Assessment made only students accountable but not the school. Assessment is not at all enjoyable for the students.	Secondary Education and quantitative.

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Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2005	Egelund, Denmark	Educational assessment in Denmark.	Lack of national curriculum, testing and scoring before 8th standard impacted the educational assessment negatively.	Mixed design.
2002	Crooks, New Zealand	On school based assessment in primary, upper primary and High schools.	Teachers mixed both formative and summative assessment but experienced difficulty in balancing both. Summatives often overshadowed the formatives inside the classroom.	School education.
1996	Maurommatis, Greece.	Classroom assessment practice in Greek primary schools and teachers perceptions on it.	Teachers relied heavily on traditional assessment methods	Qualitative study.
1985	Summer	On school based assessment.	Teacher lacked proper knowledge on assessment and they focused more on methods of assessment than on achievement of students.	Quantitative study.
1983	Sinha, India.	On pathology of public examination system in India.	Examination pathology leads to irrelevance of educational process and deterioration ration of human values. The study also points to the restructuring of the teacher's role in assessment.	Forecasts NCF 2005.

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
1977	Sinha, India.	Attitude of teachers and students on examination.	Existing system of examination has both positive and negative aspects but negative outweighed the positives and all the stakeholders sought for a better examination system.	Rating Scale for attitude.
1975	Tewari, India	Pros and cons of question papers set by the upper primary teachers.	Questions are limited to knowledge domain and teachers need training in assessment as their knowledge in blueprint and test construction is abysmally low.	Upper primary education.
1968	Rao, India	Status of internal and external examination in the schools of Madras.	Examination system is not valid and reliable due to lack of variety of questions.	Secondary Education.
1967	Bose et al., India.	Improving evaluation in the educational system of 1960s.	Curriculum should smoothly link education process content in question papers and the choice of questions for students.	Higher education.

Studies Related to Constructivism and Assessment

Constructivist classroom assessment is the thrust of the present study and hence the researcher has identified umpteen numbers of studies both in India and abroad linking constructivist classroom assessment protocols and enhanced achievement of the students. The relevant review reports are given here.

Bose et al. (1967) studied the system of education during 1966 and 1967 collecting data from 48 principals, 266 college teachers and 31 University teachers and 20 resource persons with a special focus on improving examination system. The

study stressed the need for a smooth curriculum that linked the three major processes which include educational process, content coverage during question setting, and adequate choice for the students.

Two researches conducted in Uttar Pradesh and in Chennai (old Madras) among the school teachers and their contributions in making question papers found that the questions constructed by teachers for summative and formative evaluation were limited to knowledge domain only. The evaluation system of school education was not reliable and valid as there were not enough different questions that tested different aspects of learning. The focus of evaluation minimized to single domain that is knowledge. Teachers were not given training in educational assessment and their knowledge on blueprint in test construction, setting proper objective is for different questions was abysmally low. These studies revealed the necessity of establishing innovative processes for evaluation (Tewari, 1975; Rao, 1968). This finding significantly divulges the need of present study.

An educational research conducted in India in 1977 to find the attitude of teachers, students and parents on examination using a scale and found that the existing system had both pros and cons but negatives outweigh the positives. The study revealed that teachers, students, and parents sought for a better examination system. Examinations do make positive impact among the teachers and other stake holders on curriculum and methods of teaching but lead to the notion of irrelevance of educational process. There was a forecasting for the deterioration of human values and restructuring teacher role in assessment. A research on School based assessment practices that found the teachers lacked knowledge on proper assessment and the teachers focused more on methods of assessment and not on achievement of students. (Summer, 1985; Sinha, 1983; Sinha, 1977) These results are evidently pointing the research gap in the area of present research.

Researches on the classroom assessment practices in Greek primary schools, and in primary-upper primary-secondary schools in New Zealand and in Denmark revealed the fact that assessment strategies are to be revamped in a process based approach. These studies followed the mixed model investigation incorporating

questionnaire observation and interview. The study conducted in Greece presented a general picture of assessment procedures in a typical Greek primary classroom. The research finding revealed that there is strong relation between teaching, learning and assessment in the primary classroom. Teacher role in planning and practicing assessments is crucially important. The assessment systems are weak and prevalent systems of assessment methods in schools must be reconstructed. The practicing approaches are significantly lacking teacher initiatives for continuous and comprehensive evaluation. The weak assessment methods in the classroom even impacted negatively on the total educational assessment patterns of the education scenario of country, the study conducted in Denmark revealed. (Egelund, 2005; Crooks, 2002; Maurommatis, 1996; Tillema & Sejers, 2011).

A research pursued by Brown and Hirschfeld (2008) revealed that the summative or formative assessments made the learners accountable but not the schools. The classroom assessments were not at all enjoyable, but burdensome to the learners. The learner centered assessments are essential to follow the constructivist approach. The research was carried out to find the student conceptions of assessment among secondary school students in New Zealand. These results support the essentiality of the present research.

A study on the perception of students and faculty members on evaluation procedures in higher education in Afghanistan revealed contradictory perceptions among students and teachers. While analyzing the perceptions, it is found that faculty preferred both traditional and parallel methods of evaluation where as students were preferring progressive and semi formative procedures and they also felt that faculty members lacked training in evaluation and assessment. Students liked unbiased ongoing classroom assessment without any discrimination. They argued for the integrative use of formative and summative assessments in an active and continuous manner with adequate slots for self assessment (Musawy, 2009; Brookhart, 2010). These studies followed the mixed model incorporating observation, focus group discussion and questionnaire for collecting data.

The strength and weakness of school based assessments are studied by researchers in Canada, Zambia, Nigeria, Bhutan and Bangladesh realized that assessment strategies are not up to the need and must be revamped with learner centered outlook. The positives of the evaluation system included proper involvement of teachers in teaching-learning processes, and affords on positive and negative feedback on teaching. The negatives included lack of teacher time, and teaching aids. Teachers' roles in designing evaluation strategies are very limited. Careless participation in evaluation processes by large number of students, irregular student attendance, and improper monitoring by the teachers too were listed as negatives. The study from Bangladesh identified the positives of examination system of the schools in the country as purposeful, useful, and perfectly planned. The negatives are like inadequate classrooms, teachers and class periods. The pattern of examination is not constructive in nature, but behaviourist. The negligence of learner capacities is the mostly identified common disadvantage of presently practicing assessment system in schools. The study from Bhutan study revealed moderate agreement in classroom based and state mandated assessment. School based and state mandatory assessment protocols are not congruent at many situations, the study explained. The study in the elementary and secondary schools of Canada revealed some exhaustive features in assessment. There are deviated assessment methods in schools. Excessive summative and least number of formative evaluations are the peculiar feature of evaluation and there were many impediments for self assessment practices in schools in Canada. A research conducted by National University of Nigeria found that majority of students and teachers preferred electronic examination that the paper pencil tests. There is significant urban and rural difference on this opinion and urban students and teachers are favorable towards electronic examinations rather than their rural counterparts. The study of Piaw (2012) also revealed that the computer test was more valued as there was no significant difference in the result of students in computer based and paper pencil test on repeated measurement and the study further claimed that computer based test could be used as an alternative to the paper and pencil test because it is more constructive in nature. There are influencing factors like decreased malpractices, wide coverage,

interests and enhanced participation of students and accurate and time bond result declaration (Piaw, 2012; Ajadi & Inegbediou, 2011; Parrin, 2011; Kaombwe, 2010; Luyten & Dolkar, 2010; Volante, 2010) These studies collected data on the variables either from students or from teachers, school administers and experts through different methods like achievement tests, perception inventory, participatory observation, semi structured interview, and in depth comparison of perception.

Teachers should be oriented towards continuous assessment. Perception attitude and actual practice of continuous assessment in English language is studied and identified that organized assessment strategies are effective than the formative evaluation. Systematic conduct of continuous assessment is enhancing the English language skills of learners. The teachers had a positive approach to use multi-various assessment methods and reinforcement in classroom. The effective teaching will be resulted by proper methods of assessment. The constructivist assessment needs appropriate supports from schools' eco system. (Aziz, 2014; Jonah & Mercy, 2014; Exo, 2013; Young & Jackerry, 2014). The studies followed mixed model analysis incorporating achievement test in English, document analysis, and semi-structured interview

Appropriate assessment helps students to understand their learning progress, even though they did not prefer summative assessment. Students prefer shorter assessment methods and feel that assessment should be accurate. Students are favouring assessments that attend their responses. This response of students supports the necessity of constructivist classroom assessment strategies. An educational research conducted in Malaysia revealed that the teachers have high level of understanding and readiness towards school based assessment but the workload of teachers was found to be very high. Workload of teachers negatively affects the meaningful use of classroom assessment. The workload of teachers has significant relationship on planning and practice of appropriate and timely usage of constructivist classroom assessments. (Macmillan & Tuner, 2014; Semsuddin & Rengswami, 2014; Piaw, 2012)

Most of the teachers check the relevance and adequacy of tools used for assessing students. The formative assessments are designed not by teachers and so

they cannot check the adequacy of formative test. Teachers practiced assessment moderately even though planning was high. Most of the teachers used assessment in tune with learning outcomes and very few teachers used self constructed assessment tools due to lack of confidence and most of them preferred written test for assessing children. A study from Fiji revealed that more than half of the in service teachers stressed the summative assessment where as the most of the in service teachers felt for both formatives and summative assessments. Most of the pre-service teachers felt summative are more important. The inadequate knowledge of teachers regarding formative assessment led to mechanical awarding of marks by teachers without considering the efforts of the students. These results reveal the need of training for teachers on methods of evaluation and assessments. Teachers do know that comprehensive evaluation is to be conducted continuously in 3 to 4 weeks interval. Most of the teachers gave importance to the cognitive domain neglecting the other domains. The CE is not replacing the classroom assessment strategies. (Abdulla et al., 2015; Dayal & Lingerm, 2015; Lislely, 2015; Modupe & Sunday, 2015) These findings are negotiable to support to the present research, which is with the objective of developing classroom assessment strategies.

The constructivist assessment strategies and their impact on student learning has been studied by scholars working in different parts of the world including US, Canada India and United Kingdom. The studies were conducted with secondary, higher secondary and ESL (English as a second language) students of these countries. All these studies point to the positive impact of constructivist assessment procedures impacting the acquisition, motivation and participation of the students overtly substantiating the validity of the present study. These studies are held between 2020 and 2024 have specifically mentioned the constructivist assessment procedures especially the peer review, project based learning, reflective journal, continuous feedback and self assessment strategies impacting both the oral and written English of the students besides enhancing better motivation, participation, learning outcomes and acquisition of English language of the students. The study on teacher perception on constructivist procedures provided more meaningful insights into the progress of

the students. (Sulaiman & Rahman, 2024; Jasrial & Zaim, 2023; Martinez, 2022; Thompson, 2021; Williams, 2020)

The concern on classroom assessment has been a pressing concern ever since the post independence, an interesting fact revealed in the studies of fifties and sixties in India. The key segments of education including primary, secondary, and tertiary education have been concerned about these diverse formats and functions of evaluation and it is pertinent to note that many scholars have raised their concern about the limited information generated by these high stakes conducted in schools and colleges.

Table 2

Meta Analysis: Constructivism and Achievement

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2024	Nazim et al.	Constructivism and Student Centered Pedagogy	Gender did not have significant impact in achievement of Students	Higher Education
2024	Chen	Constructivism and reading	Constructivist learning improves comprehension	School education
2024	Le and Nguyen	Constructivism and reading skills	Improves reading and critical thinking	Higher education
2024	Jun et al.	Speaking skills and rubric based evaluation	Stood strong in certain areas of the rubric	Higher education
2024	Ercazip	Formative assessment in relation to teachers experience, degree and assessment literacy	FA practices not impacted by degree, experience and assessment literacy	Higher education

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Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2023	Markel	Formative assessment and online metacognitive scaffolding	Better engagement and better achievement of the students	Higher education
2022	Popham	Formative assessment and their limitations	No rights size reporting and too many evidences	School education
2021	Orak and Alkhresheh	Constructivism and twenty first century learning skills	Led to ownership and self driven attitude among students	School education
2021	Shore	Social constructivism and gifted children	impacts leaning outcomes	School education
2020	Sultana and Jamal	Perception of university students of constructivist evaluation	Address the gap in knowledge of the students	Higher education
2020	Vu	Constructivism and Intercultural Competence	Enhanced the Intercultural Competence of the Pre-Service Teachers in Vietnam	Higher Education
2019	Islam	Constructivism and questions	Led to the shift from lecture from activity	School education
2018	Osondu, Arabia	Constructivist instructional strategies and academic achievement in computer science.	Students in constructivist classes scored higher than their counterparts in traditional classroom.	Comparative analysis

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2018	Benamon and Guerroud, Algeria	Constructivist professional development of middle school teacher	Developed conceptual and practical knowledge of teachers	School education
2017	Sandhu	Constructivist approach and academic achievement in relation to the intelligence of elementary students in biology.	Led to higher level of academic achievement and increased achievement.	Elementary education.
2016	Busturk	Implementation of constructivism in pre service primary teachers.	The knowledge of primary teachers on constructivism is general especially in its theoretical background but they know about it as a teaching and learning approach.	Primary education.
2016	Qarareh	Constructivism and teaching science	Developed scientific thinking among student	Experimental study
2016	Berry et al.	Constructivist assessment and previous experience of teacher	Teachers with previous experience had better knowledge and they perform better than teachers without experience	School education
2015	Thajiyamaizi et al.	Constructivist guidance in difficult concepts in biology	Constructivist guidance made difficult concepts in biology simpler for students	Science education.

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Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2015	Karaduman and Gultakin	On constructivist learning materials and academic success of students.	On Constructivist materials.	On Constructivist materials.
2015	Ayas and Sekere	Constructivist learning approach and students academic achievement.	Significant improvement in students academic achievement than when they are in traditional classrooms.	Comparative analysis
2015	Gundogdu, Turkey	Constructivism and multi assessment strategies	Positive class management authentic learning activities	School education
2014	Jablan and Kaya.	Score of the pre service teachers taught in constructivist approach and their learning styles	These students had high self evaluation scores than the assimilating students.	Impact analysis
2014	Sidhu	Comparison between constructivist and behaviourist classroom.	Learners are actively involved in knowledge construction in learners centered classroom.	Comparative analysis.
2012	Skamp and Peers	Constructivist 5E model and its impact on teaching science.	Impacted greatly on the performance skills in Science.	Impact analysis.

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2012	Zain et al.	Constructivism and student centred learning in mathematics	Constructivism enhanced achievement and problem solving skills of the students.	Impact study
2012	Bay et al.	Constructivist effect on the problem solving skills and meta cognition	Task based constructivist approach has positive effect on problem solving and metacognitive skills of students	On metacognition
2009	Kim	Students preferences for constructivist and behaviourist procedures and the Teachers centered classroom.	Students preferred constructivist classrooms to traditional classrooms.	Impact study.
2009	Solso	Effect of constructivist approaches in developing cognitive skills and achievement.	Better achievement and cognitive skills in constructivist classrooms.	Impact analysis.
2008	Oguz	Perception of the students on constructivist learning activities.	Constructivist activities led to more student success and positive perception among students.	Impact analysis.
2007	MaCrey	Constructivist approach and the academic achievement of social studies skills	Enhanced academic participation, achievement and skills in understanding social science	Social science education

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2007	Dogru and Kalendar	Comparison between traditional and constructivist methods of teaching.	Students in constructivist classrooms performed better in knowledge construction.	Comparative analysis.
2006	Kose	Portfolio assessment and learner autonomy	Enhanced critical reading skills of the students	Higher education

Studies Related to Constructivism and Achievement

In researches conducted on 10th standard mathematics students who were taught in constructivist learning and in traditional behaviourist learning environments, it is revealed that the students who were taught in constructivist learning environment have significantly enhanced their understanding and application abilities than the other group. Learners' skills and abilities are significantly related with the learning environment that they experience. Constructivist assessment enhances better learning. The constructivist teaching methods and evaluation are learner centered where students are actively involved in the process of knowledge construction. There is research evidence to state that the constructivist methods of teaching and assessment have high impact on the science performance skills of the students. Students who learned through constructivist methods performed better in relation to knowledge than those who learned through traditional methods. The studies revealed that constructivist teaching strategies are producing relatively high student friendly learning environment. (Qarareh, 2016; Sidhu, 2014; Skamp & Peers, 2012; Calik, 2011; Dogru & Kalendar, 2007; Kim, 2009)

Some of the reviewed research studies conducted in different countries in different periods recognized the student friendliness and effective support of constructivist teaching and assessment approach. The studies of Shore (2021), Kauts

and Sikand (2019), Osondu (2018), Solso (2009), and Oguz (2008) revealed the skills of English language are significantly different among the students who taught with the constructivist method than those who taught with behaviourist method. The students achieved better cognitive skills and achievement when taught using constructivist approach. The constructivist learning activities enabled the students to become more successful and to develop positive perception.

Scholars have explored the constructivist approach and the academic achievement of the students in subjects like biology mathematics and social science. It is found that constructivist approach contributes significantly to the higher level of academic achievements with primary students in biology. With regard the students in the Middle East context. The achievement in mathematics and problem solving skills were found to be enhanced when these students were implemented with constructivist teaching learning methods. In a similar vein, the academic achievement of the students improved crucially, when they were presented with constructivist procedures, in comparison with students who were implemented with traditional teacher dominated classroom strategies. Besides maths and biology, the students have also marked significant improvement in Social Studies skills and in academic achievement when they were implemented social science with constructivist teaching learning strategies inside the classrooms. (Sandu 2017; Zain et al., 2012; Ayas & Sekere, 2015; MaCrey, 2007)

Research was also done on the relation between learning materials based on constructivist philosophy and the academic achievement of the students. With the implementation of constructively rigorous learning materials, the academic success of the students increased significantly. However, while implementing difficult and complex concepts in biology which were difficult to implement inside the classroom, it was found that the constructivist approach had a special impact in converting difficult concepts simpler for children. (Karaduman & Gultekin, 2015; Thajiyamaizi et al., 2015)

The research on the level of constructivist awareness of the pre service primary teachers and the problem solving and meta cognitive skills of the students,

revealed that the level of awareness of these teachers on constructivist philosophy is general in nature and that their theoretical knowledge on it is very limited, but they are found to be very positive about the constructivist procedures as teaching learning approach. Similarly, while tracking the metacognitive and problem solving skills of the students and its link with the constructivist learning approach, it is found that these students scored higher in problem solving and metacognitive skills in comparison with students who were implemented with traditional teacher dominated classroom strategies. (Busturk, 2016; Bay et al., 2012)

Research was conducted in Algeria exploring the link between Constructivist Professional Development Programmes and the Middle School English teachers analysing the assessment rubric, observation notes, project presentation, Professional Development Journal, and post program reflections of the participants. The study revealed the effectiveness and validity of constructivist educational program in developing conceptual and practical knowledge, and its edge in addressing the misconception, enhancing the level of satisfaction, will power and self confidence of the teachers. The study also posits professional development journal as a self or peer assessment technique and for developing conceptual and practical knowledge and to meet the teacher's cognition. In short, the study established the role of constructivist education programs in the professional development of the teachers. (Benamon & Guerroud, 2018)

Research has been conducted linking (Berry et al., 2016) the level of assessment literacy of the teachers in terms of their previous assessment experience and to understand the factors promoting or preventing them in implementing the assessment and the study found a significant difference between teachers and those teachers who research and write about language testing and assessment. The study also pointed to the minimal training given to teachers and their low interest in theoretical underpinnings embedded in constructivist assessment protocols. The assessment practices of the teachers were influenced by their past learning experience and they develop and improve their assessment strategies by learning from each other. Another study explored the effectiveness of multiple assessment strategy and

constructivist learning atmosphere in the perception of the pre service teachers in a Public University in Turkey. The mixed study tracked ninety eight third year pre service teachers attending the session on class management in the universities. Most of the students acknowledged constructivist classroom with its authentic learning activities used during the instruction. The open question used inside the constructivist classroom yielded both positive and negative responses but the participants found the constructivist assessment inside the classroom positive especially with the learning by doing strategies employed. The study which explored the edge of alternative assessment protocols over the traditional assessment strategies indicate the importance of alternative strategies especially in addressing the misconception and the gaps in their knowledge. Research also points that traditional assessment strategies are inadequate to assess the skill and competence of the students accurately and the scores deduced did not tell about the progress, or the individual strength and weakness of the students and it also point to the constructivist alternatives as an authentic way out from this limitations. Last study explored the constructivist evaluation and the perception by the students of the university and the study found that the constructivist evaluation made them take responsibility and allowed them to understand the weakness and strength of the students and learner autonomy but they opposed paper and pencil test. Regardless of tests, evaluation and grading students favoured pass or fail option in evaluation (Singh & Singh, 2022; Gundogdu, 2015; Sultana & Jamal, 2020).

A study conducted in Cuckrova university in the year 2005-2006 on the effect of portfolio assessment on critical reading and learner autonomy and on how the students feel about the portfolio assessment incorporating techniques like interview, focus group discussion, critical reading checklist and the study revealed that portfolio has a significant impact and it enhances the critical reading skills of the students and foster learner autonomy in preparation of the reading class in future. (Kose, 2006)

Researchers studied the role of constructivist approach in preparing students to be adept in 21st century demands in comparison with the other

educational philosophies and the study found that the constructivist self driven activities and ownership in learning enabled the students to achieve the goals set for 21st century. The study also pointed to the procedural link between constructivism and 21st century expectations. The researcher also proposed a constructivist design for ELT in 21st century besides defining teacher and student in the in the literary context. Another study explored the theory and practice of communicative English teaching and application of constructivism for developing communication skills of the students of Bangladesh. The study specially focused on constructivist scaffolding, cooperative lesson plans and on activity based classrooms. Study also cautioned to ensure proper seating arrangement and the need for teacher training. The last study explored the role of constructivist approach in English as a Foreign Language to build intercultural communication in Indonesia through the task based constructivist approach as its theoretical backgrounds meaningfully integrating local and target culture in a process based, task based activities that are authentic and collaborative. (Orak & Al-Khariesh, 2021; Islam, 2019; Vu, 2020)

A research was conducted to assess the speaking skills of the students who studied English part two at the University of Swats, taking a sample of sixty five students from two intact classes employing quantitative approach. The study observed the presentations of the students using competent speakers' rubrics like relevant supporting details, voice variety, grammar and pronunciation, dependable language and the study found that most of the presentation observed using the rubric were below the satisfactory level. However, it is to be noted that these presentations were good in areas like selecting and refining the topic, conveying thesis and in non verbal cues during the presentation. In a similar study where the effect English dubbed Chinese movies for ESL listening skills and the levels of anxiety in English language teaching was studied and the study revealed that it enhanced the auditory comprehension and lowered the affective filter thereby reducing the anxiety level of the students during the instructional procedures. Twenty four students from a private

Chinese secondary schools in Malaysia were used for the purpose of the study. (Chen, 2024; Jun et al., 2024)

Recently a study was conducted linking the formative assessment practices and the perception of English language preparatory school instructors at tertiary level. The study was done in a mixed method mode and it came up with interesting findings. Most of the teachers used formative assessment mainly to monitor the students progress or to help them internalise the learning process. It also increased the student involvement with sufficient feedback by the teachers along with creating interactive classroom culture. It also pointed that the formative assessment practice was not impacted much by the experience, degree and the assessment literacy of the teachers being studied. Formative assessment was also studied in the context of online metacognitive scaffolding given in the academic English writing. It was found that the formative assessment involving ongoing feedback to students to guide their learning has been instrumental in promoting student engagement, thereby increasing the academic engagement and foster greater metacognitive awareness as part of the process. Contrary to all these interesting insights on formative assessments, another recent research stressed the shortcomings of the formative assessment. The study listed the major lapses of formative assessment as lacking the right size reporting, needing evidence based approach to substantiate the points made, the issue of content representativeness and the problem of too few or too many evidences making valid confusions on student problematic. It is also difficult to specify how a teacher is trying to make necessary instructional changes based on the findings of the assessment. (Ercazip, 2024; Markel, 2023; Popham, 2022)

Research was conducted exploring EFL teacher's student centred pedagogy and the assessment practices and the associated challenges. The study used descriptive survey mode, questionnaire and interview employing seventy three faculty members. Research studied the response of the teachers on student centred pedagogy and assessment practices based on their gender, experience, degree and specialisation and the study found that most of the teachers used students centred pedagogic procedures and it was also found that gender did not have any impact on

their use of student centered pedagogy and assessment. Similarly, in another study on teacher made writing assessment instruments exploring the development of assessment instruments of quality based on genre, class practices in the East Java University employing ten students, three writing teachers and two trained raters. The study found that most of the teachers used valid formative assessment instruments of high degree of inter rater reliability which in turn led to the assessment literacy of the teachers. (Nazim et al., 2024, Le & Nguyen, 2024)

The researcher has reviewed various studies conducted on constructivism in different parts of the world. The review indicated the enormous diversity in these studies. Besides the diversity of thrust, subject, the areas of investigation and location of the enquiry, these studies clearly point to the significant edge of constructivist approach in enhancing the achievement of the students. These studies, distributed in different points and transcending geographical boundaries, have endorsed the constructivist design in enhancing teaching learning process and better teacher student relation across the segment of education and subjects prescribed for the study in schools.

Table 3

Meta Analysis: Constructivism and Teachers

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2024	Al-Obaydi	Constructivism in English language class room	Challenges include conceptual, pedagogical, cultural and technological	School education
2023	Smith and Jones, USA.	Implementation of constructivist pedagogic practices of middle school teachers in urban schools.	Signs of variation in the actual implementation of constructivist practices.	Quantitative analysis.

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2022	Allen	Constructivism and Learning theories	Impacts, pedagogy, class room layout and educational technology design	School education
2021	Gracia and Rodriguez, Spain.	Belief and practice of primary teachers on the implementation of constructivist approach in teaching maths.	Teachers with more conviction about constructivism tend to implement more learner centred activities leading to deeper conceptual understanding.	Primary education.
2020	Lee and Chang	Understanding and implementation of constructivist pedagogic practices of middle school teachers in urban schools.	The teachers showed significant variation in the actual implementation and they also pointed to the pressure of time and test.	Quantitative analysis
2020	Brooks and Gibson	Constructivism and digital competence	Effective in developing digital competencies	Higher education
2018	Perere and John	Constructivist teacher self efficiency and belief for teaching mathematics in relation with enhanced student outcomes in mathematics.	Self sufficient teachers tend to adopt constructivist teaching learning methods leading to improved student outcomes.	Primary education.
2017	Al-Johani.	Constructivism in the context of foreign language teaching exploring interaction among foreign language, teachers and learners.	Constructivist strategies foster better engagement and understanding among learners and they are more active in learning process.	Foreign language

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2017	Hsu and Chan	Constructivism and science education in middle schools.	Constructivism has positive impact on the students cognitive structure and improved understanding and retention of science concepts.	School education.
2016	Kim and Hannafin	Constructivist approach and teacher belief about involving students of early childhood and high school in the development of mathematics.	Constructivist approach enhances critical thinking across the age and it moved from disposition to actual practices in critical thinking.	School education.

Studies Related to Constructivism and Teachers

The research on constructivist professional development programs for teachers has given interesting insights for the stake holders. This longitudinal study using twenty suburban schools revealed that the teachers who participated in constructivist workshops showed signs of improvement in implementing constructivist teaching learning methods which enabled them to achieve enhanced student engagement and improved critical thinking skills. Constructivist research held in US among early and middle school teachers using teachers from urban and semi urban and from different socio economic locales point to interesting findings. Two studies held in US especially with middle school teachers, found that though the teachers are familiar with constructivist principles, but there was significant variations in their actual practice. Similarly, the teachers who actively implemented constructivist methods informed higher student engagement, deeper understanding of the content and improved learning outcomes. However, both these studies point to time pressure as the key factor hindering the constructivist practices in the classroom.

The primary and elementary teachers have a different story to tell here. A study held in Spain focusing on primary teachers of mathematics found that these teachers of maths who maintain strong conviction about constructivist practices tend to implement more learner centred activities and constructivist practices aimed at deeper conceptual understanding among students. Another research, studying fifty elementary teachers from diverse socio economic background found that in spite of maintaining positive belief about constructivist pedagogic practices, the implementation varied greatly with middle and primary teachers. This study also pointed to the pressure of time adversely impacting the constructivist schemes negatively. (Gracia & Rodrigues, 2021; Lee & Chang, 2020; Smith & Jones, 2023; Allen, 2022; Al-Obaydi, 2024)

Analysing the constructivist engagement in digital space, a researcher has explored teachers and their professional learning practices in digital environment, especially as E-professionals, and the study found that constructivist professional learning models were effective in helping teachers to develop digital competence and the teachers who were engaged in constructivist professional development were found to be better equipped to integrate digital tools in their profession to provide better learning experience for students. (Brooks & Gibson, 2020)

Many studies have (Kim & Hennfin, 2016; Hsu & Chan, 2017; Johan, 2017) pointed to the edge of constructivism in implementing Maths Science and Foreign languages. The study on mathematics and constructivist approach especially the personalized teacher belief about teaching, involving students of early childhood and high school in the development of maths found that constructivist approach enhanced critical thinking skills across age groups and they could actually move from disposition to actual abilities. As far as science teaching is concerned constructivist model has impacted the cognitive structure positively and the students showed improved understanding and retention of scientific concepts and also developed more sophisticated views on the nature of scientific investigations. Specially emphasizing the relevance of the present study, a research exploring language teachers and learners and their interactions in language teaching context, stressed the importance

of constructivist principles in foreign language teaching as they foster better engagement and understanding among learners. Besides language learners were found to be more active in the learning process which in turn led to improved language acquisition and communicative competence. (Al-Johani, 2017)

Studies are conducted on the role of teachers in constructivist classrooms doing a facilitative role for making the learning teaching process effective. These studies favour active role of the students and the passive role for the Teachers conceiving, designing and implementing engaging activities for the students in the classrooms. A few studies have pointed to the low level knowledge among teachers on constructivism as an educational theory and praxis.

Table 4

Meta Analysis: Constructivism and Students

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2023	Shuhno et al.	Constructivist pedagogic procedures and attitude and achievement in mathematics.	Enhanced attitude towards and academic achievement in mathematics.	Maths education
2023	Chan and Elliot.	Constructivist belief and practice impacted the attitude of students towards science.	Enhanced attitude of engagement towards science positively.	Across education spectrum.
2023	Frazer et al.	Constructivist approach and the attitude of students on science.	Constructively rigorous methods reduced the anxiety of students and encouraged positive attitude among them.	Bi National study.
2023	Zajda	Social constructivist approach and the motivation of students of diverse educational settings.	Led to enhanced motivation and positive attitude among students.	Higher education.

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2022	Burcu	Attitude of students on the impact of constructivist learning environment.	Lead to higher student engagement and positive attitude.	Higher education.
2021	Kovacs	Constructivism and language pedagogy	Constructivism addresses the evolving dynamics of knowledge transfer in digital age	School education
2020	Perrera and Gunavardhana, Sri Lanka	Attitude of humanity students towards constructivist learning approaches in higher education	Students developed more positive attitude and became more engaged in the course work.	Higher education.
2019	Liu and Chan, China	Constructivist model of teaching and learning and its impact on the attitude of students in higher education.	Students exposed to the constructivist model reported higher level of satisfaction and positive attitude towards learning experiences.	Quantitative analysis
2017	Kapabinar and Atar	Impact of constructivist learning approach in Science among University students.	Students exposed to constructivist approach showed more positive attitude towards science	Quantitative approach.
2016	Balim and Inel, Turkey	Attitude of University students on constructivist learning environment in teacher education.	They found constructivist learning environment more beneficial for Teachers, both for personal and professional development and for developing positive attitude	Higher education

Studies Related to Constructivism and Students

Studies abound linking constructivist learning environment, attitude and motivation of students both in school and in college settings. One such study (Burcu, 2022) Investigated the constructivist learning environment and attitude of students in higher education. The study, incorporating samples of University students, found that constructivist learning environment developed positive attitude and higher level of student engagement. Similarly the study by (Zajda, 2023) explored the influence of social constructivism in enhancing motivation of students in diverse educational setting and the study found that social constructivist methods contributed to enhanced motivation and positive attitude of students towards learning.

Researchers have explored constructivist approach and its impact in implementing science and mathematics in various educational settings, done institutionally and in sub national studies. With regard to teaching science (Frazer et al., 2023) the study argue that constructively rigorous methods have reduced the anxiety of the students and developed positive attitude among them towards science. It also influenced the attitude of students towards science positively as well as energising more involved engagement from the side of the students towards science subjects. The story is similar with mathematics and the study (Shuhno et al., 2023) has shown that the constructivist practices enhanced the attitude of the students towards mathematics and in turn aiding their achievement in mathematics.

Research was conducted in Turkey University exploring the attitude of University students towards constructivist learning environment in teacher education program. It studied the views of one hundred and eighty education majors from the university and the study found that the students who pursued education majors found constructivist learning environment more beneficial for their personal and professional development along with developing more positive attitude towards studies (Chan & Elliot, 2023; Balim & Inel, 2016).

Researches explored (Perrera & Gunawardhana, 2020) higher education and constructivist pedagogic procedures especially in the context of Science and humanities. The study held in Sri Lanka, analysing two hundred and twenty undergraduate students in humanity, found that the students developed more positive

attitude towards their subjects and they engaged more in their course work when taught using constructivist approach inside the classroom. Similar positive impact also could be found with the constructivist teaching procedures in science (Kabapinar & Atar, 2017), exploring the attitude of two hundred students in a Turkish University, found that students who exposed to constructivist learning approach showed significantly more positive attitude towards science subjects in comparison with students who were taught using traditional teaching methods. Besides these two subjects, Chinese students of higher Education, after tracking three hundred undergraduates, have reported that students who experienced constructivist teaching models experienced higher levels of satisfaction and positive attitude towards their learning experience (Liu & Chen, 2019).

Constructivist procedures were also accepted by the engineering students and a recent research conducted with engineering students exploring their attitude towards constructivist approach in technical education, tracking 150 engineering students in Indian universities, found that student expressed favourable attitude to constructivist learning approach as it increased the problem solving skills and understanding of the complex subjects in engineering (Kovacs, 2021).

Researches have been conducted on constructivism and its relative impact on students. These studies have been made in diverse disciplines and divergent segments of education in different parts of the world. Generally all these studies have proved the edge of constructivism in enhancing the attitude, motivation and achievement of the students.

Table 5

Meta Analysis: Constructivism and Writing

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2023	Greyling, South Africa.	Social constructivist approach and creative writing skills of the 9th standard students.	Energised the creative writing skills by triggering cognitive and metacognitive skills of students.	School education.

Year	Name of the Researchers	Study in a Nutshell	Findings	Additional Information
2021	Prasand and Amerian	Constructivist techniques in flipped classrooms and its impact on writing and inter cultural sensitivity of the students.	Enhanced inter cultural sensitivity and the writing skills.	School education.
2020	Bahanagh and Yesrabi	Constructivist educational techniques and their impact on writing and critical thinking skills of University students.	Enhanced writing and critical thinking skill significantly.	Higher education.
2018	Al-Ghazo and Al-Zoubi	Constructivism and writing skills of college students.	Improved writing skills of the tertiary students greatly.	Higher education.
2018	Zulela and Rachmathullah, Indonesia.	Impact of constructivist approach in developing skills of writing narratives.	Improved the ability to write narratives significantly.	Primary education.
2013	Wahyuni, Indonesia	Constructivist models to improve writing skills	Improved all aspects of writing as well as the personal and social skills among students	School education.
2013	Supriyadi	Constructivist materials and writing scientific papers.	Significant improvement in the three areas of writing scientific papers- concepts, interpretation and application	Higher education.
2011	Yigit	Effect of constructivist 5E model on writing skills and the motivation of the students.	Positive effect on promoting writing skills and the motivation of the students.	Higher education.

Studies Related to Constructivism and Writing

Research is made exploring constructivist pedagogic practices and the development of writing skills of students. The positive edge of constructivist procedures is visible across educational sector from pre primary School to University education. The research held in Taveleya University (Yigit, 2011) investigated the effect of constructivist inspired 5E model and its influence in the writing skills and motivation of the students and the study found the model has a positive effect on promoting writing skills and the motivation level of the students. Similarly, a few other studies (Supriyadi, 2013; Wahyuni, 2013; AlGhazo & Alzoubi, 2018) too have pointed to the constructivist inspired models in improving the grammatical performance of the students in the preparatory schools in Middle East and to improve all the aspects of writing of the students in Indonesia besides developing the personal and social skills of the students.

Writing skills of the students and the constructivist sensitive materials too are studied in depth. A researcher has explored the link between the constructively rigorous materials and the enhanced ability of the students to write scientific papers especially its segments like exploration, interpretation and application. Besides, the study also found a significant improvement in achieving the learning outcomes in writing scientific papers by the students with implementation of constructively rigorous teaching learning procedures inside the classrooms.

Regarding the skills of primary children in writing narratives, and developing critical thinking skills of the universities students, studies found a significant link between these skills and the constructivist procedures implemented in the writing classes. These studies conducted in Indonesia and among the primary students and university Students found that constructivist design has improved the ability of elementary students to learn the narrative writing skills and also to enhancing the writing and critical thinking skills of the students significantly (Bahnagh & Yesrabi, 2020; Zulela & Rachmathullah, 2018). Similarly constructivism and its impact in developing the creative and inter cultural communication skills has also been studied in South Africa and other places with students across the spectrum of education.

These studies have found that constructivist design has enhanced writing skills and inter cultural understanding of the students significantly (Prasand & Amerian, 2021; Greyling, 2023).

Ever since the implementation of constructivist postulates in education in general and English language teaching in particular, teachers have employed the constructivist principles in the context of writing skills. The behaviourist predilection for product orientation slowly gave way to the process oriented approaches in implementing writing sessions in the classroom. Compared to other three skills of language like reading speaking and listening, writing teachers have reaped the major benefits of the progressive philosophy and the thinking oriented pedagogic postulates for the benefit of students inside the writing classrooms.

The detailed analysis of these studies has enabled the researcher to have a thorough understanding about the nature, direction and the culture of these studies in the stipulated area. It is pertinent to know that studies abound in the area of evaluation both in the west and in the Eastern countries like India, Bhutan and Afghanistan. But a careful reading of these studies would indicate that these studies focus more on assessment in general or on school based assessment.

Due to the recent formative turn in educational assessment all over the world, many studies have been found on the effectiveness of formative assessment inside the classrooms. Students and teacher perceptions on formative assessment also have been collected indicating a positive edge of formative assessment in all subjects including English language.

These studies also point to the glaring issues in implementing formative assessment inside the classroom. Lack of time, inadequate teacher training and curriculum load, and parental pressure have been cited in many studies. However, all these studies seek to emphasize formatives over summatives in ensuring the overall development of the students and teachers in their academic performance. Even among these studies, investigations linking classroom based assessment and academic performance are very small in number. The present research attempts to bridge this gap in a systematic format.

Chapter -3

METHODOLOGY

- **Ontology of the Present Research**
- **Epistemological Elements**
- **Axiological Elements**
- **Research Questions**
- **Objectives of the Research**
- **Methodology**
- **Tools, Materials and Techniques used for Data Collection**
- **Data Collection Procedures**
- **Procedure and Techniques of Data Analysis**
- **Overview of the Chapter**

METHODOLOGY

Accurate method and design are essential for successful carrying out of any investigation. This chapter explains the design, method, tools, procedure of data collection and analysis adopted for the effective carrying out of the present research work. The educational approaches like constructivist teaching and the assessment procedures envisaged under it are complex and layered. Any investigation into these categories needs to engage with educational, sociological and ideological factors implicated in it. Utilization of different types of research methods are needed to realize the aims of investigation in the areas of constructivist education. Quantitative investigation alone may not suffice to measure adequately the effectiveness and impact of the constructivist classroom teaching and assessment.

The present research is an attempt to validate the possibility of Constructivist Classroom Assessment Strategies. The processes of validation are designed with multiple approaches. Thus, in a sect, the study aims to find out the effectiveness of constructivist classroom assessment strategies on students' English language learning. The study meaningfully blends both qualitative and quantitative procedures for the purpose of data collection and analysis.

Pandhya (2010) detailed "Sequential Explanatory Model" for qualitative research in the book 'Educational Research' and the researcher found the model useful for the present study. The model proposed by Pandhya is specially suited for this study. It is supposed to be one of the simplest models among the mixed method designs. This model favors the collection and analysis of the quantitative data followed by the collection and analysis of qualitative data, but the two stages are integrated at the stage of interpretation. Pandhya (2010) says that 'Sequential Explanatory Model' may or may not have a specific theoretical perspective and it is specially aimed at using qualitative findings in explaining and interpreting the findings generated through the quantitative data. The researcher has opted this model as it is especially useful to examine the unexpected and unanticipated conclusion that may arise from the quantitative data in detail. The simple nature of the model encouraged the researcher to implement this model in his study on the constructivist

classroom assessment strategies in English Language Teaching at the higher secondary level. The constructivist interpretative framework (Cohen, 2017; Cresswell, 2012) has supported to form the philosophical foundation of the study. True to the foundational design of the inquiry, the following sections of this chapter present a nuanced deliberation on the ontology, axiology, epistemology and methodological presumptions underlying the study.

Ontology of the Present Research Design and Approach

The term “ontology” refers to the constitutive elements of an object. It summarizes the essence of an object or thing. It is the metaphysical aspect and naturally it expects the researcher to understand the basics of a phenomenon before he actually sets out to investigate the problem in his hands.

Scholars have recognized different dimensions to the idea of cognition or to the nature of knowing. The realists maintain that the reality exists independent of the subjects or in other words knowledge stands independent of knowing subject. However, the relativists hold that knowledge cannot stand independent of the knower and reality is influenced, shaped, and even formulated by the perspectives, mental design and the philosophical predilections of the subject himself. According to Gill, Jhonson and Clark (2010) ontology focuses on whether some phenomena actually exist independently or not of our knowing and perceiving.

In the present research, the researcher has collected the subjective views of the individual student of higher secondary level on constructivist classroom assessment strategies in the context of teaching English. Unlike the objectivist position, the present research adopts a subjectivist position and collects the subjective views of the participants on constructivist classroom assessment strategies to substantiate the objectives of the research and to explain the research process at various key stages. During the course of the study, researcher found what Saunders, Lewis and Thornhill (2011) has said about the social construction of the reality. In his view social phenomena are created from the perception and consequent actions of those social factors concerned with their existence. Ulladan (2022) in a study on

marginalization and disaffection found that experiences of marginalization and disaffection are not objective but rather the result of an individuals' subjective interpretation of their own reality. The study also underscores that there is no direct access to the real world and it is mediated and socially constructed.

The present study adopts a philosophical position that valorizes relativist ontology. Being true to the relativist ontology, researcher maintains that reality is not objective or independent of the subject instead it is constitutive of the subject. Since subjective reality is taken in to account, the researcher is responsible not to fully depend on any single voice or perception as the authentic one. Instead, he listened to the voices of many and naturally the data collection strategies should enlarge to accommodate diverse voices to make the data collection procedures inclusive and is collected through academically rigorous procedures. As there are many perceptions possible on a phenomenon, many interpretations too are naturally possible making them divergent, dialogical and democratic. The perception, belief and ideological inclinations of the researcher are vital in the progression of the research as these would impact the key stages of the research process. In the present research, the objectivity and subjectivity of learners' response are tested in multi dimensions. The perception on Constructivist Classroom Assessment Strategy is tested in multi dimensions. Hence to do justice to the nature of the study, the researcher has adopted the Constructivist- Interpretive Design which value experiences of the participants and accept multiple views on the phenomenon by the participants. Two philosophical foundations inform the key procedures of the present research. They are Constructivist and Interpretive Design and both the designs tend to disregard the positivist position in the context of knowledge. Charmas (2004), in his first articulation on constructivist design, presents it as a philosophical position between positivist and postmodern position.

Charmas (2004) says that constructivist design disapproves of any obscure expressions, such as jargons, diagrams, conceptual maps as they distract from the grounded theory and views them as an unnecessary attempt to gain power over the people. This design stresses the role of researcher in the study as he recasts life for

capturing best experiences in life. The researcher takes the vital decision with regard to the study and brings in the key questions regarding the tale, value, experiences, priorities, and consequently any conclusion made is nothing but suggestive, incomplete, and inconclusive. The constructivist narrative is more explanatory, discursive, and probing of the individual assumptions and meanings and hence it generally avoids the procedural categories of the positivist epistemology so as to incorporate the beliefs and value structure of the researcher himself.

Interpretivism forms one of the three epistemological positions posited by Bryman (2012) in his quest for common acceptable knowledge, the other two positions being positivism and realism. As a philosophical position interpretivism employs multiple methods and focuses on exploring the meanings to get more understanding about the issue at hand. Collins (2010) states that interpretivism is an offshoot of the idealist philosophical position and it mixes diverse approaches like constructivism, phenomenology and hermeneutics to get at the core of the reality. The key interpretivist assumptions are given under.

- The nature of reality is multiple, relative, and socially constructed.
- The goal of the researcher is to understand and the focus is to the specific, unique and deviant.
- The knowledge generated is relative and the meaning produced is dependent on time, context, culture, and values.
- The desired information to be collected is what some people think and do and what kind of problem they are confronted with and how they deal with them.
- The subject- participant relation is interactive, cooperative and participatory.

The interpretivists focus on qualitative primary data of high quality and validity and it is managed through empathy, honesty and trustworthiness of the participants and they focus on the complexity and not on a single result and they regard details and reality within these details and the subjective meaning of experience which are varied and multiple.

Epistemological Elements

Epistemology refers to knowledge. It deals with what is accepted as knowledge and what is negated as knowledge in a discipline. All knowledge and consequently all realities are contingent upon human praxis and they are constructed through interactions between human beings and the world around him. Knowledge thus created is transacted in a meaningful social context. In the relativist paradigm social reality is never viewed as unitary instead it is perceived as multiple and hence perceived diversely by diverse people who would in turn arrange multiple points of view on a reality.

The study is mooted in the constructivist- interpretive framework and it presumes that knowledge is subjective and it is rooted in individual experiences. This thrust on emergent, individualistic and subjective knowledge is in perfect sink with the ontological relativist position. Hiller (2016) explains constructivist paradigm in knowledge as improving and evolving especially in tune with diverse locale, people and contexts in opposition to the views that knowledge is universal and general.

The present study seeks to understand, explain and demystify social reality considering the multiple perspectives of the participants in various social positions or locations. This would enable people to have their own conclusions based on their contexts and locations. This paradigm supports to minimize the limitations of the research work. In the words of Leininger (1985) the constructivist paradigm presents, documents and interprets people's views from multiple vantage points. Taking cues from the above discussions, the present study attempts to collect data from multiple stakeholders to accommodate the views and perspectives as part of the study. The researcher collects needed data and would often present them in the words of the participants themselves to ensure factuality and authenticity of the positions made.

Axiological Elements

As the branch of philosophy, it addresses the question of values in a research. Saunders (2011) views it as the practice of making judgment on values whereas

Silverman (2013) considers it as understanding the people's opinion on the process of research.

It is a fact that the identification of the topic, the design employed for the study, focus of the research etc will always reflect the mind set and the value structure of the researcher. In other words, the architecture of values the researcher maintains may impact the whole process of research. Direct or indirect influence of value setting of the researcher impacting on the research processes such as tool formation, data collection or analysis must be controlled to produce unbiased research output.

The researcher is a higher secondary school teacher in Kerala state and he has been teaching English for twenty five years in various schools of Kerala both in aided and government streams. Besides teaching, the researcher has also been acting as the resource person for teacher training programmes and as member of textbook development committee of the SCERT Kerala. As a Resource Person of the evaluation workshops held in different parts of Kerala, he has personally witnessed the change and growth in the assessment procedures prescribed for English in HSS in Kerala. In the initial years of High Secondary course, the CE (Continuous Evaluation) activities suggested were disconnected and it did not have serious link with the curriculum transacted. Then the CE activities became little more organic by suggesting process, portfolio and unit evaluation as the three components for evaluation. These changes too did not bring enough to augment the learning of students. The most recent attempt to make instruction and evaluation organically linked was exciting for the teachers and students alike. The state level school cluster meetings focused on this new shift by making the teaching and evaluation seamlessly was accepted by the teachers bringing a little more energy and enthusiasm. Researcher is very much aware of all these shifts and turns in assessment approaches in schools. The researcher presumes that this close awareness will add to the firmness of this research process. The axiological elements acquired through the experiences will support the researcher to pursue the investigation fruitfully.

Research Questions

The present research is developed up on the basic research question that ‘Can constructivist classroom assessment strategies be developed and implemented effectively in the higher secondary English classrooms?’ Another major question upon which the present research was designed is that whether administering constructivist classroom assessment strategies would enhance the achievement in English language and positive attitude towards English language among higher secondary school students. Other than these, the specific research questions that prompted the present research are given under:

- 1) How far the constructivist classroom assessment strategies will enhance the achievement of the higher secondary students in English?
- 2) Can constructivist classroom assessment strategies be organized separately and be validated for English language teaching?
- 3) Can the classroom assessment strategy integrated mode of constructivist teaching enhance the language acquisition of higher secondary school students in English?
- 4) Can a newly developed valid model of ‘Constructivist Classroom Assessment Strategies’ be provided to the teachers community as result of this research?

Objectives of the Research

The study posits the value of constructivist classroom assessment strategies in enhancing the achievement, language acquisition and positive attitude towards English language among students. It also endorses the value of classroom assessment to assess the students using techniques like observation, question, writing, projects and performance based assessment as listed by Fisher and Frey (1965). Thus the study designed with the scope of Developing, Implementing, and Validating the Constructivist Classroom Assessment Strategies for English Language Teaching. Specific objectives of the present research are listed below:

1. To develop specific Constructivist Classroom Assessment Strategies for teaching English language at higher secondary level

2. To validate the authenticity of Constructivist Classroom Assessment Strategies to teach English at higher secondary level on the basis of teachers and experts perception
3. To plan and practice lessons in English for higher secondary school students in presently practicing constructivist mode and in the Constructivist Classroom Assessment Strategies integrated mode
4. To compare the achievement of learners who are treated with the presently practicing constructivist mode (Control Group) with that of the learners who are treated with Constructivist Classroom integrated mode (Experimental Group)
5. To draw inferences on validity of the developed Constructivist Classroom Assessment Strategies by exploring the effect of teaching English in the Constructivist Classroom Assessment Strategies integrated mode in:
 - a. Achievement in English Language Test
 - b. Creative Language Acquisition
 - c. Developing positive attitude in English language learning
6. To explicate the Constructivist Classroom Assessment Strategies in teaching English for higher secondary level on the basis of the research findings

Methodology

Present study is explorative in nature and hermeneutical approaches are employed to investigate and interpret the individual perception based on the experiences. Hermeneutics is an approach in qualitative research that focuses on the interpretation of texts, cultural, and artistic practices, and social phenomena. The researcher also presumes that the Constructivist- interpretive design suits to the topic selected for the study.

Constructivist Interpretative Paradigm stresses meaning generated by each individual on various phenomena and not generally attempting at a 'casual explanation' (Baroundi, (2008). Sandberg (2005) rearticulates it as "social situation can have shared meaning among stake holders and it is the agreed

meaning that constitutes the objective or inter subjective reality". The paradigm also focuses on how human beings make individual or collective sense of the particular world around and engage in it meaningfully. In the light of the views made above the following features are considered to design the methodology of this research:

- The study investigates the lived experiences of the key stake holders and the meanings that they have generated out of this process.
- Hence, methods like Achievement Tests, Observation, Focus Group Discussion and Feedback analysis were used to provide organic inroads into the participants construction of reality. Focus Group Discussion, unlike the structured interview, would arrange a special space for participants for meaningful and organic engagement with the topic or it would allow them to engage in a free association and represent their lived experiences and perspectives on the issue at hand (Leavy, 2014)

The Constructivist Interpretive Paradigm, in tune with the qualitative research framework, attempts to unravel the participant views so as to make them explicit and then the patterns of thought are inductively generated using the qualitative analysis of the data without trying to impose existing framework for the purpose. The present study also focuses on the inductive analysis which will be detailed in chapter number two. The section that follows presents the research design, providing comprehensive information about participants, the data collection strategies and the data analysis techniques used in the research.

Research Design

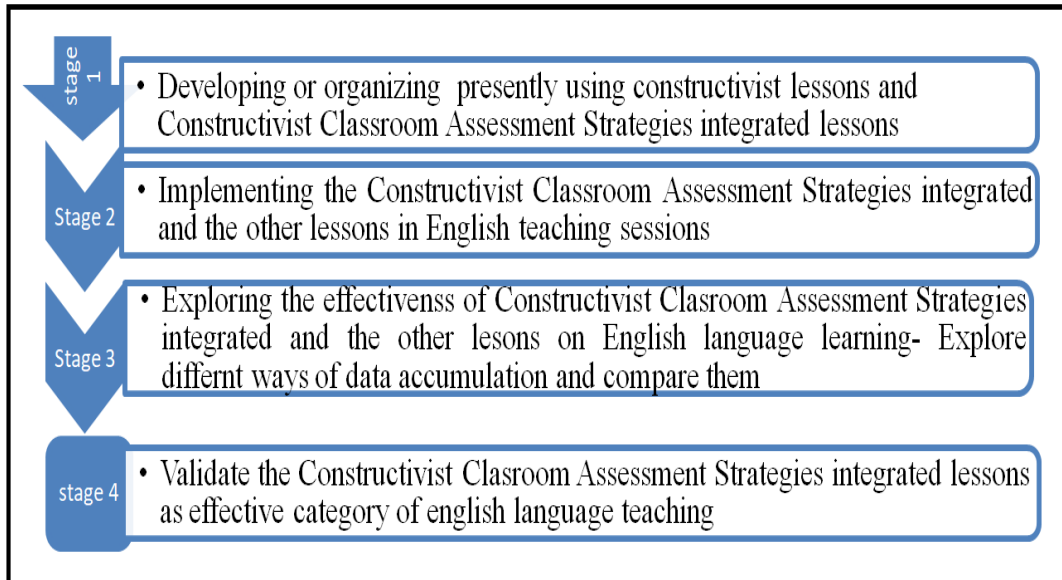
As mentioned above, the present study is explorative in nature and it attempts to develop constructivist classroom assessment strategies for teaching English at the higher secondary level. The research focused on aspects such as:

- (i) Developing or organizing Constructivist Classroom Assessment Strategies for English Language Teaching at higher secondary school level

- (ii) Integrating the Constructivist Classroom Assessment Strategies with lesson plans for Teaching English at higher secondary level
- (iii) Exploring its effectiveness in enhancing language acquisition of students, and
- (iv) Validating the Constructivist Classroom Assessment Strategies based on the multidimensional analysis.

It is pertinent to state that the research review indicates that only a very few studies have been conducted in Kerala on the area of constructivist classroom assessment strategies. The qualitative and exploratory nature of the study has enabled the researcher to get a deeper insight and nuanced understanding about the topic being studied.

The topic of the study is nuanced and complex allowing for fluctuating positions and hence in order to get a clear understanding of the topic, the data has been collected through multiple strategies. This has enabled the researcher to study the topic from multiple angles allowing for richer data sets, which would in turn, allow for a thick description of the identified data. The triangulation procedures employed by the researcher at different stages of the data collection allowed added elements of credibility, trust worthiness and validity of the data. Researcher focused on analyzing the effectiveness of the constructivist classroom assessment procedures as ‘assessment for learning has always been enhancing the academic, linguistic, and motivational elements of the higher secondary students while learning English language. The design of the research process is further illustrated in Figure 1.

Figure 1*Steps of the Explorative Process of Research*

Variables of the Study

The research has explored the implementation and validation of Constructivist classroom Assessment integrated lessons for enhancing language acquisition among higher secondary students. The effectiveness and scope of these plans in English language teaching is experimented and validated through multiple analyses. Hence, the research is designed after considering the ‘constructivist classroom assessment strategies’ as independent variable. ‘Effectiveness of English language teaching’ has been treated as dependent variable of the study.

Sample and Participants

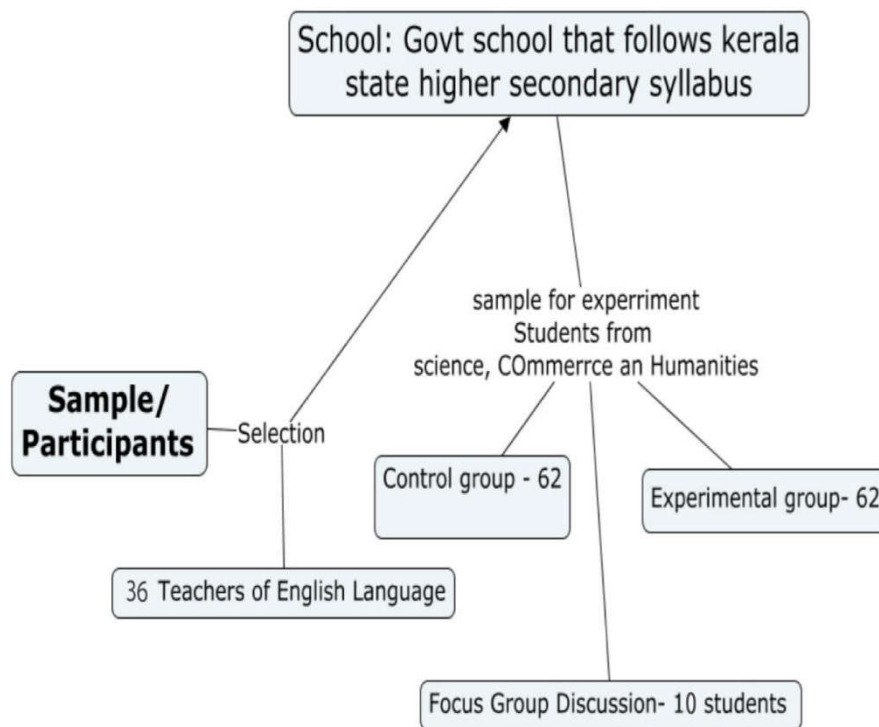
The designated population of the study is the higher secondary school students of Kerala state. The sample for the experimental section of the research is formulated from second year (plus 2) level of higher secondary students. Groups of students were taken from a government school, named Government Higher Secondary School, Kattilangadi, Tanur, Malappuram, Kerala. The school is situated in the sub-urban area of Tanur Municipality, Malappuram district. The school has a total of 180 + 180 students for higher secondary classes; it is 180 in first year and 180

year in second year. The subject of study wise strength of students in the school is 60 each in science, humanities and commerce.

The students for the experimental and control groups were selected randomly from the plus two level 180 students, considering 62 in control group and 62 in experimental group. Student for the two groups were selected randomly from all subjects, providing opportunities of odd-even number basis. Balance of students was not considered for the experimental purpose. Students who are chosen for feedback analysis, Focus Group Discussion, and teachers who are selected to respond on the validity criteria of assessment materials were the other participants of the investigation. The process of sample formation is illustrated in the figure 2.

Figure 2

Sample Selection Procedure



Normally, each stream of students is treated as separate classroom for English language teaching in higher secondary schools. There will be at least one period of 55 minutes duration for English lessons in each class every day. A teacher may handle English lessons for a period in Humanities class, another period in science

class, and another one in commerce class. However, during the stint of intervention, total students were divided in to three different classes, mixing them without considering the stream of study. Thus, the experimental group had 22 science students, 20 commerce students and 20 humanities students. Strength and distribution of students for control group were also the same. So, the N of the final sample both in control and experimental group was 62 students. Details of the sample groups are summarized in the table 6. Researcher is highly acknowledging the cooperation received from the colleagues and principal of the school to frame students as control and experimental group. The reframing of class structure for English teaching session and the conduct of experiment was done with their support without disturbing the authority stipulations for total number of lessons prescribed for English.

Table 6

Details of Sample Groups Formed for the Conduct of Experiment (N=124)

Group	Subjects/Streams of Study			Final Sample
	Science	Commerce	Humanities	Total
Experimental Group	22	20	20	62
Control group	22	20	20	62

Homogeneity of the Sample

The intervention is carried out among the students who were placed in two groups- experimental group and control group. Students to these groups were selected based on their scores of achievement in two former examinations in English. The scores of students in English subject for 10th standard examination and for the first model examination and 11th level were considered for the purpose. Those who scored marks and equivalent grade in between 64% to 94% only are being chosen to form the sample. The students who scored below 64% or equivalent grade and those who scored above 94% or equivalent grade were not selected to form the sample. Selection to the sample groups was purely based on this criterion. The features such as students' family status, financial status, or place of living were not taken into consideration while constituting the sample. So the homogeneity of the sample

groups is assured based on the scores of achievement for English language tests. Totally, 158 students out of 180 were in the plus two classes within the range of the mentioned scores. Out of them, 124 were selected randomly. And from the selected 124 students, 62 each were placed in control and experimental groups.

Research Framework

The framework of research is designed for effective exploration and experiment. The present research is activated step by step. The research steps are detailed as given below.

- Researcher developed Constructivist Classroom Assessment Strategies for English language at higher secondary level
- Researcher prepared Constructivist Classroom Assessment Integrated Lesson plans and the lesson plan on presently practicing constructivist model to teach English at higher secondary level.
- Randomly selected 124 students from Science, Commerce, and Humanities streams were chosen to frame the control and experimental sample groups
- Researcher as teacher planned lessons from two blocks of the text book. Lessons include short story, prose, poem and a drama: Transaction of lessons for 60 days- 60 periods in each group. The lessons are planned from two blocks of the English Course Book for second year higher secondary students of Kerala state. The parts of the book from which the lessons are taken are titled “Flights of Freedom” and “Heights of Harmony.” Both the blocks have four lessons each comprising prose poems and one act play of different length and density. The lessons of the first block include:
 - Three L's of Empowerment, A speech by Christian Lagaarde
 - Any Woman, a poem by Catherine Tynan
 - Matchbox, a short story by Ashapura Debi, *and*
 - Horegallu, a piece of life writing by Sudha Murthy.

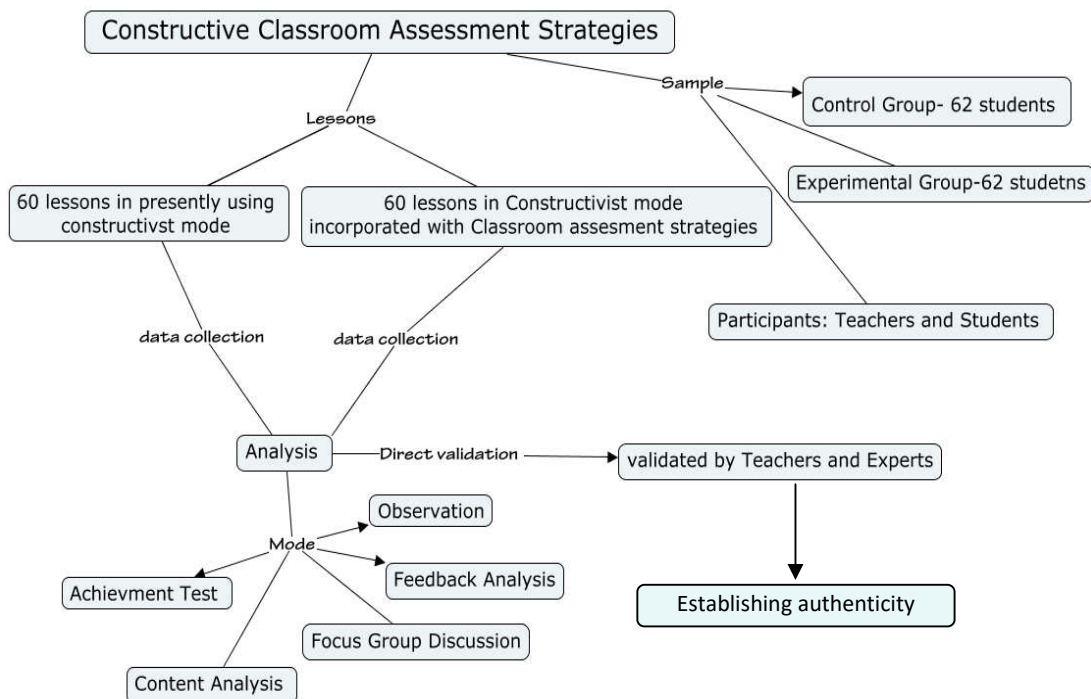
The second block comprising lessons like

- Mending Wall, a poem by Robert Frost

- Amigo Brothers, a short story by Piri Thomas *and*
 - The Hour of Truth, a one act play by Percival Wilde.
- In control group, researcher as teacher transacted the lessons in presently using mode; that is the mode as suggested by the SCERT Kerala and Directorate of Higher Secondary Education.
 - In experimental group, researcher as teacher transacted the lessons in the mode integrated with Constructivist Classroom Assessment Strategies.
 - The responses of students on different tools and materials are collected and analyzed properly
 - The quality and suitability of constructivist classroom assessment strategies are validated by selected teachers/experts

The framework of research is explorative. The experimental part of research is carried out by the researcher as teacher. The frame work of researcher is explained in the figure 3.

Figure 3
Framework of Research



Procedure and Conduct of Experiment

The research commenced with the framing of lessons in the presently practicing mode in school and in the mode integrated with constructivist classroom assessment strategies. Researcher as teacher transacted the lessons in control and experimental groups. The procedure was for 60 days. The lessons from the two blocks of the course book as mentioned above were treated in two different ways, presently practicing constructivist mode and in the constructivist classroom assessment strategies integrated mode, doing justice to the experimental mode proposed in the study.

Data on the effect of teaching English with presently practicing mode of constructivism are collected from control group. Data on the effectiveness of teaching English with constructivist classroom assessment strategies incorporated lessons are collected from experimental group. Multiple methods are used for data collection such as Achievement Test, Content Analysis of the answer sheets, Feedback Analysis (analysis of the feedback provided by students), Focus Group Discussion and Observation.

The collected data are analyzed separately to identify the advantages of using constructivist classroom assessment strategies. The developed Constructivist Classroom Assessment Strategies integrated approach is validated based on the results of analysis.

The modules of the newly developed Constructivist Classroom Assessment Strategies integrated plans are supplied to selected teachers and experts. Their responses are employed for score based analysis. Based on the results, researcher could prove the effectiveness of using Constructivist Classroom Assessment Strategies for English teaching.

Details regarding the tools employed are presented below.

Tools, Materials and Techniques used for Data Collection

The present study, being in the mixed mode, employed both quantitative and qualitative strategies to comprehensively reach at the crux of the phenomenon being studied. Data for the effective carrying out of the investigation is collected by using multiple methods. Data collected qualitatively and quantitatively to find the effect of the developed Constructivist Assessment Strategies and to validate the same. Lesson plans for teaching at the higher secondary classes in the presently using constructivist mode and in the Constructivist Classroom Assessment Strategies integrated mode are the primary materials developed for the investigation. Other tools and materials prepared for the present research are listed here:

1. Achievement test in English language (school subject)
2. Authenticity Appraiser for teachers and experts
3. Content analysis guideline
4. Student Activity Observation Blank
5. Feedback reporting guideline
6. Focus Group Discussion guideline
7. Portfolio of students reporting r

The details of materials are explained below.

Achievement Test

As part of the quantitative data collection, the researcher has conducted an achievement test for a score of 30 incorporating the first and second block of the English course book prescribed for the second year higher Secondary students of Kerala.

Instead of preparing a new blueprint and questions for an achievement test, researcher used the question paper by the directorate of higher secondary education, Kerala to prepare the new question paper. Five former questions papers of the department that are used for summative examinations and model examinations were carefully scrutinized and suitable questions were selected to form the new question

paper. Questions from the previous question papers ensured the authenticity and objectivity of the questions used for the achievement test. Careful attempt is invested to incorporate all types of questions, objective, short and essay type questions. Questions from the mentioned parts of text book only had chosen to frame the new question paper. Thus it is assured that the question paper included only standardized questions and are of approved format. Duration to answer the test was One (01) hour. Details of the achievement test are given under:

- Name of the test : Question paper to compare the Achievement of the students when implemented currently operational constructivist plan and the constructivist class room assessment integrated Lesson Plan.
- Time : One Hour
- Total Score : 30
- Types of questions : Objective type, short answer type, and essay type

Mode of Preparation and Standardization of Achievement Test

No separate Blueprint is prepared for the construction of achievement test. Carefully chosen questions from the previous question papers of the Department of Higher Secondary Education, Kerala, issued for the conduct of second year higher secondary examination in the state were used to frame the test. The question papers used for previous years' summative evaluation and model examination were only considered to take the questions for the achievement test. Thus, the test is competent with the validity and reliability.

Content Analysis

Normally, evaluation of the answer sheets of an achievement test ends with scoring. Here the constructivist method of assessment is employed to evaluate the answer sheets in a different perspective. The researcher has used the technique of content analysis of the answer scripts of the students. The content analysis is used as a Constructivist Assessment Strategy and provided for the objective of assessment as learning.

The content analysis would arrange better and more nuanced data regarding the performance of the students which will not be available with the scores of the achievement test. Content analysis will provide extra insights into elements like: –

- Linguistic
- Attitudinal
- Organizational
- Creative *and*
- Critical thinking skills.

The researcher has undertaken a detailed content analysis of the answer scripts submitted from the control and experimental groups, after finalizing the guidelines to be watchful while analyzing the answer sheets. The indicators for content analysis are selected after considering suggestions in certain books, consultation with scholarly colleagues, experts and with the research supervisor. Multiple levels of refinement is attempted with regard to the development and finalization of the indicators for the content analysis. Researcher has stipulated the following indicators for the content analysis of the answer scripts.

- 1) Creativity in answering
- 2) Critical perspectives in answering
- 3) Self reflexivity in answering
- 4) Reflecting current awareness
- 5) Student engagement with socio economic issues.
- 6) Reflecting original thinking
- 7) Reflecting environmental sensitivity
- 8) Attitude of risk taking
- 9) Willingness to quote the teachers
- 10) Presenting multiple perspectives

The researcher has analyzed the answer scripts of the students keeping in mind the stipulated ideas or the indicators. Each question and the given answer were meticulously evaluated.

Feedback of the Students and Observation by the Teacher

To further ascertain the results obtained through the statistical analysis of the scores of the achievement test in English and the content analysis of the answer scripts of the students, the researcher has also attempted the feedback analysis of the participating students and the observation of the participating students in the research as a part of the processes of validating the constructivist assessment strategies.

With regard to the teacher observation, the researcher has attempted a non participant observation noting down the vital developments and episodes during the session.

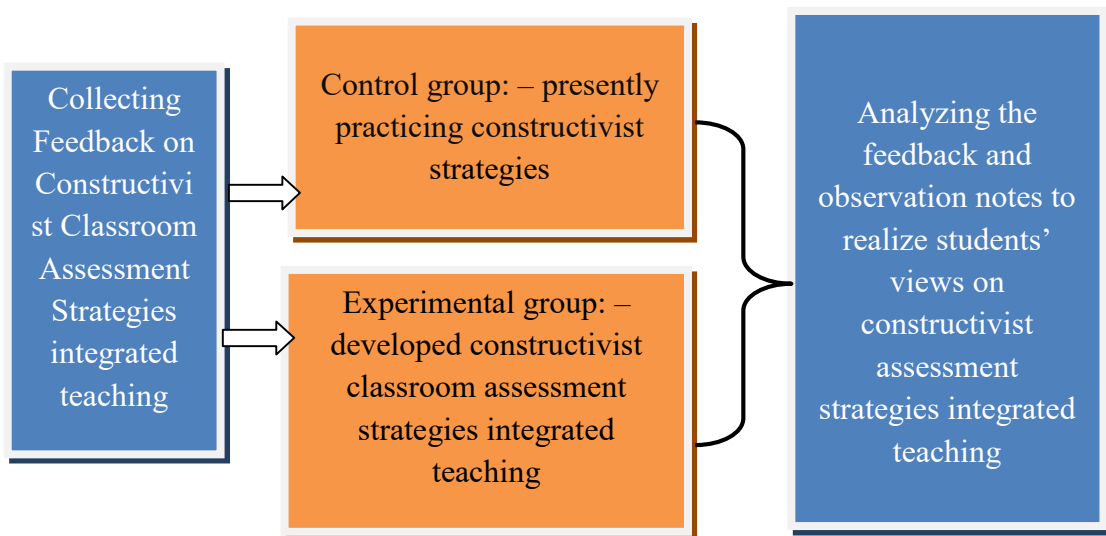
The feedback was collected continuously from control and experimental groups during classroom transactions. As part of the planning and preparation, the researcher has familiarized the components of the schedule in simple language to the students. Interestingly, after the initial surprise and curiosity, all the students took the task seriously and participated fully in the research procedures. Following components were fixed to be included in the feedback schedule to be used by the students and the researcher alike.

- Is the class intellectually inviting?
- Does the teacher track the students?
- Does the teacher use primary and manipulative materials?
- Does the teacher check the previous knowledge of the students meaningfully?
- Does the teacher interact with the students to help them construct new knowledge?
- Does the teacher provide feedback to students?
- Does the teacher employ multiple assessment strategies inside the classroom?
- Is the classroom process oriented?
- Does the teacher arrange group activities inside the classroom?
- Is there space for student reflection after each activity?
- Does the teacher employ diverse activities in the class room?

Details of the feedback analysis are illustrated in figure 4. The teacher observation also made on the same aspects. Teacher silently observed along with the classroom interactions whether the students participate actively or passively in the teaching learning activities. The data from the observation report and feedback analysis are considered together for analysis.

Figure 4

Procedure of Feedback Analysis



Focus Group Discussion

Focus Group Discussion (FGD) as a technique for data collection will enable the researcher to access the lived experience of the participants through their stories and narratives. The technique affords interesting insights as it involves a kind of conversation between the researcher and the participating students. True to the philosophical paradigm of the present research, knowledge produced is co-constructed and hence the insights generated are useful to the stake holders and the system in general.

Focus Group Discussion is a semi structured data collection procedure employed in qualitative research. It allows the researcher to be more flexible and enable him to move beyond the superficial and to try for deeper and nuanced sense of the issue under consideration which would naturally afford rich and thick data for study. Often the FGD allows space for unexplored issues that provide

interesting insights and fresh perspectives on the issue being studied. As part of the planning stage, the schedule of the Focus Group Discussion was finalized listing the key points to be discussed that are relevant for the study. Following these, the key questions to be asked were framed which included both direct and indirect questions. A few probing questions too were set ready in case the participants are ambiguous about their answers. Some open questions too were kept ready so as to enable the participants to extend the thoughts being made in their answers to the questions. The subject matter of the FGD was “the advantages and disadvantages of the presently practicing constructivist classes and constructivist assessment strategies integrated classrooms”.

The piloting of the FGD with 12 students of GHSS Kattilangadi, Tanur helped the researcher to become familiar with the procedure and to decide the questions that are presentable and that are problematic for the students. It also made the researcher more confident about the process as he knew the questions that are working with the students and that are unable to get meaningful responses from the students. Based on these experiences the wordings of a few questions were re structured to make it simple and participant friendly. A few additional questions too were formulated based on these experiences at the piloting process.

The participants were briefed about the process, methods involved and the roles expected of them. Since the researcher is working with the students in the same school, arrangement for the Focus Group Discussion did not create many problems. Twelve participants were randomly selected which would contain students from control and experimental groups equally. Before the exact start of the FGD the procedures were thoroughly detailed to the participants to boost their confidence. The researcher has even demonstrated the process and they were even given freedom to make incomplete sentences or even to express in their mother tongue. The modeling process enabled the researcher to address many of the issues of the focus group discussion during the research. The researcher presumes that through this procedural clarity the validity of the data being generated can be increased highly and the

researcher has also collected the informed consent of the participants before actually moving into the Focus Group Discussion. The focus group discussion was for one and a half hour. To make the process ethically correct, the participants were permitted to use their mother tongue or code switching to the questions posed which ensured detailed and meaningful engagement from the side of the participants. Once the FGD ended, the researcher provided a short de briefing session in which he has thanked all the participants for the time and energy that they have taken for the process. Researcher has also made it a point to tap the theoretical saturation of the process through which all the relevant questions were posed and collected responses of the students.

Data Collection Procedure

The section below details the various data collection techniques employed by the researcher for the present study. Techniques like Achievement Test, Content Analysis, Feedback analysis and Observation and Focus Group Discussion were employed in the study. All these tools were prepared by the researcher himself.

The data were collected from students during the class time. Data from teachers are collected by distributing the tool to them. The procedures of data collection are explained under:

- Collected data from teachers/experts on evaluating the Constructivist Classroom Assessment Strategies
- Conducted Achievement Test before and after the intervention in control and experimental groups: Answer sheets were collected, scored and tabulated for analysis
- The answer sheets of the students of both groups employed for Content Analysis with multiple perspectives
- Collected feedback from students
- Conducted Focus Group Discussion
- Portfolio of observations

Procedures and Techniques of Analysis

Details of the techniques of analysis employed for the present study are given under:

1. Analysis to determine the achievement levels of secondary school students in English language
2. Independent sample t-test to compare the mean scores of achievement in English among the students of control and experimental groups
3. Content analysis of the answer scripts of learners
4. Analysis of the feedback of learners
5. Analysis of the Observation report
6. Reporting of the Focus Group Discussion
7. Score based analysis of the teachers and experts validation report

Overview of the Chapter

Specific plan employed in the present study is detailed in this chapter. The appropriate methods and strategies used have enabled the researcher to collect the data required for obtaining the answers to the research questions posed at the beginning of the study. The chapter briefly outlines the research design, methodology and the operational definitions of the key terms of the title before focusing more on research setting, population and the sample used for the study. The chapter also elaborates on the tools used for collecting data and the data collecting procedures. The qualitative and quantitative analysis used for the study have also been dealt in detail in this chapter.

Chapter -4

DEVELOPMENT OF CONSTRUCTIVIST CLASSROOM ASSESSMENT STRATEGIES AND ESTABLISHING THE AUTHENTICITY

- **The Frame Work of Constructivist Classroom Assessment Strategies**
- **Process of Validating the Constructivist Classroom Assessment Strategies Framework**
- **Establishment of Authenticity of CCAS Integrated Plan for Teaching English Language**

DEVELOPMENT OF CONSTRUCTIVIST CLASSROOM ASSESSMENT STRATEGIES AND ESTABLISHING THE AUTHENTICITY

The first objective of the present research is to develop Constructivist Classroom Assessment Strategies (CCAS) for English language teaching in constructivist mode and to validate the same. The first part of the validation process is to find the authenticity or legitimacy of the developed CCAS. To realize the objective, researcher has organized the CCA Strategies with significant focus to integrate with the constructivist mode of classroom teaching. The same is developed after careful verification of the available texts on constructivist assessment strategies and discussion with educationists. The same is proposed for adjudication by experts and teachers. The details are provided in this chapter.

Constructivist Classroom Assessment Strategies: The Framework

Constructivist Classroom Assessment Strategies for the present study are organized from many of the already using constructivist and post constructivist assessment methods. They are carefully picked up and organized to integrate with the lesson plans to teach English language at higher secondary level classrooms. The design is framed in three phases. They are -

Phase-I Pre-Lesson Strategies: Planning and Preparation

Phase -II Transaction Strategies (During the Lesson)

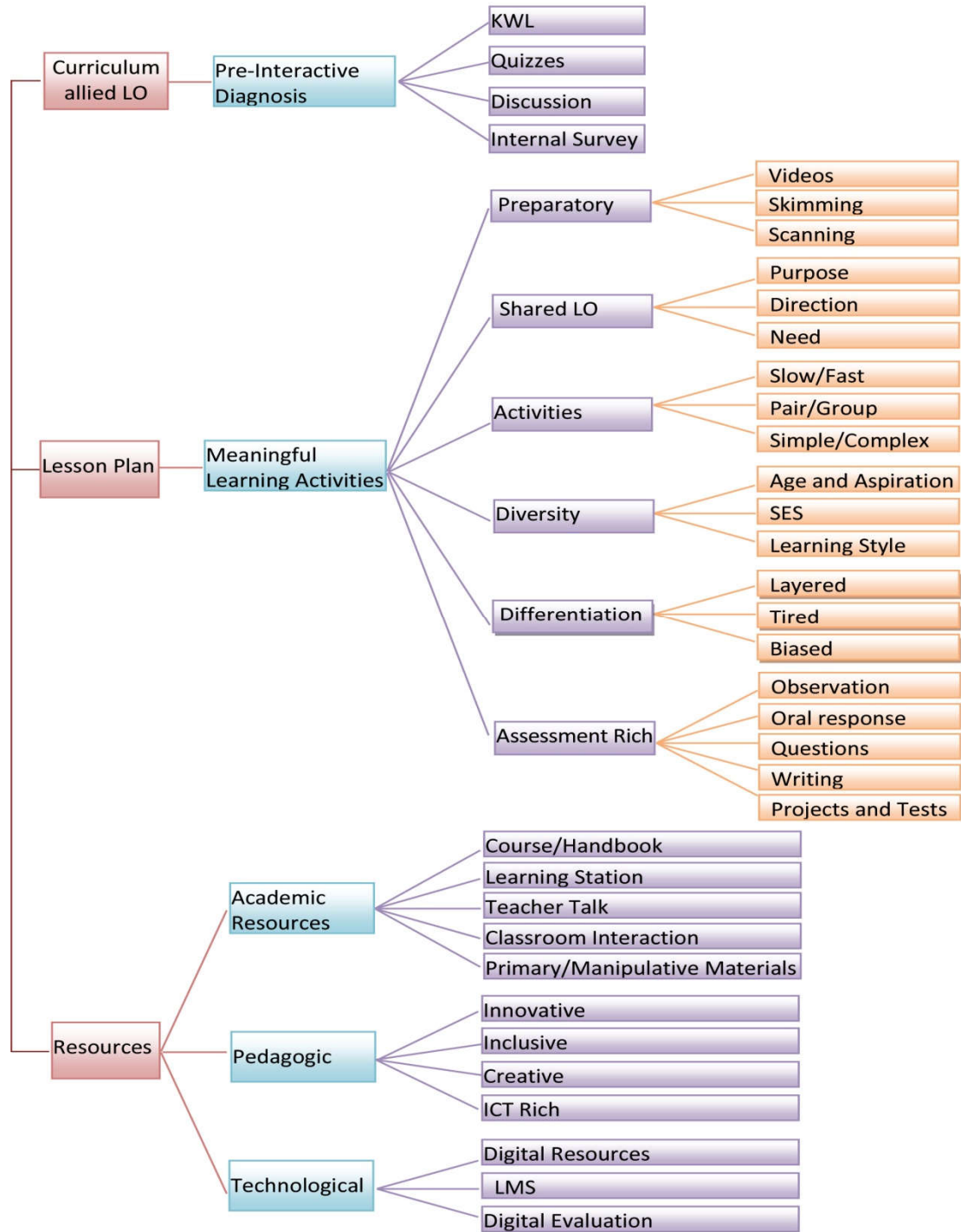
Phase-III Post Lesson Strategies

Pre lesson phase is the planning phase. Teacher must examine the pre-requisites and previous knowledge of the learners before the commencement of classroom teaching. Transaction phase is the teaching phase or implementation phase. Active use of assessment strategies is in this phase. The third phase is post lesson phase. It includes self learning and follow up activities by the learners. The design of the developed Constructivist Classroom Assessment Strategies is given here.

Constructivist Classroom Assessment Strategies - The Framework (Design)

Figure 5

Phase I - Pre-Lesson Strategies: Planning and Preparation

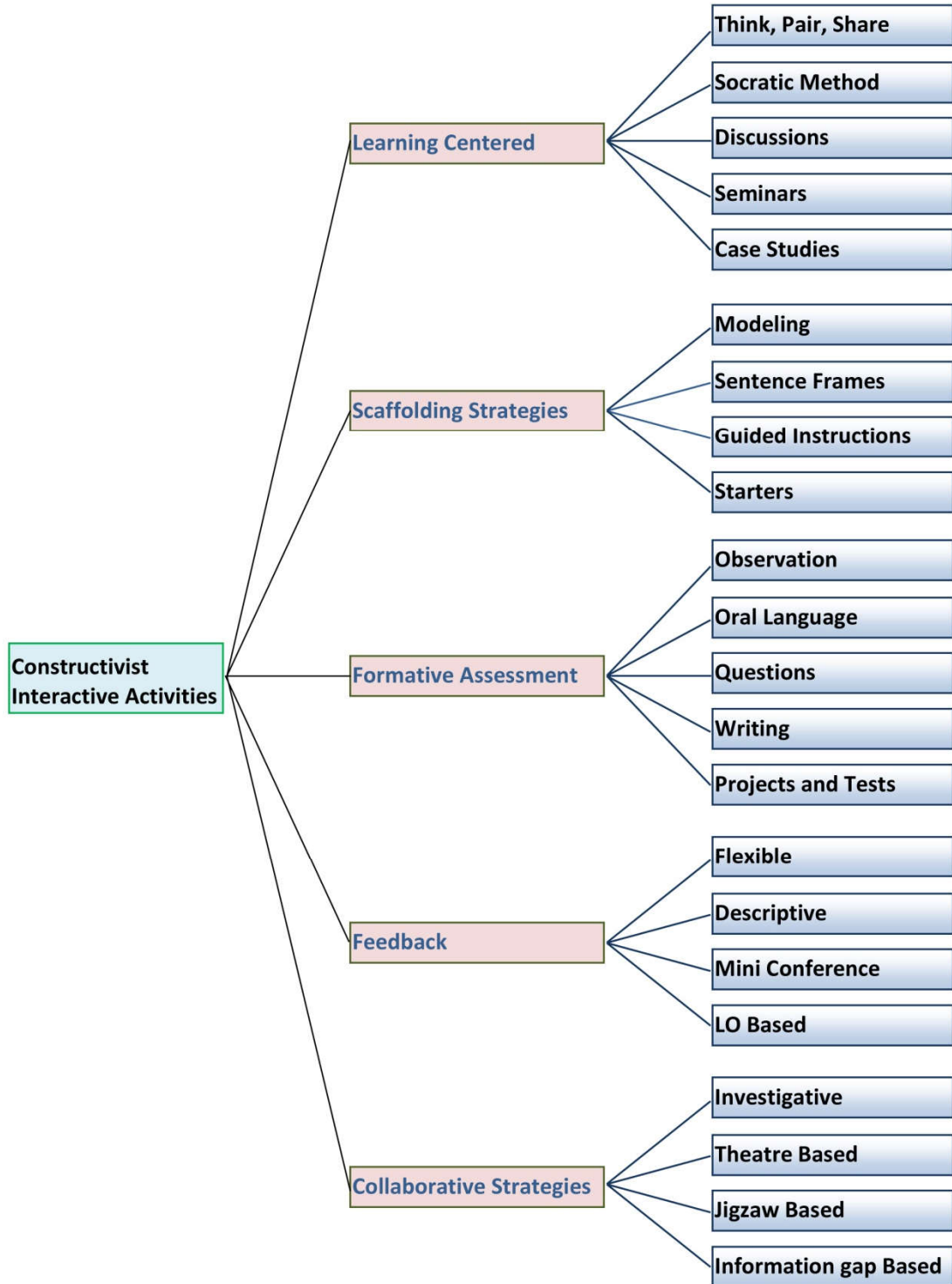


KWL - What do you Know?
 What do you Want to know?
 What you Learned?

SES - Socio Economic Status
 ICT - Information Communication Technologies
 LMS - Learning Management System

Figure 6

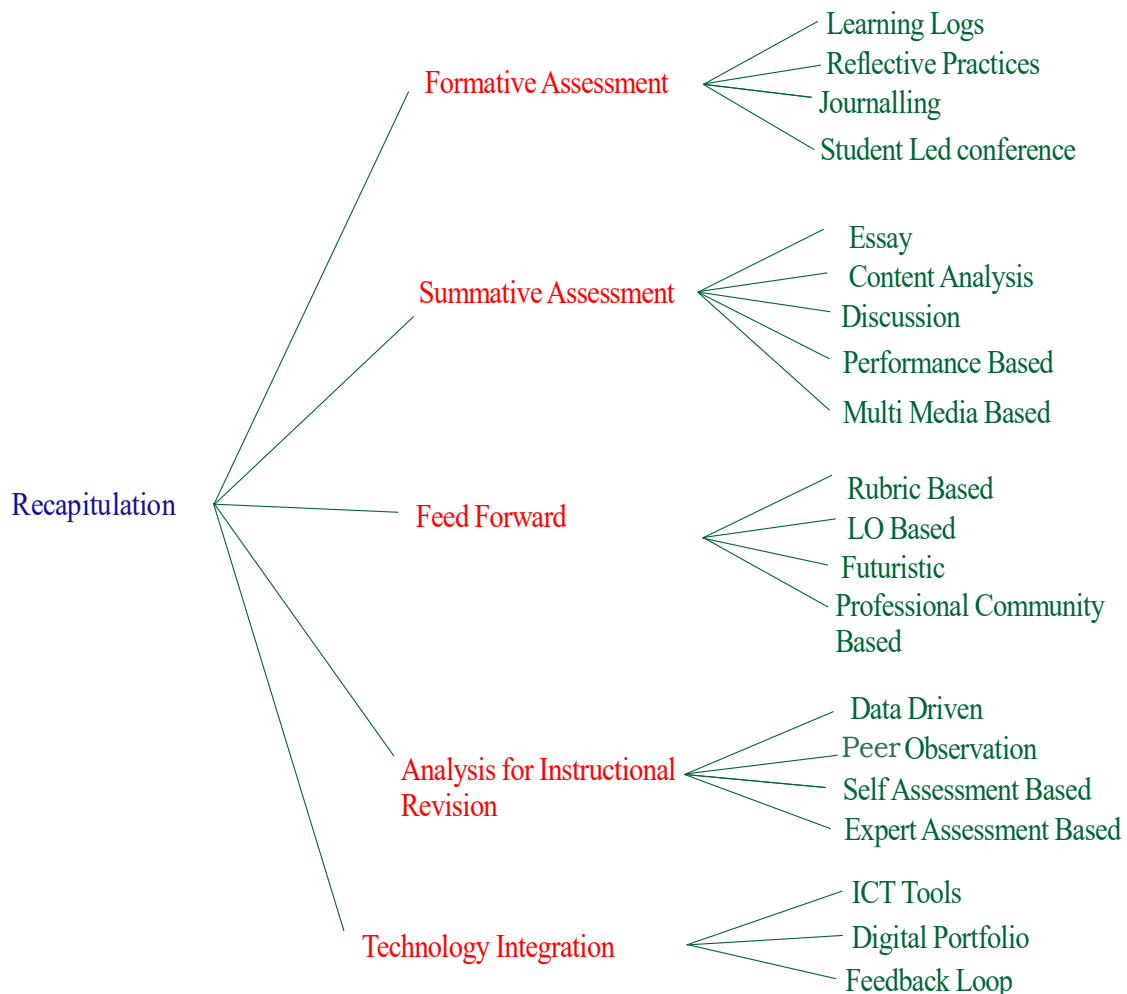
Phase II- Transaction Strategies (During the Lesson)



LO – Learning Outcomes

Figure 7

Phase –III Post Lesson Strategies



The developed design of the Constructive Classroom Assessment Strategies has administered for finding its authenticity or legitimacy. Researcher also developed a model lesson plan that strictly adhere to Constructivist Classroom Assessment Strategies Integration. Researcher used the modus operand of direct validation by experts and teachers. After developing a model of constructivist classroom assessment integrated lesson plan, researcher proposed the same with the framework of Constructivist Classroom Assessment Strategies to teachers and experts. They were given separate validation reports to mark their responses.

The authentication process is employed among thirty higher Secondary School English language teachers of six districts of Kerala state; five teachers each from six districts. All are teachers of government schools or government aided schools, who

teach English Language following the curriculum of Kerala State Higher Secondary Schools. These teachers belong to different geographical locations of Kerala and they are with multiple levels of service, experience, age and expertise. Other than the teachers, the design of Constructivist Classroom Assessment Strategies and integrated lesson plan were supplied to six experts also. The experts are chosen from SCERT teaching faculty, faculty members of teacher education colleges and university departments of Education. All the thirty teachers and six experts were directed to mark their response by choosing a score to validate its authenticity.

Process of Validating the Constructivist Classroom Assessment Strategies Framework

The Framework or Design of the Constructivist Classroom Assessment Strategies (CCAS) is supplied to selected teachers and experts for authentication. They have to mark their responses on the following statements

1. The CCAS design is apt for constructivist classroom teaching
2. It is apt to integrate with constructivist lesson planning
3. Entry activities in the CCAS design are comprehensible
4. It is accurate for formative assessment
5. It provides multiple opportunities for continuous assessment
6. It is learner centered and assure learner engagement
7. It is suitable to assess the learning outcomes during and after the lesson
8. It is apt for technological integration
9. It is apt for continuous and comprehensive assessment
10. The CCAS framework is supportive for constructivist teaching

The validation indicator has been given in appendices Respondents were requested to validate the design on the basis of these ten areas of references. They were informed that the scores can be given from 01 to 05. Out of the scores 01 indicates least satisfaction and 05 indicates high satisfaction. They can mark any score out of 01, 02, 03, 04, and 05. Fraction of scores is not allowed. They are also informed that the total score of 10 responses will indicate their verdict on the CCAS design. The total score of their responses can be from 10 to 50. The total score is the

indicator of acceptance of the CCAS design. The details of scores are given in the table 7.

Table 7

Scores and Indications for Adjudicating the CCAS

Scores (max. 50)	Percent	Indication
43 to 50	86% to 100%	Highly satisfied
38 to 42	76 % to 85 %	Beneficially Satisfied
33 to 37	66% to 75%	Moderately satisfied
28 to 32	56% to 65 %	Needs modification
10 to 27	55% or below	Not at all suitable

The indication can be accepted or rejected on the basis of the scores as given in the table 7. The acceptance of the CCAS design depended up on the obtained scores. The details of analysis of responses by the adjudicators are given in table 8.

Table 8

Obtained Scores and Indications on Authenticating the CCAS Design

Respondents (N=36)	Total score for 10 items (out of 50)	Indication
01	44	Highly satisfied
02	44	Highly satisfied
03	48	Highly satisfied
04	46	Highly satisfied
05	41	Beneficially Satisfied
06	44	Highly satisfied
07	45	Highly satisfied
08	48	Highly satisfied
09	43	Highly satisfied
10	36	Moderately satisfied
11	48	Highly satisfied
12	48	Highly satisfied

Respondents (N=36)	Total score for 10 items (out of 50)	Indication
13	36	Moderately satisfied
14	44	Highly satisfied
15	42	Beneficially Satisfied
16	40	Beneficially Satisfied
17	45	Highly satisfied
18	46	Highly satisfied
19	44	Highly satisfied
20	44	Highly satisfied
21	42	Beneficially Satisfied
22	44	Highly satisfied
23	48	Highly satisfied
24	46	Highly satisfied
25	42	Beneficially Satisfied
26	42	Beneficially Satisfied
27	46	Highly satisfied
28	44	Highly satisfied
29	46	Highly satisfied
30	46	Highly satisfied
31*-	44	Highly satisfied
32*-	42	Beneficially Satisfied
33*-	44	Highly satisfied
34*-	40	Beneficially Satisfied
35*-	45	Highly satisfied
36*-	44	Highly satisfied

*experts

From the table 8 it is clear that no respondent acclaimed the framework ‘needs modification’ or ‘not at all suitable’. Most of the respondents chose the design is highly satisfied. Only two respondents marked ‘moderately satisfied.’ The details are given in table 9.

Table 9*Satisfaction Remarks on the CCAS Design by Respondents*

Indication	n	%
Highly Satisfied	26	72.22 %
Beneficially satisfied	08	22.22 %
Moderately satisfied	02	05.56 %
Needs modification	00	00
Not at all suitable	00	00

The Table 9 clearly explains the percent of teachers and experts as adjudicators who accept or reject the CCAS framework or design. It is explained that 72.22% of the adjudicators are highly satisfied with the quality of the CCAS design. A group of 22.22% accepts the same as beneficially satisfied. A small group, 5.56% of respondents are moderately satisfied with the CCAS. It means, 72.22% of adjudicators accepted the CCAS as highly useful to teach English in constructivist mode. Another 22.22% of adjudicators also accepted it as very beneficial. Another 5.56% of respondents also expressed their acceptance with a view of moderate satisfaction. It is to be noted that no respondents rejected the credibility of the CCAS design. There is no teacher or expert who expressed dissatisfaction on the design. Most of the teachers and all the experts accepted the CCAS design either with high satisfaction or beneficial satisfaction. To conclude, it can be stated on the basis of validation by the experts and teachers that the CCAS design is competent to be integrated with the lesson plan for constructivist teaching.

The result of the validation process claimed that the CCAS design is competent to integrate with the constructivist lesson plan and constructivist teaching. A teacher can use the design for effective constructivist mode of teaching the subject.

Establishment of Authenticity of the CCAS Integrated Lesson Plan for Teaching English Language

The researcher has also supplied a model of Constructivist Classroom Assessment Strategies Integrated Lesson Plan to the teachers and experts along with the CCAS design. They were informed to validate the competency of lesson plan to implement teaching on the suggested method; it means they have to evaluate the quality of the CCAS integrated lesson plan for constructivist teaching. The adjudication process of CCAS integrated lesson plan was focused on 12 attributes. They are;

- 1) The lesson plan taps the latest developments in the topic covered.
- 2) The plan arranges slots for individual, pair and group activities.
- 3) The lesson plan employs ICT possibilities meaningfully.
- 4) This plan is effective in arranging slots for CE activities.
- 5) The plan has slots for evaluating diverse abilities of the students.
- 6) This plan is suitable for process based evaluation.
- 7) This plan is suitable for unit based evaluation.
- 8) This plan carries multiple slots for unit based evaluation.
- 9) This lesson plan helps to design best TE questions.
- 10) This plan inculcates values among children.
- 11) This plan fosters better relation between teacher and students.
- 12) This plan maintains multi disciplinary approach in class room interactions.

The respondents are informed to mark their adjudication score to all the 12 items. The process that is used to validate the authenticity of the CCAS design is applied to validate the CCAS integrated lesson plan also. The respondents were informed to mark their adjudication in scores from 01 to 05. Here they have 12 items to remark the adjudication. So, total scores have been changed for the validation process of CCAS integrated lesson plan. The score indication has been marked in table 10.

Table 10*Scores and Indications for Adjudicating the CCAS Integrated Lesson Plan*

Scores (Max- 60)	Percent	Indication
52* to 60	86% to 100%	Highly satisfied
46 to 51	76 % to 85 %	Beneficially Satisfied
40 to 45	66% to 75%	Moderately satisfied
34 to 39	56% to 65 %	Needs modification
12 to 33	55% or below	Not at all suitable

* score adjusted to the nearest high score

The acceptance of the CCAS integrated lesson plan is determined up on the total scores obtained in the validation report. Respondents were free to remark the scores as per their preference from 01 to 05 on each item. Minimum score will be 12 and maximum score will be 60. The acceptance of the CCAS integrated lesson plan is depended up on the obtained scores. The details of analysis of responses on the lesson plan by the adjudicators are given in table 11.

Table 11*Obtained Scores and indications on authenticating the CCAS Integrated Lesson Plan*

Respondents (N=36)	Total score for 10 items (out of 60)	Indication
1	55	Highly satisfied
02	56	Highly satisfied
03	54	Highly satisfied
04	51	Beneficially Satisfied
05	54	Highly Satisfied
06	54	Highly satisfied
07	54	Highly satisfied
08	56	Highly satisfied
09	55	Highly satisfied
10	48	Beneficially satisfied
11	51	Beneficially satisfied
12	56	Highly satisfied

Respondents (N=36)	Total score for 10 items (out of 60)	Indication
13	54	Highly satisfied
14	56	Highly satisfied
15	55	Highly Satisfied
16	54	Highly Satisfied
17	50	Beneficially satisfied
18	54	Highly satisfied
19	55	Highly satisfied
20	54	Highly satisfied
21	53	Highly Satisfied
22	50	Beneficially satisfied
23	54	Highly satisfied
24	55	Highly satisfied
25	54	Highly Satisfied
26	54	Highly Satisfied
27	56	Highly satisfied
28	51	Beneficially Satisfied
29	54	Highly satisfied
30	55	Highly satisfied
31*-	50	Beneficially satisfied
32*-	54	Highly Satisfied
33*-	54	Highly satisfied
34*-	56	Highly Satisfied
35*-	54	Highly satisfied
36*-	54	Highly satisfied

* - experts

The table 11 explains that all of the 36 respondents have marked their adjudication on the CCAS integrated lesson plan as Highly satisfied or Beneficially satisfied. There are no scores that indicate moderate acceptance or rejection. Most of the respondents remarked that the Lesson Plan is highly satisfied. The details are given in table 12.

Table 12*Satisfaction Remarks on the CCAS Integrated Lesson Plan by the Respondents*

Indications	n	%
Highly Satisfied	29	80.56 %
Beneficially satisfied	07	19.44 %
Moderately satisfied	00	00
Needs modification	00	00
Not at all suitable	00	00

All of the respondents accepted the competency of the CCAS integrated lesson plan as an accurate plan for constructivist teaching. There are no teachers or experts who marked their opinion that the lesson plan is moderate in acceptance or not suitable. All have agreed the credibility of the plan by marking the score which indicate highly or beneficially suitable to organize constructivist teaching.

The analysis conducted to validate the authenticity of the Constructivist Classroom Assessment Strategies and CCAS integrated lesson plan proved that the CCAS design and the lesson plan are highly suitable to organize constructivist teaching English in schools. The teachers and the experts who validated the CCAS framework and lesson plan undoubtedly approved its credibility. Researcher has framed lesson plans for the conduct of the experiment on the basis of the expert validation of both. All the lesson plans for teaching English for the experimental session followed the same pattern with appropriate constructivist classroom assessment strategies.

Chapter -5

ANALYSIS, RESULTS AND DISCUSSION

- **Validation of Constructivist Classroom Assessment**
- **Strategies: Achievement Test**
- **Validation of the Constructivist Classroom Assessment Strategies :
Content Analysis of the answer sheets**
- **Feedback Analysis of the Students and
Observation by the Teacher**
- **Focus Group Discussion**

ANALYSIS, RESULTS AND DISCUSSION

Analysis of the collected data is the crux of a research work and studying data to determine the innate facts leads to rigorous critical examination. Analysis and interpretation provide details of all the research process and explain the achieved destination of the research (Sukhia & Mehrotra, 2006; Best & Kahn, 2016). All procedures of the analysis are included in this chapter, with the exception of the one for determining the developed CCAS's legitimacy, which is covered in the previous chapter.

The present study aims to investigate the impact of constructivist classroom assessment strategies in enhancing the achievement, language skills and participation of higher secondary students in English language. The process of data collection includes multiple strategies like Achievement Test, Content Analysis of the answer scripts, Feedback Analysis, Observation and Focus Group Discussion. The process of analysis concentrates on quantitative and qualitative analyses. This chapter provides details of all analyses conducted to realize the objectives of the research. As mentioned in the chapter 'Methodology' the researcher followed the suggestions of Pandya (2010) and the processes of Sequential Explanatory Method. Being true to the spirit of Sequential Explanatory model, the researcher has employed techniques that are in tune with the mixed model. The analyses include-

- 1) Analysis to determine the achievement levels of higher secondary students in English language.
- 2) Independent sample t-test to compare the mean scores of achievement in English among the students of control and experimental groups.
- 3) Content analysis of the answer scripts of the learners.
- 4) Analysis of the feedback of learners.
- 5) Analysis of the Observation report.
- 6) Reporting of the Focus Group Discussion.
- 7) Score based analysis of the validation report by the teachers and experts.

Validation of Constructivist Classroom Assessment Strategies

Validating the constructivist classroom assessment strategies is the major objective of the study. First step of it is its authentication. The authenticity is established by teachers and experts through the process of score based adjudication. The authenticated constructivist classroom strategies integrated plans are used for teaching English. The CCAS integrated lessons are implemented and its effectiveness is found out step by step in multiple ways. The validation of the strategies, as discussed previously, carried out through different steps. Out of which, the first step was to analyze the achievement of students before and after the intervention. This step was utilized both in control group and experimental group. Hence, to approve the track of validating the constructivist classroom assessment strategies, the researcher has followed multiple methods, and the specified method used by the learner. Details of the data analyses are explained under appropriate titles.

Effectiveness of Constructivist Classroom Assessment Strategies Integrated Teaching on English Language Learning

One of the major objectives of the study is to find the effectiveness of Constructivist Classroom Assessment Strategies integrated teaching. To test the validity of the constructivist classroom assessment strategies, the achievement of students who are taught with constructivist classroom assessment strategies integrated method is tested with that of the students who taught with the presently using method. The analyses and results are given under the appropriate titles.

Achievement in English among the Students of Control Group at Pretest Level

The control group is treated with the presently practicing constructivist method of teaching. The achievement test for 30 marks is conducted for the students. N of the group was 62. The scores of the students of control group in the pre-experimental level achievement test are tabulated and analysed. Details are given in Table 13.

Table 13

Frequency of Scores and Distributions in Pretest (Control Group N=62)

Scores	Counts	% of Total	Cumulative %
7	6	9.7 %	9.7 %
8	2	3.2 %	12.9 %
9	5	8.1 %	21.0 %
10	11	17.7 %	38.7 %
11	14	22.6 %	61.3 %
12	9	14.5 %	75.8 %
13	1	1.6 %	77.4 %
14	3	4.8 %	82.3 %
15	5	8.1 %	90.3 %
16	2	3.2 %	93.5 %
17	4	6.5 %	100.0 %

The scores were employed for descriptive statistical analysis. The inference are given in Table 14.

Table 14

Descriptive Analysis of the Achievement Scores of Students at Pretest Level—Control Group

Item	Value
N	62
Mean	11.4
Median	11.0
Mode	11.0
Standard deviation	2.72
Range	10
Skewness	0.455
Kurtosis	-0.301

The result of the descriptive analysis of the scores of achievement test conducted in the control group is given in table 14. The values of skewness, kurtosis and central tendencies of distribution indicate that it is normally distributed. The table 13 indicates that the minimum score is 7 and maximum is 17, and the range is 10. This result explains that most of the students scored just lower than the Mean value. In the control group, the students are scored in between 07 to 17 and most of the students scored below the Mean value.

Achievement in English among the Students of Experimental Group at Pretest Level

The strength of the experimental group is 62. The same test of 30 marks is administered in experimental group. The scores of the students of the experimental group in the pre- test are tabulated and analyzed. Details are furnished in the table 15.

Table 15

Frequency of Scores and Distributions in Pretest (Experimental group N=62)

Scores	Counts	% of Total	Cumulative %
6	2	3.2 %	3.2 %
7	6	9.7 %	12.9 %
8	6	9.7 %	22.6 %
9	16	25.8 %	48.4 %
10	10	16.1 %	64.5 %
11	12	19.4 %	83.9 %
12	3	4.8 %	88.7 %
13	1	1.6 %	90.3 %
15	1	1.6 %	91.9 %
16	5	8.1 %	100.0 %

The table 15 indicates that the score distribution ranges from the minimum score 06 to maximum 16. The descriptive statistics employed on the scores of the Pretest is provided in the Table 16.

Table 16

Descriptive Analysis of the Achievement Scores of Students at Pretest Level– Experimental Group

Item	Value
N	62
Mean	10.0
Median	10.0
Mode	9.00
Standard deviation	2.44
Range	10
Skewness	1.02
Kurtosis	1.03

The descriptive statistical scores as per the table 16 indicate that the Mean value is 10, Median also 10 and the Mode is 9. The skewness is 1.02 and kurtosis is 1.03. This explains that most of the students scored in the achievement test equal or below to the Mean value and scores are normally distributed. This is readable from the table 17 also.

Mean Comparison of the Pretest Scores of Control and Experimental Groups

To find out whether there exist any significant difference between the control group and experimental group, the Mean Pretest scores were compared by administering independent sample t-test. Details of analysis are given in Table 17.

Table 17

Comparison of the Mean Pretest Scores of Control and Experimental Groups

Group	Mean	SD	t-value
Control group	11.4	2.72	2.88*
Experimental group	10	2.44	

* significant at 0.05 levels

The Mean comparison of the Pretest scores of control and experimental groups by administering independent sample t-test revealed that the t-value is 2.88 and it is greater than the tabled value of significant at 0.05 levels. The obtained t-value, 2.88, is a significant value and the value indicates that there exists significant difference between the Pretest scores of control and experimental groups. The Mean value, Median and Mode and the percentage of students with high score are high in control group than that of experimental group. In other words, it is observable that the students in control group are having slightly high level of achievement than the students in experimental group.

Achievement in English among the Students (Control Group) at Posttest Level

As said above, the control group is treated with the presently practicing constructivist method of teaching. After the completion of the intervention, an achievement test for 30 marks is administered. The scores obtained by the students of the control group are tabulated. Details are given in Table 18.

Table 18

Frequency of Scores and Distributions in Posttest (Control Group N=62)

Scores	Counts	% of Total	Cumulative %
14	4	6.5 %	6.5 %
15	2	3.2 %	9.7 %
16	9	14.5 %	24.2 %
17	13	21.0 %	45.2 %
18	6	9.7 %	54.8 %
19	9	14.5 %	69.4 %
20	2	3.2 %	72.6 %
21	10	16.1 %	88.7 %
22	4	6.5 %	95.2 %
24	2	3.2 %	98.4 %
25	1	1.6 %	100.0 %

It can be observed from the table 18 that minimum score obtained by students of the control group in posttest is 14 and maximum is 25. Among the students, 6.5% of students obtained low score that is 14/30 and 1.5% of students obtained high score, i.e., 25/30. The scores are administered for descriptive analysis and details are given in table 19.

Table 19

Descriptive Analysis of the Achievement Scores of Students at Posttest Level – Control Group

Item	Value
N	62
Mean	18.4
Median	18.0
Mode	17.0
Standard deviation	2.60
Range	11
Skewness	0.411
Kurtosis	-0.344

The table 19 indicates that the Mean value is 18.4, median is 18, and Mode is 17. As per table 18, it is observable that 21% of students scored 17 out of 30, and it is the obtained Mode. The values of the measures of central tendencies and the skewness and kurtosis are indicating that the distribution is normal.

Comparison of the Pretest and Posttest Scores of Control Group

To find out the effectiveness of the teaching method in the control group, the paired sample t-test is administered to find the Mean difference. Finding the difference of the students on their achievement before and after the intervention is essential to state the role of the teaching method. The detail of analysis is given in Table 20.

Table 20*Mean Comparison of Pre and Posttest Scores of Control Group*

Level	Mean	SD	t-value
Pre experimental	11.4	2.72	18.3*
Post experimental	18.4	2.60	

*Significant at 0.01 levels

The pre and posttest Mean scores of control group are compared by using paired sample t-test. The obtained t-value of the comparison is 18.3. This is a high t-value and indicates the difference between the scores of pretest and posttest scores of the achievement test in the control group is significant. In other words, there exist significant difference between the scores of Mean Pretest and Mean Posttest of control group on the achievement test conducted in English. The high mean, variation of values and range of the Posttest scores from those of the Pretest scores proved that teaching with presently practicing constructivist methods is effective to enhance the learning of students.

Achievement in English among the Students (Experimental Group) at Posttest Level

The experimental group, as explained before, is treated with constructivist classroom assessment strategies integrated teaching method. After the stipulated duration of intervention, an achievement test is administered to find their standard. The obtained scores of the achievement test is tabulated and details are given in table 21.

Table 21

Frequency of Scores and Distributions in Posttest (Experimental Group) N=62

Scores	Counts	% of Total	Cumulative %
19	6	9.7 %	9.7 %
20	2	3.2 %	12.9 %
21	2	3.2 %	16.1 %
22	16	25.8 %	41.9 %
23	8	12.9 %	54.8 %
24	14	22.6 %	77.4 %
25	4	6.5 %	83.9 %
26	6	9.7 %	93.5 %
27	4	6.5 %	100.0 %

It is observable from the table 21 that the minimum score obtained by students of the experimental group is 19 and maximum is 27 in the posttest. Among the students, 9.7 % of students obtained low score that is 19/30 and 6.5 % of students obtained high score, i.e., 27/30. The descriptive analysis is employed on the scores and details are given in table 22.

Table 22

Descriptive Analysis of the Achievement Scores of Students at Posttest Level – Experimental Group

Item	Value
N	62
Mean	23.1
Median	23.0
Mode	22.0
Standard deviation	2.16
Range	8
Skewness	-0.149
Kurtosis	-0.384

The table 22 explains that the distribution of scores of posttest in the experimental group is normal Mean value is 23.1 and Mode, the most repeated value is 22. The negatively skewed distribution indicates the concentration of scores equal to or above the Mean. As per the table 21 and 22, it can be firmly stated that most of the students in the experimental group scored highly in the posttest.

Comparison of the Pretest and Posttest Scores of Experimental Group

The paired sample t-test is administered to see the effectiveness of the teaching method in the experimental group, as it is done in control group. The details of analysis are given in table 23.

Table 23

Mean Comparison of Pre and Posttest Scores of the Experimental Group

Level	Mean	SD	t-value
Pre experimental	10	2.44	30.8*
Post experimental	23.1	2.16	

*Significant at 0.01 levels

The pre and post achievement test Mean scores of experimental group are compared by using paired sample t-test. The obtained t-value of the comparison is 30.8. This high t-value score indicates that the difference between the scores of pretest and posttest in the experimental group is significant. It means, there exists significant difference between the scores of Mean Pretest and Mean Posttest of experimental group on the achievement test conducted. The high values of the measures of central tendencies, the high variant distribution of the posttest scores, from those of the Pretest scores and the significant t-value prove that teaching with the constructivist classroom assessment strategies integrated teaching method is highly effective to enhance the learning of students.

Comparison of the Posttest Scores of Control and Experimental Groups: Comparative Effect of Teaching Approach

The comparative effect of teaching with present constructivist mode and constructivist classroom assessment strategies integrated mode on enhancing learning is examined on the basis of the Mean comparison of the scores of posttests. The posttest scores of control group and that of experimental group are compared by employing independent sample t-test. The details of analysis are given in table 24.

Table 24

Comparison of Mean Posttest Scores of Control Group and Experimental Group

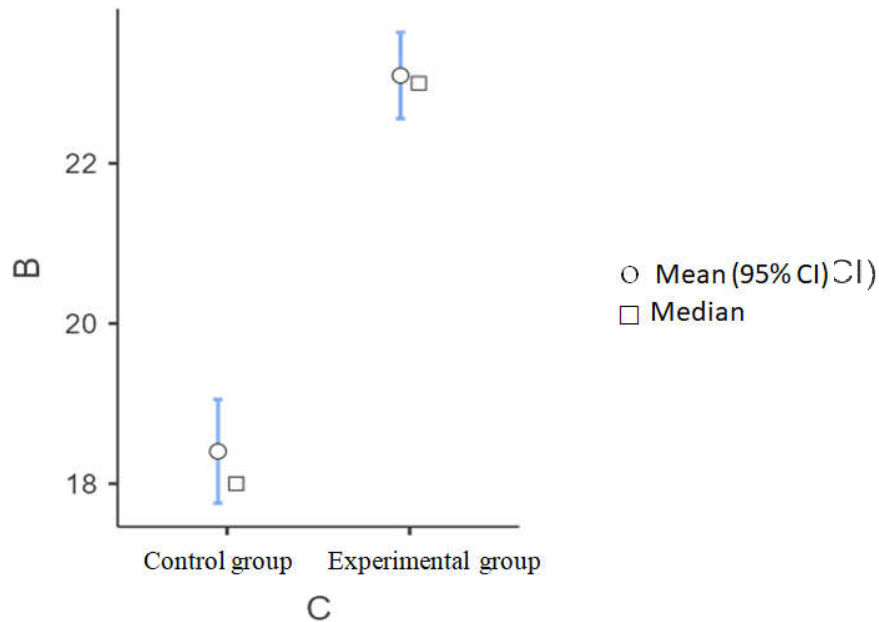
Group	N	Mean	SD	t-value
Control group	62	18.4	2.6	10.9*
Experimental group	62	23.1	2.16	

*Significant at 0.01 levels

It is decipherable from the table 24 that the 't' value is 10.9 for the Mean comparison of the posttest scores of the control group and experimental group on achievement test in English. The obtained t-value, i.e., 10.9 is significant at 0.01 levels. The obtained t-value proves that there exist significant difference between the Mean scores of control group and experimental group on achievement test at post experiment level. All the contexts of the measures of central tendencies resulting from descriptive analysis are high in experimental group than those of the control group at post experimental level. Based on the significant t-value (10.9) and the high variant of descriptive values, it is obvious to state that teaching with classroom assessment teaching strategies integrated method is more effective than teaching with present constructivist method to enhance English learning among secondary school students. This can be further observed from the figure 8.

Figure 8

Descriptive Plots of Mean Comparison of Control Group and Experimental Group at Post Experimental Stage on Achievement Test



The analysis undoubtedly proved that constructivist classroom assessment strategies integrated teaching method is highly effective to enhance learning English than the presently practicing constructivist method. The high scores of the measures of central tendencies, the high scores in the distribution of marks, the range between minimum and maximum scores and the obtained t-value of Mean comparison are provable to state that the experimental group, which is treated by the constructivist classroom assessment strategies integrated method has effectively achieved the learning outcome than that of the control group. The result is supportive to state the validity and quality of the constructivist classroom assessment strategies.

Interpretation

The result revealed from the Mean comparison of pretest and posttest scores of the Control group and Experimental group is evident to state that the scores are significantly different. When compared the Mean pretest score of control group with the Mean posttest score, the obtained t-value was 18.3, which is a high value, significant at 0.001 levels. It means, the achievements of students are comparatively

very high among students after treatment. It is evident to state that the teaching with presently using constructivist mode is effective to develop achievement of students. Comparison of Mean pretest and posttest scores of experimental group has resulted with a t-value 30.8. The obtained t-value is significant at 0.001 levels and it explains that the treatment with constructivist classroom assessment strategies integrated teaching is highly effective to develop achievement in English.

The obtained t-value of the mean comparison of posttest scores of control and experimental groups is 10.9, which is a significant t-value. It means, there exist significant difference between the scores of control group and experimental group at post experimental level. Table 22 and figure 8 explain that the high Mean value is 23.1, which is obtained from the score distribution of experimental group and that of the control group is 18.4 only. The Mean difference is 4.7. High scores in the achievement test are obtained by the students of the experimental group. The high Mean value, Mode and Median values, and the favourable values of skewness and kurtosis of experimental group at posttest level than those of the control group prove that the students of experimental group have scored highly in the achievement test than the control group. The enhanced achievement is the effect of the experienced treatment. In other words, the achievement of the students of experimental group is comparatively higher than the achievement of the students of the control group. The high achievement of the students of experimental group is provable to state that the constructivist classroom assessment strategies integrated teaching is highly effective to enhance learning. The result indicates the validity of constructivist classroom assessment strategies to teach a school subject.

Crux of the Result

The revealed result is supportive to state that teaching with constructivist classroom assessment strategies is comparatively more effective than teaching with the present mode of constructivist teaching. The students who taught with the constructive classroom assessment strategies incorporated mode achieved more in English language than the students who taught with present constructivist mode. It

means the constructivist classroom assessment strategies are highly valid than the present mode of constructivist method in classroom teaching.

Effectiveness of the Constructivist Classroom Assessment Strategies: Content Analysis of the Answer Sheets

Analysis of the achievement test scores, as explained above, has proved that the constructivist classroom assessment strategies are found effective and valid in teaching English. The aim of the research is to validate the quality of classroom assessment strategies as a process oriented method for constructivist classroom teaching. As explained in the beginning of this chapter, a distinct method of analyzing the content of the answers written by the students is employed to find the differences of answering by the students of control and experimental groups. The analysis of the content of answer sheets is part of the process based assessment. It is not answer, the product, but the process of answering is evaluated by content analysis.

The scores in the achievement test may not provide sufficient insights into the performance of students. The students and parents can get only the score that he or she achieved from the test, but fail to understand the areas of weakness in presentations, what creativity are needed and how answering should be redirected and so on. Teachers too would never understand creativity and linguistic capacities of the learners by analyzing only the scores of an achievement test. Hence, limiting the constructivist assessment only to the scores of achievement test is not a satisfied approach. It is in this context that a detailed content analysis of the scripts, as a constructivist assessment tool, used here.

As explained in the chapter 3, being true to the constructivist efficiency of learners, the following indicators have been taken into consideration for the content analysis of the answer sheets:

- 1) Creativity in answering
- 2) Critical perspectives in answering
- 3) Self reflexivity in answering

- 4) Reflecting current awareness
- 5) Student engagement with socio economic issues.
- 6) Reflecting original thinking
- 7) Reflecting environmental sensitivity
- 8) Attitude of risk taking
- 9) Willingness to quote the teachers
- 10) Presenting multiple perspectives

Content Analysis of the answer scripts is presented here under. The result of the content analysis is reported separately as of Experimental Group and Control Group. Experimental Group is that which is taught by the teacher in the constructivist classroom assessment integrated mode of teaching and the Control Group is taught the same components using the presently practicing constructivist mode.

Creativity in Answering- Experimental Group

While analyzing the sixty two answer sheets of the students who have undergone constructivist assessment integrated teaching methods in experimental group, the researcher has received satisfactory evidences to prove the creative self expressions in the answers. With the question, ‘why did Ashapura Debi compare women to matchboxes in the story Matchbox?’ multiple answers with interesting creative twist were given by the students. Answers to the questions from the “Mending wall” a poem by Robert Frost, is amazingly intervened by the students. It is pertinent to note that creative self expressions range from moderate to extreme in the answers. In terms of creative expression, the moderately performing students outsmarted the best one in scoring in the achievement test inside the classroom. The attitude of the traditional Indian family and specially the patriarchal perspective of the males are visible in some of the answers given by the students. They are scripted below:

Decrypt

- ‘she compares women to matchboxes, the same way women are facing many challenges, but no value to their husbands’
- ‘Women have the power like matchboxes, but they are blocked from the family. They have lots of talents but they do not even try to come out of it’.

Some other students, extending the plight of the heroine Ratna in the life writing “Horegallu” used expressions like ‘burning everyday like a Matchbox that too in the corner’, ‘unable to open their mouth towards things which are abusing her heart and body’ in their answers. The sentence “like matchboxes they are thrown away like a slave in the husband’s home is worth mentioning. The expressions like “burning everyday like a Matchbox”, ‘abuse her heart and body like a slave in her husband’s house’ are very powerful and are indicative of the intense debates and discussions held inside the classrooms. The physical dimension of the Matchbox and sticks inside are tapped to communicate different and divergent perspectives on the story. In patriarchal familial setups ‘women had to restrict themselves within the four walls of the kitchen just like matchsticks in a match box’, likewise in spite of their inherent potential to fire and explode, ‘women lead the sedate life of a Matchbox inside the kitchen’. This creative affluence is not confined to the answers from stories alone, enough examples can be found in answers based on poems and prose too. Equating a mother to ‘the key energy within the house’ and celebrating motherhood as a ‘beautiful feeling’ wonderfully exemplify creativity in the answers of students on the poem “Any Woman” by Catherine Tynan.

Creativity in Answering- Control Group

The answers written by the students who attended the presently using constructive mode are limited in their scope and meaning while compare with the way of answering of the students of the experimental group. “Mending wall” by Robert Frost is a much represented poem in curriculum around the world due to its deceptively simple but the layered nature of the poetic narrative. But the students approached the poem in a dry and prosaic manner. One student has found the poem ‘thought full’ and used the same faulty expression ‘thought full’ again in the same answer but has not written a single sentence that is contemplative about the poem and instead made very simplistic sentences like ‘the natures are against the wall and the poet is against the wall’. This simplistic engagement with the poem is not confined just with less endowed students but even the high performing students too wrote very ordinary and casual statements on this much acclaimed poem. The sentence like

“good fences make good neighbors which mean that good fences make good neighbors and ‘in this poem the humans are trying to build a wall among the neighbors’ are mere commonsense. Another student has wrongly conceived the poem “Mending wall” as a story written by Robert Frost indicating a very shallow assimilation of the poem by the students. It is found no creative interpretation on the questions on “match box” from the students of this group. In short, the layered nature of the poem is sadly lost in the teacher dominated, lecture based classroom.

Comparison of the Experimental Group and Control Group in Creativity of Answers

Unlike the traditional classrooms with dominating teachers and mono logic classroom discourses without any meaningful pedagogic space for students to express and articulate, the constructivist classroom assessment embedded sessions allow children to freely express their ideas without any fear of being judged inside the classroom.

Table 25

Creativity in Answering

Points of Creativity	Experimental Group	Control Group
Creative Expression	High	Moderate
Multiplicity of Views	High	Low
Metaphoric Expressions	High	Low
Nuanced Engagement	High	Moderate
Playfulness	High	Low

Critical Perspectives in Answering - Experimental Group

As proposed in the hypothesis the students in the constructivist classrooms have articulated enough critical perspectives in most of the answers irrespective the lessons, genres, discourse and types of questions. These critical reflections are not passively learned but are the natural and organic outcome of the various activities undertaken inside the classroom which include individual, pair and group activities.

The emphasis is given to the meta-cognitive reflections inside the class are visible in the answers analyzed for the purpose.

Decrypt

The critical reflections are found overtly with the poem prescribed for the study “Any Woman” by Catherine Tynan. Interesting observations like ‘the mother in the poem represents almost every mother who lived for her family’, ‘the safest place on the earth is one that is close to mother’ are not studied but spontaneous and organic. Interesting observations on the story “Match Box” exemplify the critical shrewdness of the students in constructivist classrooms. The sentence ‘most of her characters are around us wearing shirts of our uncles and aunts speaking Malayalam and reflect the essential values of traditional middle class Indian family’ is too striking to be left out. Critical metaphors likes ‘series of slavery experienced by women in Indian families’ and ‘Nomita is antithetical to the title of the story’ are brilliant.

Critical Perspectives in Answering - Control Group

With regard to the questions asked from lessons which are traditionally transacted, the students have answered the questions in a very safe prose. They do not indicate much reflexivity or criticality with it. Certain answers indicate that the answers are by hearted from the various study aids available in the market. Two key sentences worth quoting are from the lesson” Amigo Brothers” by Piri Thomas and “The Hour of Truth” by Cederic Wilson

‘There is nothing on this earth more to be prized than the true friendship’.

‘Baldvin is a good human being in a wrong world’.

But with regard to the discourse ‘Announcement’ asked from the lesson “Amigo Brothers”, the students seem to have a better grasp of the discourse elements required to make an effective announcement. Perhaps the thrust given to the practice

and repetition of the discourses by the traditional teacher may have enabled them to reinforce these language elements. ‘I hope all of you are excited to know that who the winner of the day is’ and ‘we are all together in the Tom square to see who the champion is’ are just two specimen sentences. However, the observation that ‘the story is like a match between friendships and championship, but at the end friendship wins’ is brilliant. But such are far and few among the sixty two answer scripts of the group.

The play “The Hour of Truth” is an interesting one dealing with corruption and ethical uprightness. It is hoped that the play would touch the formative minds of adolescents. This play has enough slots for developing critical bend of mind among adolescent students.

A news report by students on the financial fraud treated in the Play is not that difficult. It is interesting to note that much of the facts and figures have been brought out by the students who are pursuing the currently operational constructivist paradigm. The news report clearly mentions the name of the bank, the owner of the bank, the fund appropriation and the years of its existence, but the insider thoughts which are crucial are missing in the answer. The students in their answers on “Mending Wall” could not grasp the real gravity and the philosophical dimension of the poem instead they wrote about ‘how good relations are built and maintained through positive and creative restrictions’, which never was the key idea of Robert Frost when he wrote the poem. A few students have wrongly defined the poem as ‘a story’ and many of them came forward with just an uncritical summary of the poem describing the basic events in the poem.

Comparison of the Experimental Group and Control Group in Critical Perspectives in Answering

Answers written by the students from the constructivist classrooms are found to be more critical and layered in comparison with the answers made by the students who attended the currently operational paradigm in Kerala. However, these students appear to be stable with regard to the discourse elements due to its repetitive treatment of these discourses inside the classrooms.

Table 26*Critical Perspectives in Answering*

Points of Critical Perspectives	Experimental Group	Control Group
Insightful Observations	High	Moderate
Meta Cognitive Understanding	High	Low
Critical Reflexivity	High	Moderate
Philosophical Gravity	High	High
Organic	High	Low

Self Reflexivity in Answering- Experimental Group

Constructivist classroom stresses the Identity of the students by focusing on their primary language and cultural context. Progressive teachers do not valorize the traditional thrust on direct approach where English is taught only through English. The foreign language classroom is no longer viewed as a sanitized space where the socio cultural aspects of children are frowned upon. On the contrary constructivists are conscious of the role of criticality and reflexivity in contributing to the easy and meaningful acquisition of English language. It is a fact that the major segment of students who fail in English belong to a particular segment of society with low socio economic status and with very limited cultural capital of their own. The study proposes that the students from constructivist classrooms will come up with more reflexive and identity conscious answers in their scripts. In such scenarios, evaluation becomes a knowledge acquiring process where students from diverse cultural background reflect on the given questions and emerge with interesting answers.

The identity of the learner is a key construct in English language teaching and the gradual realization has set in that beyond a neutral space for umpteen language activities English classroom should arrange multiple slots for engaging with their identity and social and cultural locations. While analyzing the answers based on the Bengalee story “Matchbox” by Ashapura Debi, the students have accepted both patriarchal and feminist positions in their answers, but the progressive position gaining more acceptance among the students. The positions ‘that's your life so love

your husband’, ‘it's not your husband's family but your family’ and ‘if you have any problem you can come to me we do not need the relationship any longer’ are interesting in this context. Practical positions like ‘you put a complaint to the police against your husband’ reflect the grey space in these stifling binaries. The progressive attitude of students is also visible in their answers in the form of questions like ‘why do you stand hearing his screaming?’ and ‘why should you burn like a matchbox in the corner of the house?’

Decrypt

The answers based on the speech “The 3Ls of Empowerment” by Christine Lagarde are revealing the reflects the perspective of learners. The emphatic position on women empowerment ‘if women contribute less than 50% to the economy it is not their fault’ clearly reflects the learners’ confidence. The big self realization that ‘if you educate, we can proudly say, no one will confuse or bother you’ is a rich view. The reflection, ‘in our society there is gender inequality and whenever it changes the society will also change’ is a powerful thought on women empowerment. The statement ‘we know everything about anything but men restrict them. They are in the hands of the husband’ is as powerful and loaded as the one made in the context of the poem ‘Any Women’ ‘Without her permission or participation the home inmates cannot do anything’ is the script in the answer and that reflects the respondents self confidence. The inability of many women to understand the gravity and their sad plight is made clear with the words ‘women are the wage less and appreciation less worker inside the house and we cannot understand it until we reach in that position’. In spite of all these apprehensions and worries, certain answers also exhibit much of their optimism too. The proverbial ‘women need to be practical and not emotional’ and ‘a father just builds a house but it needs a woman to make it into a home’ are confident illustrations.

Self Reflexivity in Answering - Control Group

Self reflexivity is a key quality of the answers made by the students who attended constructivist classrooms. The empathetic understanding or imagining oneself in the position of the characters will give better insights into the nature and culture of the characters and the dialogical nature of constructivist classroom will help students to think about his own life and identities from a new location. But this is missing in currently operational constructivist classrooms.

The answers given on the depiction of the true friendship in the story “Amigo Brothers” by Piri Thomas is an interesting case for investigation. The question carries enough space for reflecting one’s identity but the students do not attempt such intricate analysis instead they just try to make a superficial description of the thematic landscape of the story. The sentences ‘They played the game like strangers and they both left the ring before listening to the announcement regarding the winner of the match’ or ‘they did not want to hear the result because they know that if they waited for the result a complex would be formed inside them and their friendship would turn out to be fake in that context’ are just two interesting specimens in this regard.

A few answers carry clichés like ‘mesmerizing story of two brothers and no one ever has written about this kind of friendship’ in their answers. ‘They were together in every moment in the life and they do not have misunderstanding about the friendship’ reflects students superficial understanding of the story. The apparently powerful statements on the story like ‘there is nothing on the earth more to be priced than the friendship is true regarding the story’ is not original, but copied from the supplementary material available in the market.

Comparison between Experimental Group and Control Group in Self Reflexivity in Answering

Self reflexivity in answers is a key feature of the answers written by students who attended the constructivist assessment integrated classrooms. Unlike

the presently operational paradigm, the truly constructivist teacher will arrange enough space for students to reflect on their life and world around them.

Table 27

Self Reflexivity in Answers

Points of Self Reflexivity	Experimental Group	Control Group
Identity Consciousness	High	High
Socio-cultural Sensitivity	High	Low
Deeper Engagement	High	Moderate
Assertive	High	Low
Beyond Binary Perspectives	High	Moderate

Reflecting Current Awareness- Experimental Group

Constructivist classroom believes in dialogues. It arranges enough space for debates and discussions. Topics are discussed comprehensively and all the views are aired without valorizing anyone as the correct one. Teachers’ voice is one among the many and it is just like the ‘teachers version’ in writing sessions. When teachers use both the primary and manipulative materials, discussions become more vibrant and democratic. All perspectives are accepted and perspectives of the student evolved out of their life situations are also welcomed. Constructivist classroom often begins with an unexpected note and they begin the lesson with a video clipping, news photograph or a newspaper report. Personal experience of the teachers is to be often employed. It could also be an advertisement or a reading material. Since students engage with multiple perspectives and diverse materials students become more aware of things happening around them. The answer scripts analyzed stand as evidence for the arguments made above.

Decrypt

The answers did carry interesting references to current life situations around the students indicative of their general awareness. While referring to the plight of women in leadership positions one student has written ‘most Indian leaders are men when women become leaders they do not have decisions of their own’ The suggestions of a student ‘to create new online apps for women to get more opportunity in the work place’ is also reflecting the trend of the day. The main character in the play “The Hour of Truth” Mr Baldwin is uninterested in other peoples ‘fake money’ and the scathing attack ‘on management seats based not on merits but on money power of the parent’ is worth mentioning as the new generation is always looked down upon as net generation interested only reels and in social media. The question of sharing and caring connected with the lesson “Horegallu” by Sudha Murthy reflects interesting take on the students’ general interest in transforming society. Their ideas on micro interventions for transforming society, bringing smiles on the poor, meticulous planning for food related charity all indicate their social and political orientations. The fresh reading on the truancy of children is interesting in the context of the poem “Any Woman”. Truancy is just the tip of the ice berg and once the issue is analyzed deeper, it is discovered that the parents or the way they were raised was the real issues behind this social issue.

Reflecting Current Awareness- Control Group

Current awareness of the students who are trained in the traditional classroom is very low. The text based, monologic lecture by the conventional teacher doesn't have space for students to reflect on the events of the day to day life that are related to the lessons in the course book. In the answers on the chapter “Amigo Brothers”, beyond the typical, routine statements like ‘friendship is the real winner in the game’ there is nothing that is interesting and especially so with regard to the use of current

awareness from the side of the students. The term ‘golden glow’ is key in the story and a creative teacher would spend some time on this factual information or he will make his student to think in that direction, but these curiosity on details are found missing in the answers from the traditional classrooms. Unidirectional teacher will not get time to reflect on minor details like these. Many students have referred to the friends turned fighters leaving the ring before the result of the fighting competition being declared. Many related events have happened in the world of boxing both in the past and present, but no student has made any reference to these episodes in their answers. Instead, these students just reproduced careless statement like ‘It is the friendship and not the fighting wins the game’. The same could be found in other areas of sports too. Even the last world cup in football had umpteen similar interesting episodes, which the students are familiar with, but none of these episodes was mentioned, in any of the answer. In the traditional classroom, the teacher might be doing everything to cover the portion before the examination and he will not have time to talk about the current events too.

Comparison between Experimental Group and Control Group in Reflecting Current Awareness

The answers of the students who attended the constructivist assessment integrated classrooms showed greater awareness on the incidents happening around them. The diverse activities inside the progressive classroom have enabled the students to be more actively engaging with the pressing issues of the world.

Table 28

Reflecting Current Awareness

Points of Current Awareness	Experimental Group	Control Group
Current Awareness	High	High
Dialogic Perspectives	High	Low
Learner Voice	High	Moderate
Curiosity for Details	High	High
Students Experiences	High	Low

Student Engagement with Socio-Economic Status: Experimental Group

Constructivists engage with the socio economic status of students within the classrooms meaningfully. They do not view the social and cultural background of the students as a burden but as a wonderful possibility to explore inside the classroom. Over the years various questions have been asked to engage with this vital terrain. It is found that children tend to write more confidently on these questions that engage with their life situations and personal experiences. These questions enable them to bring the personal experiences into their answer sheets giving them the feeling that classroom is a space to bring in their personal excitements and sorrows. Consequently, children tend to write better, they get better language to communicate as they seek to employ information that is personal and deeply felt. Students feel the transformation of classroom into a democratic space where multiple, diverse experiences of students are welcomed. The earlier celebration of experience of the best and meritorious is no longer viewed highly in the constructivist classrooms.

Decrypt

The socio economic angles are reflected in questions that are asked from the short story “Match Box” by the Bengali writer Ashapurna Debi. Since the questions are not directly seeking their views or about their personal experiences, here they reflect their SES indirectly through their positions on the life world of Nomita and her mother. In her letter to Nomita, her mother reflects on their poor financial status and how their poverty empower her husband to insult her in the large upper class Bengali family. As we all know Nomita is not a rich girl but she is married to a to a rich family owing to her personal grace and good looks, always making her poor mother proud about the fact. Interestingly the most attempted and responded question is this one on the poor situation of Nomita's mother through the letter to her daughter. Students have identified the crucial link between the mistreatment by Ajit and Nomita's poverty in these words:

‘I know we are from a poor family so your husband insults you but don't worry.’ Nomitha's mother's effort attempting multiple works to engage with their poverty is communicated in most of the answers. ‘You know about our poverty, my struggles. That's why I started to work again to earn money. Recently started cooking and stitching too.’

Student Engagement with Socio Economic Status: Control Group

With the currently operational paradigm in Kerala, it is alleged that, not much space is available for students to reflect on their socio economic locations. The concern for the SES is spurred by dialogic and collaborative classroom with a consciously created thinking environment.

Decrypt

Among the answer scripts analyzed, the meritorious sprinkled typical clichés and quotes to answer the questions on the true friendship depicted in the story “Amigo Brothers”. ‘True friendship is like a gem’ and ‘true friendship can never leave when found once’ are some of the quotations made in the answers. The sentence ‘boxing ring becomes the ring of friendship’ is an interesting observation but the answers do not grow enough to reflect the social identity and the cultural location of the students. It is pertinent to note that even the endowed students in the near constructivist classroom too have proved to be common in their answers. Almost all the answers on friendship in “Amigo Brothers” maintained that the true friendship caused them to leave before the formal announcement of the result of the boxing match, but no reflection came from any of the student regarding their socio economic status impacting their attitude of love, commitment and concern for one another. The critical and reflective engagement with the story is missing in most of the answer written by the students who are trained in conventional classrooms.

Comparison of Experimental Group and Control Group in Student Engagement with Socio Economic Status

The answers of the students who have attended the constructivist classroom are found to be reflective enough to engage with the socio economic location of the students which extended the level and scope of their answers in comparison with the students who attended the conventional teacher dominated classroom.

Table 29

Student Engagement with Socio Economic Status

Points of Socio Economic Status	Experimental Group	Control Group
Experiential	High	Moderate
Critically Aware	High	Low
Socio Culturally Sensitive	High	Low
Divergent Experiences	High	Low
Conscious of Social Location	High	Moderate

Reflecting Original Thinking in Answers - Experimental Group

Disclosing the constructivist engagement within the classrooms, answer sheets of the students carried evidences of originality and fresh perspectives. This is visible in answers from lessons like "Matchbox" and "Any Woman" the short story by Ashapura Devi and poem by Katherine Tynan. The classroom as a debating space for creative interactions has been largely accepted by the constructivists. Teacher's voice is not the sole voice of the classroom, the learner's is also equally valued. Texts are accepted as polyphonic and multiplicity of reading is always valorized in the classrooms. The elaboration of the 'ring image' given in the answer sheet is worth presenting. The ring symbolizes a circle which also stands for perfection. The exposition that the poet is indirectly communicating the immaculate and spotless love of mother towards her children is really revealing. The observation 'Matchbox can be the title the story but Nomita, the heroine of the story does not stand for the Matchbox' is disturbingly new.

Decrypt

Unlike many answers comparing Nomitha and matchboxes, the answer posits that matchbox cannot stand for Nomitha as she fights and explodes at her husband's negative habit of reading letters addressed to her. The letter written by students for Nomitha's mother provide ample testimony to the original and fresh impulses of the students like the two specimens given below:

'Whenever I miss you, I take your tiny little clothes and look at them'.

'Without you I am empty'.

Reflecting Original Thinking in Answers- Control Group

Answers made by the students following currently operational paradigm seriously lack original thinking in comparison with the students who have under gone the constructivist paradigm in teaching. Discursive and democratic classrooms have enough space for student to explore the lesson in umpteen ways. The answers on the poem "Mending Wall" by Robert Frost testify the mediocrity of the students in their answers. This poem is nuanced and layered but this edge of the poem is literally spoiled by students in their answer sheets. To some students, the poem is about 'barriers between neighborhoods and a wall destroying the friendship'. To some others, the poem is 'about meeting up of two neighbors to mend the wall that lied between their farmland'. All these indicate that the students have failed in understanding the dense thematic landscape of the poem critically. The last set of students see the poem as 'about building and breaking of a wall between the neighbors and hence they decided not to have a wall between them'. These answers reflect the careless engagement with poem happening inside the traditional classrooms where original thinking is rarely privileged and consequently, regular and mundane reading are validated to the neglect of interesting take by the students on the poem.

Comparison between the Experimental Group and Control Group in Reflecting Original Thinking in Answers

The answers of the students who have attended the constructivist classroom are found to be more original and fresh in comparison with the students who have undergone the traditional teacher dominated classroom. The open and free atmosphere arranged by the constructivist teacher enabled the students to think and respond free in the classroom.

Table 30

Reflecting Original Thinking

Points of Original Thinking	Experimental Group	Control Group
Fresh Perspectives	High	High
Learner Agency	High	Low
Polyphonic	High	Moderate
Discursive	High	Low
Micro Engagement	High	Low

Reflecting Environmental Sensitivity - Experimental Group

A few of the answers indicate elements of environmental sensitivity. They reflect clear signs of environmental awareness especially on questions based on the lesson 'Horegallu'. Extending the notion of sharing and caring in the general sense, here certain students speak of moving beyond caring just human beings. The new world order forces us to be caring and conscious about nature too. The reaction of the nature against the mindless activities of the postmodern human being is also seen in certain answers. One answer says 'when we destroy nature, she will react with earthquakes, floods and diseases'.

Reflecting Environmental Sensitivity - Control Group

Conventional, and teacher dominated presentations will not equip students to engage with an issue in all its nuances and hence their answers too will not be comprehensive enough to accommodate a balanced analysis on the issue.

The poem “Mending Wall” offers all scope for attempting an environmental reading. The atmosphere and ambiance of the poem is very close to the nature and the large expanse of green land also seems to have influenced the poet in writing this poem. The poem can also reflect on the third world environmentalism as theorized in India. But all these theoretical sensitivity is missing in the answers made by the students.

Comparison of the Experimental Group and the Control Group in Reflecting Environmental Sensitivity

The answers made by the students who have attended the constructivist classroom indicate a deeper sense of environmental sensitivity in comparison with the students who attended conventional teacher dominated classroom. Debates and discussions encouraged by the constructivist teacher enabled the students to have sensitivity for the marginalized in society.

In the answer on the poem “Any Woman” written by Catherine Tynan, which is not about environment, but one student has nicely compared the caring aspect of the nature with the all loving and caring attitude of the mother presented in the poem. Another student has specifically mentioned the role of the Banyan tree which is providing a soothing atmosphere for the villagers so that they could share all their worries affecting them in their village life. Here, the tree becomes a vital character in the write up. All these indicate the nascent format of environmental sensitivity emerging in the students.

Table 31

Reflecting Environmental Sensitivity

Points of Environmental Sensitivity	Experimental Group	Control Group
Eco-Sensitivity	High	High
Value for Humanity	High	Low
Universalism	High	Moderate
Concern for Marginalized	High	Low
Balanced and Mature	High	Low

Attitude of Risk Taking- Experimental Group

Risk taking is an important quality of a good language user. Just as in business, it will fetch better rewards or may risk the profits. In the second language acquisition context, the students' attitude for risk taking is highly encouraged or supported. It is pertinent to note that constructivist classroom will encourage students to be adventurous in language skills, functions and other language elements. The content analysis of the answer scripts of the students who have attended constructivist classrooms also endorsed this view.

Decrypt

The attitude of risk taking could be in the character sketch of grandfather made by the students from the life writing 'Horegallu' by Sudha Murthy. While describing the grandfather, one student has characterised him 'not just a heart capturing character, but a human Horegallu who can bear our emotional weight and burden'. The student has further extended the notion of Horegallu from its physicality to the next level to link it with the concern for humanity and concern for others. This type of interesting extension is missing in the answers of the students from the typical traditional classrooms.

Attitude of Risk Taking- Control Group

The attitude of risk taking is not at all seen in the answers of the students who attended the conventional teacher dominated classrooms. It is rarely encouraged in such classrooms and critical thinking is permitted only for the teachers in traditional classrooms. Even with a highly endowed student, the answer elaborating the importance of wall in the poem "Mending Wall" is de-motivating and absolutely superficial. According to her, the poem discusses 'the importance of keeping distance between people and the need for keeping certain things with ourselves'.

Students rarely attempted a complex analysis of the poem. This limitation not just with the performing students in the class, less endowed are all the more

disappointing and one such student believes that ‘neighbors will have more problems and a good wall will arrange privacy for his family and relieve him from unnecessary issues’. So the academic or pedagogic risk taking is rarely visible with the scripts of students who have undergone training in conventional teacher dominated classrooms.

Comparison of Experimental Group and Control Group in Attitude of Risk Taking

The answers of the students who have attended constructivist classrooms are found to be more adventurous academically in comparison with students who attended conventional classrooms. The free and encouraging posture maintained by the constructivist teachers enable the students to be risk taking in their answers. High expectation of the teacher also encourages risk taking mentality from the side of the students.

Table 32

Attitude of Risk Taking

Points of Risk Taking	Experimental Group	Control Group
Risk Taking	High	Moderate
Extended analysis	High	Low
Free and open analysis	High	Moderate
Close reading	High	Low
Divergent Thinking	High	Low

Willingness to Quote the Teachers- Experimental Group

In constructivist classroom, teacher is always accessible to students with an encouraging visage and high expectation on the students. He is a friend, guide and philosopher to the students always working and thinking along with them. This caring posture of the teacher will help him to leave a few imprints of his ideas in the minds of the students.

Decrypt

Regarding the question on the character of grandfather in the piece of life writing “Horegallu” by Sudha Murthy, some students have quoted a few interesting Ideas suggested by the teacher inside the classroom reflecting a better and close engagement with thematic content of the piece during the class session on the text. During the session the researcher had termed the grandfather as a ‘emotional closet’ as he did most of the things done by the physical horegallu. It was an on the spot improvisation or thought inside the classroom during the interactive discussion with the students. Interestingly some students have quoted the exact term by the teacher and placed the same contextually in the answer script. A few students extended the arguments still further by stating that ‘any emotional closet is of very big need in our journey, if it is of life or even if it is real journey’.

Willingness to quote the Teachers- Control Group

Since the teacher is the key speaker inside the classroom, we tend to believe that the students of traditional classrooms will be more likely to quote the words and thoughts of the teachers in their scripts, but the optimism gets nullified, once these answer scripts were put to analysis by the researcher. They are nothing but uncritical summary or the answers from the supplementary materials available in the market. This is visible in the news report on the financial fraud held in the Gresham’s bank in the play ‘The Hour of Truth’. The news report made reference to the issue using the word ‘misappropriation’ and interestingly one student has repeatedly used the same word without even trying to bring a new word to communicate the idea. The word misappropriate has been used three times in a paragraph length answer indicating the quality of classroom interactions. In the absence of students’ voice inside the classroom the answers of the students will be mere common sense which are perpetrated through the inexpensive guides available in the market.

Comparison of the Experimental Group and Control Group in the Willingness to Quote the Teachers

The students who attended the constructivist classrooms are found to be more inclined to quote the words and ideas of their teachers in comparison with the students who attended the traditional teacher dominated classrooms. Free and open ended discussions promoted by the constructivist teacher would lead to the formation of more synaptic connection in the brain and consequently better memory and its efficient reconstruction at the time of examination.

Table 33

Willingness to Quote the Teachers

Points of Quoting Teachers	Experimental Group	Control Group
Quote Teachers	High	Moderate
Improvisation	High	Low
Free and Open Ended	High	Low
Students on Version	High	Low
Close Familiarity with Texts.	High	Low

Presenting Multiple Perspectives –Experimental Group

Attempting to present multiple perspectives is a higher order way of reading a literary text. It reflects a deep or enhanced engagement with any work of art. Certain writers leave their texts open for the readers and they expect their readers to co-construct the text. This has impacted the readers too and they also keep some of their answers open ended.

Decrypt

Responding to the question on the character of grandfather in ‘Horegallu’ by Sudha Murthy, one student wrote an answer having multiple possibilities. Initially presenting the technical definition of the horegallu as ‘a bench made of stone’, she extends it to ‘any place or people who take rest on their way ahead and spend time with other

people'. Further elaborating the point she considers it as 'a real escape from the tiring modern world' and as a 'real spark for social service' which is a very fruitful thing one can do in his life to bring a huge difference in the world. Towards the end of the answer the grandfather is presented 'as a model for the current society' that does not have time to think about people around them. Similarly, yet another student transcending the binary position on the character Nomita as silently suffering or reacting like a thunder, moves ahead and present her as a 'special character simultaneously harsh and silent" at home leading a very peaceful life of an ordinary woman in an Indian family.

Presenting Multiple Perspectives- Control Group

This attitude for multiple perspectives on the part of the reader is rarely found in the answers of the students who attended the conventional teacher dominated classrooms. With the question from the Play "The Hour of Truth" the students seem to have lacked comprehensive understanding of the thematic world presented in the play. Similarly, on the question of the relevance of wall in the poem "Mending Wall" by Robert Frost ,students could not properly grasp the crux of the poem instead many of them have just focused on the basics like the proverbial statement of the unchanging neighbor like 'Good fences make good neighbors' without engaging with it critically.

Comparison of the Experimental Group and Control Group in Presenting Multiple Perspectives

The answers of the students who attended the constructivist classrooms are found to be presenting multiple perspectives and are more often open ended in comparison with the students who attended conventional teacher dominated classrooms. Constructivist students have more control over the answers and at times they are even playful with the answers indicating a thorough understanding of the text.

Table 34
Presenting Multiple Perspectives

Points of Multiple Perspectives	Experimental Group	Control Group
Multiple Perspectives	High	Moderate
Confident engagement	High	Low
Open ended	High	Moderate
Free interpretation	High	Low
Comprehensive understanding	High	Low

Content Analysis attempted with the answer scripts of the students has revealed interesting insights for the key stake holders of the educational process like teachers administrators and students. It is pertinent to note that with the answer scripts written by the students who attended constructivist classroom strategies need to be handled with extra care and expectation. The mere value points that are abstract may not help the evaluators to gauge the real density and intellectual design embedded in these answer scripts. There are studies investigating constructivism and critical thinking skills of the students, but the present study moves beyond it and argues that really constructivist classroom with creative teachers and thinking based activities will evolve answers which carry traces of creativity, current awareness, self reflexivity, originality, teacher thoughts, multiplicity and environmental sensitivity.

Feedback Analysis of the Students and Observation by the Teacher

To further ascertain the results obtained through the statistical analysis of the scores of the achievement test in English and from the content analysis of the answer scripts, the researcher has also attempted the feedback analysis of the participating students and observation by the researcher (as teacher) himself. As mentioned earlier the investigator has taken first two blocks of the English course book namely “Flights of Freedom” and ‘Heights of Harmony’ for the study. These first two blocks consists of eight lessons comprising prose pieces, poems, stories and dramas. Generally, these lessons are simple for the students and not without much length. Most of these

readings are interesting for the children as the topic discussed are related to their life world or with some personal message related to their lives.

The final indicators for the feedback to be followed by the students and the researcher are determined accurately. With regard to the teacher observation, the researcher has attempted a non participant observation noting down the vital developments and episodes during the sessions. Students' feedback was collected on both presently using constructivist approach and classroom assessment strategies integrated constructivist classroom approach. As part of the planning and preparation, the researcher has familiarized the components of the schedule in simple language. Interestingly, after the initial surprise all the students engaged the tasks seriously and participated enthusiastically.

The following components were stipulated to be included in the feedback process to be used by the students alike.

- Is the class intellectually inviting?
- Does the teacher track the students?
- Does the teacher use primary and manipulative materials?
- Does the teacher check the previous knowledge of the students meaningfully?
- Does the teacher interact with the students to help them construct new knowledge?
- Does the teacher provide feedback to students?
- Does the teacher employ multiple assessment strategies inside the classrooms?
- Is the classroom process oriented?
- Does the teacher arrange group activities inside the classroom?
- Is there space for student reflection after each activity?
- Does the teacher employ diverse activities in the classroom?

The details of feedback analysis are given under appropriate titles.

Is the Class Intellectually Inviting?

The students under experimental group have preferred constructivist classroom as it is intellectual challenging. This preference for constructivist classrooms is seen in all categories of students. Both the highly endowed and underperforming students who have been categorized based on their score in the achievement test conducted previously and the overall performance inside the classroom have favoured constructivist classroom assessment integrated procedures.

The highly endowed students' remarks like 'interesting', 'almost interesting', 'ideas rich', 'ideas stirring', 'easy to track the teacher and topic' reflect their attitude of positivity towards constructivist classrooms with enough space for students to think, deliberate, and reflect on the various topics. The role of the learner as an active constructor of knowledge is also emphasized by the high achievers with remarks like 'yes I was very active', 'it is exciting to attend the class', and 'the teacher and students alike are vibrant'. The classroom, here, is a creative space for unending deliberations without valorizing any single point of view. When they remarked about classroom as 'ideas impregnated', 'stirring up new thoughts in the minds of learner', 'providing space for acquiring and sharing new ideas' they are echoing nothing but the foundational principles of constructivist philosophy. But more interesting and insightful observation and committed support came from the under performers in the achievement test, debunking the common sense that constructivism is elitist and pro meritorious. Their observations like 'We could speak about things around us, it makes us active in the classroom, keep us interested' are worth citing in this context. Both the categories of students have suggested the need to be cautious in making it student friendly by ensuring more clarity in certain areas and not going beyond the level of the students.

The members of the Control Group were not as enthusiastic as their counterparts in the Experimental Group. Participants identified the session as teacher dominated, teacher led or teacher fronted. Teachers were active and not the students reflect the perspective in the control group. Students were inactive, indifferent and at

times sleepy too inside the classroom. The passivity of the students touched all the segments in the classroom.

Does the Teacher Track the Students?

All the participants in the Experimental Group except three stressed the positive edge of the constructivist teachers in tracking and supporting students. Excluding the two exceptional remarks like, 'need to improve', 'average in tracking students' majority of the students list its positive valuations like 'attractive', 'watch all the short comings', 'very good', 'you addressed each student', and 'everyone inside the classroom is tracked'. The above observations by the participants in the Experimental Group emphasize tracking as a process to observe the strengths and weaknesses of students in the classroom. Along with keeping abreast of the academic journey of the students tracking also stresses watching to support the needy and attempt meaningful remediation also. 'Tracked students to support', 'watch all types of students', 'track all equally' or 'concerned more about remediating and converting classroom into a space where equity and equality are the norms' are pertinent to remember. All students have been supported according to their existing levels to their maximum. 'The teacher provided space for all students to speak about the content of the chapter', provide another dimension to the process tracking where the students are motivated to express before the class. 'Teacher calls me often', 'we will be attentive a little more', 'you can write better if you understand', all certify the student satisfaction about being tracked inside the classroom. One student in the Experimental Group is too enthusiastic about tracking when she said 'through tracking and asking questions my teacher really is supporting me in my life ahead'.

The students in the Control Group expressed their dissatisfaction with the role of the teacher in classroom in the aspects of the teacher feedback. Teacher was found to be talking all the time. He was a dominating presence and took the whole period for speaking to the students. He rarely tracked the students and waited till the end of the course to make a wrong perspective on the child. Students in the Control Group found the teacher focusing more on the meritorious and the endowed. 'Teacher

focused only on the front bench and he did not even know our names' encapsulates the feelings of the students.

Does the Teacher Use Primary and Manipulative Materials?

Students in the Experimental Group generally stand for the benefits of using different types of texts used in the class by the teacher as part of transaction based on constructivist classroom assessment strategies integrated teaching. They are 'useful' and 'our teacher used many' indicate the general trend of the classroom under study. Students in the Experimental Group have a broader perspective on the text to be used in the classroom when they mentioned the types of text employed as charts, ICT tools and various other technologies and even the 'life experience by the teacher' and 'the relevant comparison of the topic with the current situation'. The materials used here are 'from the text and outside the text'. Pedagogical significance of the multiplicity of material is also understood by the students in the Experimental Group when they mentioned about materials being used 'to present the difficult concepts in the text' and to 'minimize the topic' to use the exact words by the students. However, students are a bit critical with regard to the lesser use of technology especially when it has a real and proven impact in enhancing the knowledge of the students.

With the students in the Control Group, the teacher mainly used the course book prescribed for the study. Teacher never deviated from the text and one student has said that 'the teacher almost venerated the text as holy and taught it from cover to cover'. In spite of their expertise in the content area, a few teachers are not updated in terms of their technological knowledge and often students supported them especially with the latest technology inside the classroom. Students are ready to support the teachers, as one of the students puts

'We are ready to support our teachers, but most of them are shy to ask for it'.

Does the Teacher Check the Previous Knowledge of Students Meaningfully?

The participants in the Experimental Group have diverse views with regard to tapping their previous knowledge, but they seem to be unanimous about the

potentiality of using previous knowledge to start the new session. Participants reflected their excitement in using prior knowledge with phrases like ‘good’, ‘very useful’ and ‘learner friendly’. The concern of the students is expressed in words like ‘not included’, ‘very rare’, ‘never seen’ also indicate the relevance of prior knowledge to assimilate new concepts. In contrast to the view given here regarding the frequency of usage of previous knowledge, a few participants have come up with the extended understanding of this concept which can be valued even by the behaviorist teacher and practitioners. They have accepted the teacher practice of ‘seeking the opinion of students from all backgrounds’ and the ‘meaningful focus on the current topics’ as related to the idea of constructivist notion on previous knowledge. In short the students of the Experimental Group agree with the meaningful use of prior knowledge of students inside the classroom.

The students in the Control Group found the teacher to be too busy inside the classroom. She is very busy to cover the portion at the earliest. Usually, our teacher begins the session with the question- ‘where did we stop?’ ‘This is very boring for all of us and then starts the new portion to be covered’. The students in the Control Group are unhappy about the long and winding lectures made by the teachers inside the classroom and one of the students remarked some of the teachers are in love with their own voice and communicative idiosyncrasies. Even though the teachers in the both groups are same, but they performed differently in both the classrooms as these classes and the students had different expectation on the teacher.

Does the Teacher Interact with the Students to Help them Construct New Knowledge?

Teacher- learner interactions are key to constructivist classrooms. Besides this, learner-learner, learner-text interactions are also encouraged. It makes the classroom dialogic discarding the monologic and didactic pedagogy followed in behaviorist classrooms.

The participants are excited about conversational and interactional angle of the classroom and the students in the Experimental Group have represented the shift using

interesting words and phrases. Students admit that constructivist classrooms help them 'learn fast' and 'acquire new knowledge' through the continuous interactions between the teacher and students. Interactions within the classrooms also enable each student 'to bring his ideas out' and to 'share his experiences with the fellow students.' Knowledge building aspect of interaction is also referred to by some students in the Experimental Group but equally important is the interaction for 'helping the student.' Beside the knowledge part and remediation, students also have pointed to a largely under discussed aspect of interactions which is the confidence building dimensions of interactions. The apparently underperforming students in the Experimental Group are also vocal about the benefits of interactions; they focused specially its strength on 'eliciting of students thoughts' 'help to construct knowledge' and 'possibility of pushing them forward.' However, they insist that interaction should be with everyone inside the class and it cannot be confined to the meritorious alone.

The students in the Control Group are not participating in any knowledge construction process. In traditional classroom, the students are not even expected to do that leading to a very poor expectation on the students from the side of the teacher. Conventional teacher finds the knowledge construction process very cumbersome and the teacher follows the lecture based method. 'We were just hearing the teacher silently all the time' and the students in the Control Group are not really excited about this reduced role inside the classroom.

Does the Teacher Provide Feedback to Students?

Feedback is a vital component in constructivist classrooms. Analyzing the strength and weakness, students are given feedback. Currently, in the behaviorist tradition, teachers wait till the end of the year to certify the students as eligible or failed. Students need to be given appropriate feedback and help them progress according to his or her existing level of competence. Feedback also enables the teacher to redesign some of his earlier pedagogic design with regard to the students.

Regarding feedback, the students in the Experimental Group have pointed at three formats of feedback existed in the constructivist classroom. Feedback given to

all students after each session is the first type. Secondly, it is given as and when it is required and lastly it is rarely attempted with students inside the classroom. To the students in the Experimental Group, the teacher has given feedback appropriately after each session along with suggesting ways of improvement to students. A very few students have pointed that it 'needs to be improved' as it is not attempted much. Another set of students in the Experimental Group argued for a need based feedback specifically focusing on the backward students inside the class. The most pathetic of the responses is that feedback is done only for the students who are attempting to improve their results in the coming examination.

The students in the Control Group rarely received any feedback from the side of the teachers. Even when it is given, it is kept for the fag end of the year leaving no scope for children to make any improvement in his academic performance. The teacher followed the same pedagogical procedures all through the year without collecting feedback from the students and working on it. The umpteen possibilities of the feedback as employed in the constructivist classroom are rarely tried in the traditional teacher dominated classrooms. 'Why can't the teacher teach the way we want them to teach us?' was the concern of a student in the Control Group.

Does the Teacher Employ Multiple Assessment Strategies Inside the Classroom?

Teaching approach based on constructivism has shed new light into the assessment regime of the schools. Insistence on high stakes has been replaced with learner friendly, non invasive assessment protocols. Formative and ongoing evaluation strategies came in place of end of the year summatives. Multiple assessment strategies have been employed to gauge students and assessment identities with in the classroom have been extended to include self, peer, teacher, and experts from outside.

Students of the Experimental Group are excited about the multiple formats of assessment being used to evaluate them during the classroom interactions. The responses of the students in the experimental group state that 'multiple assessment strategies help to understand the content better'. 'The teacher employs them in all the

chapters' and 'it is very helpful for teachers' indicate their favorable attitude towards multiple assessment techniques employed by the teacher.

With regard to the cognitive and pedagogic effects of these procedures, they also maintain that 'these assessment activities grow our thoughts' 'help to improve the mastery of subject' while implementing and new concept. The value of the assessment procedures is also stressed in their words like 'they make the classroom entertaining and life oriented and experiential'. The students in the Experimental Group also found that the culture of asking questions to all students and similar strategies would help students to improve their study habits. However, along with all these, a few concerns have been made in these contexts which include the absence of teacher planner, which once was a very strong student resource.

The students of the Control Group found that only very limited number of assessment activities are done inside the classrooms. Teacher is the sole assessment identity inside the classroom. Only paper and pen test was entertained inside the classrooms which support only the highly endowed and meritorious students. One student in the Control group opined that 'assessment is not a balanced diet incorporating diverse assessment strategies catering to the multiple levels of talents in the class'. No attempt was undertaken to evaluate the students formatively to support in their learning.

Is the Classroom Process Oriented?

Process orientation distinguishes constructivist classroom from traditional classroom. They promote activity based, process oriented classroom and provide active role for students in the construction of new knowledge. Teacher remains passive and students become active here. Activities of different kinds are encouraged which are of different pace, constitution, difficulty level and the number of participants required for the activity.

The students in the Experimental Group termed the classroom as 'constructivist with its stress on process'. Excluding the criticism that 'certain students are kept away' from activities, no other point was a raised against the

process orientation. Benefits of activity based classrooms have been variously listed as ‘intentionally arranged slots for students of all types’, ‘enabling all students to explore’, ‘considering the voice of the students’ by the students participated in the research. Remembering the drama techniques implemented while transacting the short story “Match Box” by the Bengali writer Asapurna Debi students of the Experimental Group have specifically listed the benefits of theater activities which would help students to share their thoughts regarding the lessons variously. The underperforming students were also vocal in establishing the edge of process orientation over the traditional classrooms. They believe that processes in classrooms ‘decrease the boredom inside the classroom’. They also cautioned about the ‘limited number of activities’ being implemented inside certain classroom.

The students of the Control Group found the classroom lecture based, monologic and teacher dominated. Teachers understood the notion of process in a very limited manner. Most of the activities inside the classroom are artificial and fabricated. The activities were catering only to the high performing students of the classroom. Reflexivity on the nature and culture of activities is sadly missing with all segments of teachers including the experienced and inexperienced.

Does the Teacher Arrange Group Activities Inside the Classroom?

Activities energize students both physically and cognitively. Didactic and lecture based instruction is no longer fashionable with students. Activities of all sorts need to be tapped to make the classroom truly constructivist. However, activities for the sake of activities disinterest student soon. The aim and purpose of the activities must be known to the teachers which should be in tune with the thematic and linguistic outcomes specified for each lesson in the course book.

The pedagogic merits of group activities have largely been stressed by students of the Experimental Group. ‘Concept orientation in the classroom’, ‘entertainment and fun in the activities’ and the value of group activities in ‘energizing the teamwork skills among students’ are some of the striking observations made by the students. Besides the pedagogic values, they also help in ‘storing the lessons components in the memory’. However, a few concerns too have

been raised by the participants. In spite of the tall claims made on behalf of the activity orientation, often the activities are very limited and especially so with group activities. A few teachers are disinclined to organize activities citing reasons like pressure of time and their cumbersome nature. A few activities arranged in the classroom by the teachers have been listed as 'boring' by students. In the absence of creative activities, classroom turned out to be a barren space for sleepy and inactive students. Concept formation becomes the first casualty here and rote learning replaces it to the detriment of the student hood in the post modern world.

The students in the Control Group are found discouraged with the absence of activities inside the conventional classrooms. Activities conducted inside the traditional classrooms were not organic but they were artificial to the core and hence the students were disinclined to participate in them.

Is there Space for Students' Reflection after each Activity?

Metacognition is a key aspect of constructivism. It is also known as thinking curriculum due to its insistence on thinking skills of the children. Strategies like debates, discussions, seminars and projects stress the cognitive abilities of children. Behaviorist techniques like practice and repetition do not get much thrust in constructivist curriculum.

Majority of the students in the Experimental Group are excited about the self reflection process which is part of the metacognition emphasized in constructivism. It enables students to 'develop their ideas', 'develops a big pool of ideas', 'we get ideas of fifty students', 'enable us to reflect more and class is made more interesting'. Students of Experimental Group explained opportunity for reflection as 'really useful' and 'always promoted' in the classroom. However, a few reservations have also been made by these students. Attitude of students to reflect less and the self reflection reduces the real need of the teacher explanation inside the classroom are just two among them.

The students in the Control Group were not allowed any space for self reflection during the teacher explanation inside the classroom. Dialogic activities like

discussions and debates were replaced with monologic and unitary teaching methods. 'We were made to repeat the discourse features many times so as to equip us to get better scores in the examination' was the concern of a student in the Control Group. In the place of reflection, students were doing nothing but reproduction either oral or in the written format.

Does the Teacher Employ Diverse Activities in the Classroom?

Teacher uses diverse strategies to hook the attention of the students. They experiment with a variety of pedagogic activities. The activities range from investigative to performance based activities. The constructivist emphasis on cooperation rather than competition is also illustrated here. All these activities are meant to energize the minds of children to meaningfully engage with topics prescribed.

All the students in the Experimental Group identified the strategies employed as cooperative and collaborative. A few students have even mentioned 'reading and discussion' as constructivist in orientation. Lecture is the least preferred method by the students. The performance activity in the lesson "Horegallu" by Sudha Murthy and the theater activities in the short story "Match box" by Ashapurna Debi too have been mentioned by the students as the 'friendly effort to understand the lessons better'.

The students in the Control Group were found dissatisfied with the teacher dominated lecture method employed by the teacher inside the classroom. No attempt was seen from the side of the teacher to diversify the teaching methods to engage all types of students inside the classroom. The teacher talk and the student talk were disturbingly disproportionate. In such a scenario the scope for evaluating students were severely lost in the lengthy winding lectures of the teachers. The participation level of the students too was abysmally low making them absolutely passive inside the classroom. Instead of cooperation, competition was encouraged to the detriment of the well being of the students.

The feedback of the participants in the research comparing the constructivist classroom assessment integrated methods and the traditional teacher dominated methods, has favoured the learner centered, process oriented and activity based classroom with an emphasis on informal, organic and noninvasive assessment protocol for student assessment. The lazy way of conceiving assessment as the weakest link in the curriculum implementation inside the classroom needs to be redesigned in the light of the largely positive endorsement of the constructivist classroom assessment which are inbuilt in the teaching learning processes. The feedback analysis also points to the need for reworking constructivist classroom strategies that are being followed in Kerala so as to redesign it to make it assessment rich and sensitive with evaluation strategies organically and seamlessly linked with the instructions. Similarly, classroom activities should grow themselves to be assessment activities so as to make them non invasive and hence the students will not be apprehensive and they will participate in these activities without being directly conscious about it.

Focus Group Discussion with students

As part of the study, the researcher has also conducted a Focus Group Discussion with the selected students of both control and experimental groups. Focus group discussion followed the analysis of achievement test scores, content analysis, and feedback and observation note analysis. The researcher hopes that the data collected through focus group discussion would throw some interesting insights on the results collected through the first two stages. The findings of the Observation and Content Analysis have ratified the hypothesis made by the researcher. In order to further obtain insights in to the process, a FGD was conducted.

For the purpose of conducting the FGD, ten students were selected from all categories like highly endowed, moderately endowed and underperforming. These students were categorized based on their scores in the achievement tests and the overall performance inside the classrooms and these students were randomly selected for the purpose. After identifying the students, they were briefed about the FGD and its need, purpose and methodology.

The FGD went about for two hours. Participants were taken to the library hall after getting the special permission from the principal. Since they have undergone the constructivist and behaviorist models of presentations in their class, they seem to be aware of these two philosophical positions in the context of the lessons they studied. They were also briefed about the procedures and the kind of thoughts and behavior expected of them. The entire process of FGD was recorded by the researcher himself, first noting down the points at the FGD site later elaborating the points of the FGD in the form of a complete document. Since the FGD explores the minds of the students in an informal way, the participants were generally relaxed and cool about the process. The researcher also maintained a relaxed body language all through the process and he employed a semi formal structure for the focus group discussion. The researcher has collected the views of the students on these two transactional strategies.

In consonance with the results received in the Feedback and Content Analysis, the focus group discussion also signaled clear evidences to support the constructivist strategies for classroom transactions. Among the participants who attended the Focus Group Discussion majority of the students endorsed activity based, process oriented, thinking sensitive classrooms over the traditional teacher dominated, unidirectional pedagogic practices. Interestingly, a very microscopic minority maintained a negative approach in the discussion.

Key Arguments of the Students Supporting Constructivist Classroom Assessment Strategies Integrated Practices

- We understand better, and we get more knowledge. We are more active inside the classroom with the fun of participating in various activities.
- Since we do more work inside the classroom, we understand better.
- Since the teachers question during the teaching process, we say more with a better understanding.
- We remember many points due to the questions posed by the teachers during the class sessions.

- We do many activities and if we have any doubt regarding the lessons, it can be addressed by the fellow classmates inside the group.
- Even with the backward students this methodology is very effective.
- With regard to English language teaching, we got more and better English in constructivist classrooms.
- Students can travel along with the teacher and the method of asking questions immediately after the reading part enable better comprehension by the students.
- Group work undertaken inside the classroom helps us to understand more. We got more examples from more activities.
- We understand completely whatever the teachers says in the classroom and we can grasp the idea, concept or the topic faster and easier.
- Even if we do not get the entire idea, we will wait for the question posed by the teacher after the reading session, hence, naturally, we will be conscious and will get the unclear part cleared.
- Activities like skits, theatre done as part of the story “Matchbox” by Ashapura Debi helped us to understand the story better.
- The activities with a purpose and the appropriate Malayalam explanation make the lesson very effective. We understand English better if it is immediately followed by its Malayalam translation.
- Our reading skills improve when we read with comprehension. We become bold to ask and opine, if we are trained in constructivist classrooms. We are attentive all through and if at all mistakes arise, they can be rectified easily. We are active inside the classroom and hence active in the examination hall also. Traditional teachers do a lot of explanation but we do not get it.
- Even those students who are confident to read get still more confidence to read. It leads to more focused attention and hence we can perform better in the examination too. Traditional teaching focuses only on the meritorious few.

- With more interactions and conversations between teacher and students, we understand better and more too. We could also discuss the topic in detail.
- When we read we focus more, naturally we understand and remember more. Similarly, when we get questions we cannot sleep or talk in between. It doesn't give much space for teacher talk.
- When we are in groups, we are active and we cannot sleep. We understand quickly. We get the experiences of other people too. When we opine and express, we remember better.
- In groups, we are more productive personally. We understand when we listen but we forget them when we sit to study. When we are participating in activities, we remember the activity and the topic too.
- When we interact with friends, we are more satisfied. We can opine, express our views and can even convince people. It is good for the weak too with the peer teaching possibilities.
- We understand on the spot and get more information in our head, and then you need just to revise at home. All students are involved and both the good and the weak will enjoy the constructivist classrooms.
- When something is explained, we are not interested. But when we do something we can learn better. We do more reflexively. When students are active, they understand better and more. But with certain subjects, explanation helps as they need to get conceptual clarity.
- With traditional classrooms you just listen but in constructivist classrooms, you listen after doing something and hence you understand better.
- In constructivist classrooms I felt like learning and the teacher also allowed me to think more and since interactions in classrooms encourage more questions, they lead to more knowledge. Dialogic classrooms are better even for the backward students.

Discussion

The students participated in the Focus Group Discussion whole heartedly endorsed the edge of constructivist teaching over the traditional behaviorist teaching. The participants who have understood the normal fundamentals of constructivism are clear about their position when they aired their views on these two philosophical positions. The debate has been conducted largely on the vital points associated with the constructivist and behaviorist postulates in educational thoughts. The following discussion attempts to identify a few glaring positions of the participants.

The participants seem to be optimistic about the role and significance of constructivist postulates in English Language Teaching. They are of the view that constructivist classroom, through diverse activities like discussions, debates, seminars and group discussions, can generate more and better English for the students to consume inside the classroom. Teacher Talk, which is an important offshoot of the behaviorist classroom, is conspicuous in its absence in the progressive classrooms. Many additional ideas have also been identified with regard to its contribution in English language teaching in Indian context. Reading efficiency through immediate questionings, and the possibility of generating more knowledge through comprehensive debates on various topics given in the text and outside the text, will empower the students to be updated on various topics.

Most of the students have stressed the capacity of constructivist classrooms in ensuring the conceptual clarity and better understanding of the topic in a faster and easier way. The meaningful grasp of the idea, concept or topic is a recurrent perspective of participants and the role of group work and activities in enhancing the level of understanding of the students, especially the theater activities associated with the story “Match Box” is cited here. Even if any doubt arises in the mind of a student, there is always the possibility of a fellow student addressing the same is very natural in constructivist classroom. The role of questions is specially mentioned, especially their role in better grasping and contributing for everlasting memory. Their power in keeping the students curious and conscious and attentive is also very well documented.

The edge of constructivist classroom to engage with the underperforming students is equally stressed, there by negating the common sense existing especially in Kerala with regard to the disinterest of constructivist postulates on underperforming students. As students travel with their teachers, exhibiting their strength and weakness, the teacher can exactly decide the specific pedagogic strategies useful for that particular set of children. The scope of peer teaching and the meaningful engagement of weak students have also been mentioned in this context. This peer interaction would enhance the satisfaction level of the students as it would help them to opine, express or even convince his fellow students.

Constructivist investment in examination is a highly debated one. Many practicing teachers have talked about its inability in supporting students to score good marks in the examination as it is not examination but life focused. But the participants oppose to this view by saying that better and insightful conversation would lead to better understanding and memory. Since the constructivist practices hook the students to be with the topic without deviating their attention and curiosity and naturally a mere revision at home will help them to score better in the examinations.

The scope for metacognition in constructivist classroom is also stressed. When the students participate in activities they do it with self consciousness or with full agency and it would enable them to be self driven individuals who are capable of tracking their own thought process leading to be a successful learners in the disruptive modern world. The question of primary language in constructivist classroom is undertaken with a highly favorable position on its usage meaningfully with in the classroom. The traditional dislike for mother tongue of the English teachers derived as the legacy of direct method is no longer supported. They propose that purposeful activity followed by Malayalam explanation will have direct impact with all types of students.

Key Arguments of the Students Supporting Presently Practicing Mode of Constructivist Teaching

- It focuses more on learning and hence we understand clearly. When you get more explanation it is better and we will get more content. .

- We understand everything. If you explain with fun then we can learn easily. We are interested and hence we understand better.
- We would like our teachers to teach us. Students will sit attentively and if you crack jokes in between, they add charm to the discussion. When teacher explains, he says many things which make us think about them. Incidentally, most of the teachers teach in traditional way.
- If you teach, it is easy for me to understand, but when we participate we like it better as it is made simpler.
- If the teacher reads and teaches us, we understand better. If the teachers explain, act and question, then it is no longer boring. Besides, we get the concept clear.
- When the teacher reads and explains it is simpler to understand the meaning of the story. When the teacher instructs, we get a serious but simple idea about the story.
- When teachers explain we get many things and no activities delay your understanding. As there is not much teacher talk you understand everything within the class itself.

Discussion

Even though majority of participants responded positively on the constructivist procedures for its effects in classroom, a very few students, especially the underperforming students argued for the implementation of behaviorist pedagogy within the classroom. They are excited about the teaching and the specific and focused explanations given by the teacher on stipulated lessons. They maintain that students get more inputs through teacher explanations and they even ask for making the explanation fun filled to make the lessons more bearable. When the teachers teach, the silences of the students do not mean their inaction or passivity, but they are thinking about what is being taught in the classroom. When teacher explains a concept, students get the same in easy and simple format which is missing in the cumbersome constructivist procedures where knowledge is unnecessarily delayed

from the teacher to the students through various activities. But it is pertinent to see that the students in the end have asked for a package which mixes both constructivist and behaviorist postulates simultaneously. They presume that explanations followed by an activity and questions would bring wonders among the students inside the classroom.

Key Arguments of the Students who Stood for a Mixed Method

A few students endorsed mixed approach. The students who opined favourably for mixed method belonged to the experimental group. These respondents experienced previously using methods in their class even before the experiment. These students experienced the CCAS integrated constructivist teaching during the research experiment. The major suggestions on mixed method are given below.

- I like both the strategies. I understand in both the classrooms. Ideas enter my head through these two classroom strategies.
- Behaviorism is apt with certain topics but constructivism is good with some other topics. Can we mix both?

Arguments for No Specific Method

Both are equal. With behaviorism, we just need to listen and relax, but with constructivism, which is a bit more demanding, you need to do all the work to understand concepts or topics.

Discussion

A few students were interesting with their curious suggestions in the study. They did not want to stress any one theory instead they wanted a meaningful blend of the two. They propose to take the best elements of the two philosophical positions and to design a third alternative. 'I like both strategies and I understand in both classrooms' was the comment and she questions the absurdity of violent separation of the two. She proposes the first blueprint for the post constructivist thought which presume that even constructivism can still be refined and bettered by considering the cultural context in which it is implemented and progressively negotiating with the multiple experiential realities inside the Indian classrooms.

Chapter -6

SUMMARY, FINDINGS AND CONCLUSION

- **Study in Retrospect**
- **Key Findings of the Statistical Analysis of the Results of the Achievement Test on English**
- **Major Findings of the Content Analysis of the Answer Scripts**
- **Important Findings of the Feedback Analysis**
- **Major Findings of the Focus Group Discussion**
- **Major Findings of the Validation**
- **Suggestions Derived from the Study**
- **Conclusions of the Study**

SUMMARY, FINDINGS AND CONCLUSION

The present study has been undertaken to investigate the influence of constructivist classroom assessment strategies in the acquisition of English language along with its impact in enhancing the attitude, participation and motivation of the students. The study has been titled '**CONSTRUCTIVIST CLASSROOM ASSESSMENT STRATEGIES FOR ENGLISH LANGUAGE TEACHING AT HIGHER SECONDARY LEVEL: DEVELOPMENT, IMPLEMENTATION AND VALIDATION.**' Findings and revealing insights have been generated through the systematic and scientific collection and analysis of data, which are documented in the previous chapters. It is customary in any educational research to scale up and discuss the findings of the research in the larger context of the society. This chapter titled Summary, Findings, Generalizations and Recommendations briefly presents the study in retrospect, findings and conclusion and the keys suggestions for further research.

Study in Retrospect

The study, being in the mixed mode, collected relevant data and analysed them both quantitatively and qualitatively. The researcher, for the purpose of the present study, adopted the Sequential Explanatory Design as illustrated by Pandya (2010). As part of the study, the researcher investigated the impact of constructivist classroom assessment integrated mode and the currently operational constructivism employed in Kerala on the achievement and English language acquisition of higher secondary students. The establishment of authenticity of the developed Constructivist Classroom Assessment Strategies and CCAS integrated lesson plan was administered among 30 teachers and 06 experts. As envisaged in the design of the study, the researcher conducted sessions in both the modes with a group of 124 (62 experimental group and 62 control group) students in Government Higher Secondary School Kattilangadi, Tanur in Malappuram district, Kerala, which is a Government Higher Secondary School consisting of students from all strata of society. Data were collected from students attending presently practicing and CCAS integrated modes of transactions and the data were put to statistical and qualitative analysis. The

qualitative analysis like Content Analysis, Feedback Analysis, Observation study and the Focus Group Discussion with the students were administered. Both quantitative and qualitative analysis proved the efficiency of constructivist classroom assessment integrated transactions in enhancing the language acquisition and energizing attitude, participation and motivation of the students in comparison with student who attended the conventional teacher dominated classroom.

Research Questions of the Study

‘Can constructivist classroom assessment strategies be developed and implemented effectively in the higher secondary English classrooms?’ was the primary research question of the study. Other research questions that prompted the present research were;

- 1) How far the constructivist classroom assessment strategies will enhance the achievement of the higher secondary students in English?
- 2) Can constructivist classroom assessment strategies be organized separately and be validated for English language teaching?
- 3) Can the classroom assessment strategy integrated mode of constructivist teaching enhance the language acquisition of higher secondary school students in English?
- 4) Can a newly developed valid model of ‘Constructivist Classroom Assessment Strategies’ be provided to the teachers community as result of this research?

Objectives of the Research

The study aimed at Developing, Implementing, and Validating the Constructivist Classroom Assessment Strategies for English Language Teaching. The specific objectives of the study were;

1. To develop specific Constructivist Classroom Assessment Strategies for English language at higher secondary level
2. To validate the authenticity of Constructivist Classroom Assessment Strategies to teach English at higher secondary level on the basis of teachers and experts perception

3. To plan and practice lessons in English for higher secondary school students in presently practicing constructivist mode and in the Constructivist Classroom Assessment Strategies integrated mode
4. To compare the achievement of learners who are treated with the presently practicing constructivist mode (Control Group) with that of the learners who are treated with Constructivist Classroom integrated mode (Experimental Group)
5. To draw inferences on validity of the developed Constructivist Classroom Assessment Strategies by exploring the effect of teaching English in the Constructivist Classroom Assessment Strategies integrated mode in:
 - a. Achievement in English Language Test
 - b. Creative Language Acquisition
 - c. Developing positive attitude in English language learning
6. To explicate the Constructivist Classroom Assessment Strategies in teaching English for higher secondary level on the basis of the research findings

Methodology of the Study

The study is explorative in nature and hermeneutical approaches are employed to investigate and interpret the individual perception.

Sample of the study included 124 students who were divided in to two groups- control and experimental groups. Authenticity of the developed Constructivist Classroom Assessment Strategies was assessed by 30 teachers and 06 experts.

The developed CCAS validated by employing the following methods;

- Direct validation by experts and teachers through direct method of establishing authenticity
- Comparison of the achievement of students in control group and experimental group before and after the intervention. The control group was treated with presently practicing method of constructivist teaching and experimental group was intervened by the CCAS integrated strategy. Independent sample t-test and paired sample t-test are administered to

find the significance of difference between Means of control and experimental groups at post and pre test levels.

- The qualitative strategies like Content Analysis, Feedback analysis, Focus Group Discussion, and Observation are used for collecting information to find the effect of CCAS integrated teaching.

The tools and materials prepared for the present research are listed here:

1. Lesson plans in presently operational constructivist method and CCAS integrated teaching method
2. Achievement test in English language
3. Authenticity Appraiser for teachers and experts
4. Content analysis guideline
5. Student Activity Observation Blank
6. Feedback reporting guideline
7. Focus Group Discussion guideline

Limitations of the Study

Serious efforts have been taken by the researcher to make the study as objective and systematic as possible. However, a few limitations need to be acknowledged here. The study is limited to sample group from plus two levels of higher secondary.

The study has focused only on the first two blocks of the English course book prescribed for the second year higher secondary students in Kerala. The researcher has confined the study to government school and hence could not explore the effect of constructivist classroom assessment integrated strategies in aided and un aided schools. The academic atmosphere of unaided schools is slightly different from government school. Thus extending the study to such schools is important, but not intervened presently.

The study has not attempted to measure the impact of constructivist classroom assessment integrated strategies on students from diverse socio economic strata which includes class, caste, gender and socio economic status.

Findings of the Study

- A. Framework for constructivist classroom assessment strategies is developed. The developed framework is validated and suggested for teaching English at higher secondary level.
- B. The analysis revealed that constructivist classroom assessment integrated transaction has significant edge over the currently operational constructivist teaching. It is found that the students who attended the constructivist classroom assessment integrated sessions in English have scored significantly high in comparison with their counterparts in the traditional constructivist classroom. There exists significant difference between the scores of Mean pre-test and Mean post-test of control group on the achievement test conducted in English. The high mean, variation of values and range of the post-test scores from those of the pre-test scores proved that teaching with presently practicing constructivist methods is effective to enhance the learning of students.

It is found that there exist significant difference between the scores of Mean pre-test and Mean post-test of experimental group on the achievement test conducted. The high values of the measures of central tendencies, the high variant distribution of the post test scores, from those of the pre-test scores and the significant t-value have proved that teaching with the constructivist classroom assessment strategies integrated teaching method is highly effective to enhance the learning of students. The obtained t-value of the mean comparison of post test scores of control and experimental groups is 10.9, which is a significant t-value. It means, there exist significant difference between the scores of control group and experimental group at post experimental level. It is revealed that constructivist classroom assessment strategies integrated teaching is more effective than the presently practicing

constructivist approach to enhance achievement in English among higher secondary school students.

- C. The study found that the students who attended constructivist assessment integrated classroom wrote creative prose and out of the box ideas in their answers in comparison with the students who attended the conventional, teacher dominated classrooms. While analyzing the answer scripts in the light of the social-familial background of the students, it is found that the constructivist thrust on primary language and cultural background of the students equipped the students to perform better and score higher in the achievement test in comparison with their counterparts in the traditional conventional teacher dominated classrooms.

Major Findings by the Content Analysis of the Answer Scripts

The content analysis of the answer script using specific perspectives has given certain findings. They are given under:

a. Students who Taught with CCAS Integrated Teaching are More Creative in Answering

The researcher has found satisfactory evidences to prove the presence of creative self expressions in the answers of the students in the experimental group. The creativity of expressions range from moderate to extreme. This creative affluence is apparent in answering questions from stories, poems and prose. The researcher has identified five elements reflecting creativity in answers which include- Creative Expressions, Multiplicity of Views, Metaphoric Expressions, Nuanced Engagement and Playfulness in Answers.

Students of the experimental group possessed all the elements in high degree where as the students in control group indicated three of them low and two moderate indicating the decreased presence of creativity in the answers of the students. The implication is that the constructivist assessment integrated classroom is dialogic and allowed students to express freely in the classroom.

b. Students who Taught with CCAS Integrated Teaching are Possessing Critical Perspectives in Answering than those Who Taught with Present Mode of Constructivist Teaching

The students in the experimental group have articulated critical perspective in most of their answers irrespective of the genre, lesson, discourse and the type of questions in comparison with the students in the Control Group. The researcher has identified five elements reflecting critical perspectives in answers which include, Insightful Observations, Meta cognitive Understanding, Critical Reflexivity, Philosophical Gravity and Organic. Students in the Experimental Group were found to be high in all the sub elements listed under critical perspectives. But the students in the Control Group were only moderate in insightful observations and critical reflexivity and low in the other three areas specified.

c. Students who Taught with CCAS Integrated Teaching are Possessing High Self Reflexivity in Answers

Due to the constructivist insistence on identity, cultural context, and primary language, the students of the experimental group have come up with critically reflexive and identity conscious answers. Researcher has identified five elements reflecting the self-reflexivity which include Identity Consciousness, Socio Cultural Sensitivity, Deep Engagement, Assertive, and Beyond binaries.

Regarding the elements identified under self reflexivity, the students of experimental group have indicated high in all the listed elements, whereas the students of the control group have indicated moderate in two areas like identity consciousness and deeper engagement. In three other areas the students of the control group have shown only low indicating the absence of reflexivity and critical sensibility in their answers.

d. Students who Taught with CCAS Integrated Teaching are Positively Reflecting Current Awareness in Answers than those who Taught with Presently Practicing Mode

Students in the experimental group have indicated high level of current awareness in their answers. The current awareness of the students extend beyond

knowledge about the latest developments, it also includes newer thoughts and fresher angles on issues at hand. The researcher has identified five elements reflecting current awareness of the student which include Current Awareness, Dialogic Perspectives, Learner Voice, Curiosity for Details, and Student Experience. The students in experimental group have shown consistently high awareness in terms of the current awareness in their answers, but the answers of the students in control group have indicated low levels of awareness in terms of three elements identified with regard to current awareness.

e. Students who Taught with CCAS Integrated Teaching are Having Positive Engagement with Socio-Economic Status than those who Taught with Presently Practicing Mode

The students of the Experimental Group have indicated high degree of engagement with their own socio economic status in the answers. The researcher has identified five elements of socio economic engagement of the students which include Experiential, Critically Aware, Socio cultural Sensitivity, Divergent Experience, and Social Locations. The students in the Experimental Group have shown high level of engagement with these elements listed and the students in the Control Group have shown low level. The students indicated moderate level of awareness with regard to the two components which are Experiential Awareness and Consciousness of Social Location.

f. Students who Taught with CCAS Integrated Teaching are Reflecting Original Thinking Highly than those Taught with Presently Practicing Mode

With regard to expressing original thinking in the answers, the students in the Experimental Group are ahead of the students in Control Group. They carried evidences of originally and fresh perspectives due to the rigorous constructivist engagement with in the classrooms. The researcher has identified five elements reflecting the original thinking which include Fresh Perspectives, Learner Support, Polyphonic Voices, Discursive and Micro Engagement. The students of the experimental group have indicated high level of originality where as the students of Control Group are low in four of the elements and moderate only in Polyphonic

Expressions in the answers. Their lack in original thinking in the control group may be due to the absence of discursive and democratic interaction within the classroom.

g. Students Who Taught with CCAS Integrated Teaching are Reflecting High Environmental Sensitivity

Regarding environmental awareness, students in the Experimental Group have shown high level of awareness on environment in comparison with their counterparts in the Control Group. The students of this group have gone beyond the regular sense of environmental sensitivity to link it with meaningful sharing and caring among the larger nature around us. The researcher identified five elements reflecting environmental sensitivity which include Eco Sensitivity, Value for Humanity, Universalism, Concern for the Marginalized, and Balanced and Mature. Students in the experimental group have shown significantly high level of environmental sensitivity in all the elements identified, where as the students of control group are moderate in ecological sensitivity and universalism. In all the other three elements the students indicated low level of environmental awareness in their answers.

h. Students Who Taught with CCAS Integrated Teaching Have Shown Attitude of Risk Taking in using Language

With regard to risk taking, a very important quality of any effective language user, the students in the Experimental Group have shown high attitude for risk taking or being adventurous in their responses in the answer scripts in comparison with the students of Control Group. The researcher has identified five elements reflecting the attitude of risk taking which include Risk Taking, Extended Analysis, Free and open ended, Close Reading, and Divergent thinking. The students of Experimental Group have shown high level in all elements in their answers where as the students in Control Group are low in three elements and just moderate in risk taking and free and open analysis.

i. Students who Taught with CCAS Integrated Teaching Show High Willingness to Quote Teachers than those who Taught in Presently Practicing Mode

Regarding the willingness to quote the teachers, the students in Experimental Group have shown high degree of willingness in comparison with the students who were placed in the Control Group. The researcher has identified five elements reflecting the willing to quote the teacher which include Quoting the teacher, Improvisation, Free and Open Ended, Students own Version, and Close familiarity with the text. The students in control group are low in four elements and moderate in the element Quoting Teachers.

j. Students Who Taught with CCAS Integrated Teaching are Presenting Multiple Perspectives Highly than the Students of Control Group

In terms of maintaining multiple perspectives, a higher order way of engaging with a text, the students in the Experimental Group have indicated high level in comparison with the students who were placed in the Control Group. The researcher has identified five elements reflecting the attitude of building multiple perspectives on the text which include Multiple Perspectives, Confident Engagement, Open Ended, Free interpretation, and Comprehensive Understanding. The students of experimental group have indicated high inclination for the listed elements. But the students in Control Group are moderate in two elements like multiple perspectives and open ended and low in all the three listed indicators.

Important Findings of the Feedback Analysis

The analysis of the feedback of students on the method of teaching they experienced revealed the effect of CCAS integrated teaching and constructivist teaching in the presently using mode. The feedback analysis exemplified the authenticity of CCAS integrated teaching than the other mode.

The students of the Experimental Group have found the constructivist sessions intellectually challenging in comparison with the teacher dominated traditional classrooms. These students cut across diverse categories of competencies including highly endowed and under-performing students. The comments of highly

endowed students range from 'ideas stirring' to 'teachers and students alike are vibrant' which are nothing but the foundational principles of constructivism. Similar endorsements have also been made by the under-performing which include observations like 'we could speak about things around us' and 'it makes us active'. In short, both the academically confidence and less confident students have found the constructivist assessment integrated sessions intellectually appealing.

Enthusiasm of the students of Experimental Group on constructivist procedures is found less in comparison with the students of the Control Group. The students in the control group found the sessions teacher dominated, teacher lead or teacher fronted. Teachers and not the students in the classroom were found to be active and the students were inactive indifferent and sleepy at times. It is pertinent to note that the monotony is spread among the students in the control group irrespective of their level, competence, attitude and interest.

With regard to tracking and supporting, the students in the Experimental Group have endorsed the constructivist procedures inside the classroom. The students in the Control Group are deeply upset with the lazy role of teachers in tracking and supporting the students, but the feedback from experimental group revealed that they get sumptuous opportunities for active participation in teaching process. The students in the control group found the teacher focusing more on the gifted and 'he did not even our names' was a disturbing comment from an average student.

The students of the Experimental Group have endorsed different types of texts and materials used as part of the transactions in the constructivist classrooms. Students found them 'useful' or 'our teacher used many' and they pointed to the extended use of materials in the progressive classroom which include charts, ICT, and even the life experiences of teachers linking textual components with the current situations. The materials from the text and outside the text helped the constructivist teachers to present the difficult concepts and to minimize the topic for the benefits of the students. However, a few students have mentioned about the reduced use of such materials inside the classroom. The students in the Control Group have complained that teacher rarely deviated from the texts. Students have also pointed to the

inadequate technological expertise of the teachers and they even lamented teacher attitude for not taking any help from the students in this regard.

The students in the Experimental Group have strong conviction about the use of previous knowledge of the students before starting a lesson. All the students endorsed the meaningful use of previous knowledge of students by the teacher before planning a session. The students in the Control Group reported that the teacher is too busy and focused on covering the portions prescribed. The students also found the long and winding explanation too demanding and a few students have pointed to the demanding individualized style of certain teachers.

The students in the Experimental Group who have been intervened with constructivist procedures found the classes truly interactive unlike the traditional constructivist classroom. This interaction angle has been underscored by the students using comments ranging from 'learn fast' to 'acquire new knowledge' besides 'enabling them to take their ideas out and to share experience with fellow students'. The students in the Control Group rarely participated in the knowledge construction process inside the classrooms, instead they always taught by the all knowing teacher in the classroom.

The students in the Experimental Group who have been implemented with constructivist classroom assessment integrated plans reported that they were assessed using learner friendly, non invasive assessment protocols. Formatives and ongoing assessment replaced the summatives at the end of the year. The students in experimental group have also reported the multiple assessment strategies implemented with them in the classroom beside extending the assessment identities tried in the classroom. The favourable attitude of the students is reflected in comments like 'help to understand better' 'teacher employs them in all chapters.' Multiple assessment also enabled the students to 'grow our thoughts' master the subjects while implementing the new concepts. The students of the experimental group also endorsed the questions posed during the session which made the sessions entertaining, life oriented and experiential.

The students in the Control Group reported very limited assessment activities inside the classroom. Paper and pencil test with teacher as the sole assessment identity of the classroom supported only the endowed and meritorious. Assessment is reported as imbalanced and unable to cater to multiple levels among the students. Besides this, assessment was not at all formative to track and support the progress of students in their learning.

Major Findings Revealed by Analyzing the Data Obtained from Focus Group Discussion

The students of the experimental group who participated in the Focus group discussion have advocated that the teaching was supportive to have self reflection on academic achievement, language skills, motivation and participation in learning. Participants of the FGD also pointed to the extra fun elements in the diverse activities in the constructivist classrooms. As a teaching approach, the students found the method as suitable for all types of students.

- Students grew more reflective and productive in CCAS integrated class. It gives diverse activities inside the class.
- The group activities in CCAS integrated class enabled the under performers to learn from their fellow students.
- In both methods of teaching, the activities with a purpose followed by appropriate Malayalam explanation made the class room transaction really interesting.
- Much of the teacher explanation is not understood by the students and hence it is important to minimize the teacher talk made in the guise of supporting student inside the classroom. Students from experimental and control groups have this opinion.
- CCAS integrated teaching gives opportunity for students initiatives in teaching tasks. These opportunities are less in presently practicing mode of

teaching. Students like peer teaching. The peer teaching activities help students to express their views

- Two students in the FGD supported the currently operational constructivist mode as the effective due to its capacity to make the learning focused and consequently leading to better understanding.

Findings of the Study in Brief

The following findings are the crux of the study

- The Constructivist Classroom Assessment Strategies (CCAS) are authentic and credible to integrate with the constructivist teaching. The developed CCAS are found authentic by teachers and experts.
- Students who are taught with CCAS integrated constructivist teaching have high achievement in English language than the students who are taught with presently practicing mode of teaching. CCAS integrated teaching is more effective than the presently practicing mode of teaching in enhancing achievement in English language
- The Constructivist Classroom Assessment Strategies integrated teaching is more effective than the regular mode to enhance

A. Creative Language Acquisition

B. Developing positive attitude in English language learning

- The Feedback Analysis, Focus Group Discussion and Self Reflexive Reporting of the students of experimental and control groups of the study proved that students liked the CCAS integrated teaching more than the regular mode teaching.
- The research findings are supportive to state that the CCAS integrated teaching is a best option in constructivist teaching than the presently practicing constructivist mode. The CCAS must be rejuvenated according to the learning contexts, learner capacities, socio cultural backgrounds, primary language, and skills and abilities of the learners.

Suggestions Derived from the Study

Regarding Constructivist Teaching and Assessment

- Constructivism, both in theory and practice should be re-emphasized in teaching approach in the higher secondary schools in Kerala.
- The materials, methods and evaluation procedures should be in tune with the constructivist tenets to support the learning -teaching procedures in the classroom.
- Teachers must be properly trained regarding the foundational concepts of constructivism in its principles and practices. This program should be tailor made and monitored seriously to ensure that attendees achieve the desired learning out comes.
- Constructivist classroom assessment integrated teaching- learning strategies have been proved to be enhancing the achievement of students and acquisition of language skills along with enhancing motivation, participation and the positive attitude of students.
- The meaningful integration of mother tongue and the cultural background of the students have significantly enhanced achievement of the students, supporting the fact that mother tongue and cultural background of students must be meaningfully tapped inside the classroom.
- The current approach of emphasizing summative assessment at the end of the academic year must be stopped. The constructivist, formative, daily based, ongoing assessment should be privileged.
- The constructivist edge in developing the critical thinking skills of the students need to be stressed while conceptualizing new materials for English teaching in higher secondary level in Kerala.
- Higher Secondary education is a link between school education and higher education and hence more focus should be given to the writing skills of the students and special attention should be given for creating special materials for developing writing skills at this stage.

- The process oriented, activity based and thinking oriented classroom should be made mandatory up to higher secondary segment considering its advantage for the learning of the student in English classrooms.
- Multiple assessment strategies employed and the constant feedback given to the students need to be emphasized as they impact the academic achievement of the students inside the classrooms.
- Constructivist classroom assessment integrated mode has been ratified by the students as the most preferred pedagogic procedures owing to its capacity in enhancing the academic achievement, language skills, motivation and participation of the students.
- Timely and appropriately placed questions by the constructivist teachers need to be stressed in classroom as they would transform classroom into a democratic, progressive and dialogic space. As much as possible these questions should be open ended and generative in nature.
- It is very important to emphasis the primary language and cultural background of the students as they have been found to be significant in enhancing the academic achievement of the students. Besides, NEP 2020 too has also advocated for the implementation of multi lingual pedagogy inside the classrooms.
- The study found that much of the teacher explanation is not understood by the student and hence it is important to minimize the teacher talk made in the guise of supporting students inside the classroom.
- The peer teaching- learning possibilities need to be enhanced in the classroom as they are found to be contributing significantly to the performance of the students especially the underperforming students inside the classroom.
- With a few students, the currently operational constructivism is the effective mode owing to its capacity to make the learning focused and consequently leading to better understanding. Besides, these students found the teacher explanation effective if it is peppered with fun or preceded by an activity. This perception must be addressed. Teaching need not be on a same

pedagogic style for entire year. Mixed methods can also be adopted for teaching at higher secondary level.

- Constructivist classroom assessment integrated lesson plan should incorporate the latest developments in the subject, pedagogic strategies and evaluation procedures.

Conclusions

The present study titled **CONSTRUCTIVIST CLASSROOM ASSESSMENT STRATEGIES FOR ENGLISH LANGUAGE TEACHING AT HIGHER SECONDARY LEVEL: DEVELOPMENT, IMPLEMENTATION AND VALIDATION** was conducted to develop, validate and investigate the influence of constructivist classroom assessment practices on achievement in English and language acquisition. The study being in the mixed approach employed both qualitative and quantitative modes to investigate the problem proposed for the study. The researcher employed the design Sequential Explanatory Model. It is pertinent to note that both the qualitative and quantitative analysis generated the same result in validating the strategy and finding the effect of the same in teaching. Besides pointing to the general edge of the constructivist classroom assessment integrated teaching over the currently operational constructivist mode, the study also suggested many revealing and path breaking findings to be implemented in the educational scenario of Kerala especially for the benefit of students.

The study emphatically asserts the need for re establishing constructivism both in its theory and practice as the underlying philosophical framework of the Kerala higher secondary school education. The findings are all the more important in Kerala school context which is on the verge of a curriculum revision process. The study also points to the lack of nuanced understanding among teachers on the constructivist philosophy and its practice which needs to be urgently addressed by organizing series of training programs considering the area required and the level of expertise and experience of the participating teachers. The four skills of language like listening, speaking, reading, and writing have been deeply impacted by the constructivist classroom assessment integrated teaching mode as proposed in the present study.

Teacher talk, the most debated concept in English language teaching has been considered low by the students attended the study. In the light of this finding, teacher must minimize the teacher talk in teaching sessions. The study endorsed the progressive use of peer teaching possibilities in the classroom to support the teaching-learning process inside the classroom. The constructivist classroom teaching should be updated and it must be enriched by the recent developments in the discipline and the most suitable and innovative transactional strategies to transact them and to search for the learner friendly and non invasive evaluation procedures.

Chapter - 7

RECOMMENDATIONS

- **Educational Implications of the Study**
- **Suggestions for Further Research**

RECOMMENDATIONS

The present study investigated the influence of constructivist classroom assessment integrated strategies in enhancing achievement in English subject and in the better acquisition of English language by the higher secondary students. It also explored how these strategies energised the students positively inside the classroom.

The study titled CONSTRUCTIVIST CLASSROOM ASSESSMENT STRATEGIES FOR ENGLISH LANGUAGE TEACHING AT HIGHER SECONDARY LEVEL: DEVELOPMENT, IMPLEMENTATION AND VALIDATION is experimental in framework and following a mixed method design. The quantitative and qualitative analysis undertaken by the researcher clearly proved the pedagogic, creative and achievement edge of the constructivist classroom assessment integrated strategies with the higher secondary students. The assessment centered teaching implemented inside the constructivist classroom also energised the attitude, participation, motivation and creative self expression of the students both in oral and written formats. In order to further validate constructivist classroom assessment integrated procedures before the actual experimentation, the researcher has submitted the evolved design to the practicing teachers and experts in the field who in turn endorsed the design to be used by the teachers handling English in higher secondary stream.

Educational Implications of the Study

In the light of the major findings of the present study regarding the ways and means of enhancing quality and effectiveness of English language teaching employing constructivist classroom assessment strategies integrated teaching at the higher secondary level in Kerala, the investigator proposes the following recommendations to be implemented in schools of Kerala:

➤ **Re Emphasize Constructivist Philosophy in Kerala Education**

There is a perception among some of the stakeholders in Kerala on constructivist philosophy that it has not brought in the expected educational outcomes in the curricular lives of students in Kerala due to many reasons like ill equipped teachers, attitude of parents and teachers, loaded curriculum and faulty evaluation protocols. To address this issue the system should re-emphasize constructivism as the basic foundational framework of the curriculum in Kerala both in theory and in practice to re energize education in general and English Language Teaching in particular.

➤ **Specific Tailor Made Training Programmes for Teachers**

A section of teachers are still apprehensive about the educational value of this progressive philosophy due to their insufficient understanding of the theory and practices embedded in it. This lack in awareness creates lot of issues in the academic lives of students in schools. The major stakeholders of education must be given specific, tailor made training in the normal fundamentals of constructivism, employing constructivist classroom assessment strategies integrated teaching. The training program must ensure that all teachers have acquired the basics of the philosophy by formulating a creative assessment procedures. Parents should also be trained regarding their renewed roles in constructivist philosophy.

➤ **Constructivist Transformation of Materials, Methods and Evaluation Procedures**

In spite of the years of implementation of constructivism in school education in Kerala, methods, materials and assessment procedures are still 'behaviourist' in nature thereby creating lot of confusion in the minds of the students. The issue is aggravated by the presence of a section of teachers still glamourizing the value and effect of behaviourist postulates inside the classroom.

In the context of English language teaching in Kerala, the learning materials, transactional strategies and evaluation procedure should be designed keeping in mind the constructivist postulates in education and teachers should be taken into confidence while taking the key policy decisions in this regard. Representation of teachers should be ensured in the process.

➤ **Constructivist Classroom Assessment Integrated Strategies Should be Made Mandatory**

Presently, assessment is the weakest link in the constructivist educational transformation in Kerala. It is attempted only at the end of the session or year without stressing the formative and ongoing aspect about it. Besides, the teachers try only the routine strategies for the same which make assessment very dry and exacting procedures for the students. The constructivist classroom assessment integrated mode should be implemented and teachers must be encouraged to implement the assessment integrated constructivist strategies for the better learning experience for the students.

➤ **The Scope for Constructivist Classroom Assessment Integrated Strategies in English Classrooms Must be Addressed**

Presently, the English Language Teaching scene in Kerala is not fully constructivist. Language materials and methods still have behaviourist inclinations. Assessment scene is largely untouched by the constructivist transformation and it is still influenced by the paper and pencil tests and similar traditional strategies. Constructivist classroom based assessment integrated mode has to be popularized among English teachers to enhance achievement in English, both in the subject and skill components. Besides, the assessment integrated constructivist mode and its impact on the attitude, participation level and motivation of students should also be popularized among the diverse stake holders.

➤ **English Teachers Must Explore the Social and Pedagogic Possibilities of the Primary Language and Cultural Background of the Students**

Many English teachers do not still accept the pedagogic and cultural value of the primary language and cultural background of the students. They look at it as an unnecessary distraction from the project English. It creates umpteen issues for students at home and in schools. Constructivist classroom procedures with special sensitivity towards the primary language and the cultural background of the students should be promoted to enhance the performance of both high and low performing students. It is pertinent to note that the NEP 2020 has already endorsed the multilingual pedagogy to tap the multi lingual edge of Indian classrooms.

➤ **The Metacognitive and Self Reflective Procedures Inside the Classrooms Should be Promoted**

Even though the cognitive aspects of the curriculum are much stressed, the reflective and metacognitive processes which are vital to the constructivist curriculum are largely under addressed in Kerala classrooms. Besides, they are essential to convert the classroom into a thinking space which could be a great support for the formation of a knowledge society.

In the light of the constructivist emphasis on metacognition and reflection, teachers need to generate activities that develop these skills among students which are very important to survive in the disruptive post modern world.

➤ **Questions Plenty Classrooms Must be Promoted**

Constructivism generally expects a dialogic and interactive space within the classroom. All kinds of questions are regarded and the skill of asking questions are highly appreciated as it is vital to form an entrepreneurial society. Teachers and students must be made aware of the benefits of questions in widening the cognitive universe of the students inside the classrooms. Problem posing components in education must be developed in the state of Kerala.

Teacher talk, which is the typical offshoot of the behaviourist philosophy, is done in the guise of supporting the students from low socio economic status is a big issue afflicting English classrooms in Kerala. However, students devalue the same realizing the role of activity based thinking oriented interactive classrooms. Teacher talk should be minimized and diverse interaction possibilities must be tapped within the classroom.

Values are either valorized or demonized and no objective analysis on it is made in Kerala context. Since teachers are dealing with adolescents in classrooms, the question of values need to be stressed seriously. Serious consideration should be given to values inside the classroom while dealing with adolescents. Values are to be caught and not taught and teachers should create an ambience to develop values among students. It cannot be a textual component, instead it has to be presented organically in the classroom.

Suggestions for Further Research

Responsible research cannot ever claim that it has comprehensively addressed all the existing concerns in an area of study. Consequently, it is academically essential to cite the limitation of the present study so that lapses can be filled in to ensure the smooth continuity in research. The researcher suggests the following areas for the study.

- The present research can be scaled up to the sample groups that represent all types of schools in Kerala. The researcher has not attempted to investigate the academic achievement due to constructivist classroom based on gender, class, caste and socio economic status of the students which could be undertaken to get a nuanced socially rigorous perspective on the issue.
- A comparative analysis of different types of pedagogic analysis can be conducted in survey method to find its impact in experimental method to establish the effectiveness of teaching methods.

- The study focused on achievement in English language as the key dependent variable in the study, the other variables like learning style, learner motivation could also be incorporated as part of the study.
- The study is explored only in English language teaching and learning of higher secondary schools. The effect of CCAS integrated teaching on other school subjects can also be studied to establish the scope of this pedagogic approach.

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APPENDICES

Appendix I

N.S.S. TRAINING COLLEGE OTTAPPALAM
Research Centre in Education

LESSON PLAN FOLLOWING CURRENTLY PRACTICING CONSTRUCTIVIST MODE

Mohammed Shiyas M V
Research Scholar

Dr. Sankaranarayanan Paleeri
Supervising Teacher

Subject	: English	Time	: 60 mts
Name of Unit	: 'Mending Wall' by Robert Frost.	Grade	: II nd Year
Topic	: Walls and Human Life		HSS
Previous Knowledge	: Students know about walls an their uses and misuses		

Thematic Outcomes

- Read, understand and appreciate the poem.
- Enjoy the various poetic techniques employed in a poem.
- Write small poems in English Language

Linguistic Outcomes

- Write brief review of a poem
- Write short appreciation of a poem.

Teaching Learning Experience	Response and Evaluation
<p><u>Trigger Activity</u></p> <p>The teacher makes a very brief introduction on the poem, poet and the age in which the poem is written.</p> <p><u>Loud Reading of the Poem by the Teacher</u></p> <p>Teacher recites the poem with necessary pause, tone and intonation. Students listen to the poem keenly keeping their eyes closed. Teacher asks a few global questions based on the poem after his recitation.</p>	<p>Students listen to the lecture by the teacher passively.</p> <p>The students listen to the poem carefully and answers the questions posed by the teacher.</p>

Teaching Learning Experience	Response and Evaluation
<p><u>Vocabulary Treatment</u></p> <p>Teacher treats some of the crucial words in the poem like walls, neighbor, fence in the poem and the students get the meaning of these words before they try to read the poem individually.</p> <p><u>Silent Reading by the Students</u></p> <p>Students individually read the poem silently and use the while reading questions given at the right side of the text to comprehend the poem independently without the support of the teachers</p> <p><u>Comprehending the Poem</u></p> <p>Teacher asks a few question which include both global and local questions on the thematic and aesthetic aspects of the poem.</p> <p><u>Teacher Explanation on the Poem</u></p> <p>Teacher reads and explains each line of the poem in detail, even trying to bring in explanation in mother tongue of the student so that students could grasp the ideas present in the poem.</p> <p>Follow Up Activity</p> <p>Based on the discussions and explanation made on the poem by the teacher, students are asked to write a brief review of the poem.</p>	<p>Students understand the meaning of the words used by the poet in the poem. He can also use a few words in his own sentences.</p> <p>Students reads, understands and appreciates the poem independently by making use of the while reading questions.</p> <p>Students answer the questions based on the poem. Correct responses by the students are appreciated and wrong response are immediately corrected by the teacher.</p> <p>Students listen and understand the key ideas and arguments made in the poem. Mother tongue used in the class room supports the less endowed students in the class.</p>

Appendix II

N.S.S. TRAINING COLLEGE OTTAPPALAM
Research Centre in Education

LESSON PLAN FOLLOWING CONSTRUCTIVIST CLASSROOM ASSESSMENT STRATEGIES (CCAS) INTEGRATED MODE

(Model Plan)

Mohammed Shiyas M V
Research Scholar

Dr. Sankaranarayanan Paleeri
Supervising Teacher

Subject	: English	Time	: 60 mts
Name of Unit	: 3L's of Empowerment	Grade	: II nd Year
Topic	: Walls and Human Life		HSS
Previous Knowledge	: Role of women inside their homes and neighbourhood. Women in cinema and other media		
Skills	: LSRW, Critical thinking		

Thematic Outcomes

- To understand the three Ls of empowerment.
- To understand how the 3Ls lead to women empowerment.
- To understand the challenges involved in women empowerment.
- To develop a creative personal action plan in the context of own life

Linguistic Outcomes

- Develop the skills of writing small speeches.
- Develop the ability to participate in speeches and debates.

Teaching Learning Materials

- Videos
- Course book
- Reflective Writing Journal.

Teaching Learning Experience	Response and Evaluation
<p>Trigger Activity</p> <p>Teacher starts a discussion on Women Empowerment. They are motivated to look at the topic at their personal level first and then moving on to other dimensions including social and global level.</p>	<p>Students engage in discussion. Certain students participate confidently but some others are not that confident.</p>

Development of Constructivist Classroom Assessment Strategies

Teaching Learning Experience	Response and Evaluation
<p>Assessment</p> <p>Teacher observes the students and note down the performance level of the diverse students.</p> <p>One Minute Speech in Circle</p> <p>Teacher puts the students in six groups of ten students each and each student in the group will be made to speak for one minute on the topic women empowerment.</p> <p>Assessment</p> <p>Teacher and fellow students observe and feedback on the performance made by the students. At times, the fellow teachers can also be invited for guaging the students. Specific indicator for evaluation will make the process foolproof.</p> <p>Video Presentation of the Speech.</p> <p>The teacher plays the video of the speech The 3Ls of Empowerment by Christine Lagarde and the students are asked to watch it carefully and to take notes in between. Teacher pauses the video at relevant points and ask questions based on the video to the students.</p> <p>Assessment</p> <p>Teacher evaluates the responses made by the students. Peer evaluation also happens in this activity. Teacher also checks the note book of the students.</p> <p>Reading Session</p> <p>Students are put in 6 groups and two groups each will be assigned to work on one L and each group is asked to make mind map and an oral</p>	<p>One student each in the groups stand and speak for one minute on the given topic and the fellow students listen and encourage the speaker with words and gestures</p> <p>Students note down the key points and respond meaningfully to the questions of the teacher.</p> <p>Students participate in reading and making mind maps on the texts and the teacher roams</p>

Teaching Learning Experience	Response and Evaluation
<p>presentation based on the area assigned to the group. After the presentation of the mind map and the oral presentation a general discussion will be made inside the classroom regarding how three Ls are similar and dissimilar in their roles for empowering women.</p> <p>Assessment</p> <p>Self, peer and teacher evaluation are conducted inside the classroom. Teacher watches the good readers and support them based on their needs and motivates the weak by providing with necessary care and support in reading.</p> <p>Reflective Writing</p> <p>The students are asked to write a short essay on Challenges of Women Empowerment in Kerala. The teacher employs process based approach in enabling the students to write the essay.</p> <p>Assessment</p> <p>Teaches moves around and watch the student noting both the positive and negative writing habits of the children. Peer and self assessment possibility are also tapped here.</p> <p>Personal Action Plan</p> <p>To consolidate the various activities employed in the class room, the teacher asks the students to prepare an action plan for the next month to refine their skills and talents in the context of empowering themselves to fit in the new century.</p>	<p>around and observes the students. She supports the needy in the process.</p> <p>Students go through the various stages of process based approach to writing which include pre writing, writing and post writing activities.</p> <p>Students prepare end notes discussing with the fellow students. Teacher supports the needy inside the classroom.</p>

Development of Constructivist Classroom Assessment Strategies

Teaching Learning Experience	Response and Evaluation
<p>Assessment</p> <p>Teacher reads and assesses end notes prepared by the students and provide the necessary feedback to the students.</p> <p>Follow Up Activity</p> <p>Search the Google and find the texts of two great speeches by APJ Abdul Kalam (I Will Fly) and Nehru (The Tryst with Destiny) and prepare presentation for the next class.</p>	

Appendix III

N.S.S. TRAINING COLLEGE OTTAPPALAM
Research Centre in Education

ACHIEVEMENT TEST IN ENGLISH FOR SECOND YEAR HIGHER SECONDARY STUDENTS

Mohammed Shiyas M V
Research Scholar

Dr. Sankaranarayanan Paleeri
Supervising Teacher

Part 1 English

Time: 1 hour

Class: HSS -2nd year.

Score: 30 score.

- 1) Which are the three Ls of women empowerment?
- 2) What is the central conflict in the play 'The Hour of Truth'?

(2x1=2 score)
- 3) What is the role of a mother in a family?
- 4) How do values influence the character Baldwin in the play 'The Hour of Truth'?

(2x2=4 score)
- 5) Write a character sketch of grandfather in the life writing 'Horegallu'.
- 6) Write a paragraph on the treatment of friendship in the story 'Amigo Brothers'.

(2x5=10 score)
- 7) Based on your reading of the story ' Matchbox', write a short speech on the topic 'Plight of women in the traditional patriarchal Indian family system'.
- 8) Write an essay on the contrasting views on walls as presented in the poem 'Mending Wall'.

(2x7=14 score)

Appendix IV

N.S.S. TRAINING COLLEGE OTTAPPALAM Research Centre in Education

VALIDATION INDICATORS FOR CCAS FRAMEWORK

Mohammed Shiyas M V
Research Scholar

Dr. Sankaranarayanan Paleeri
Supervising Teacher

Read all the statements carefully. Mark your responses in scores. Circle the score that you choose. Your first response is the best response. Circle only one score.

Sl. No.	Statements	Score				
		Low satisfaction				High satisfaction
1	The CCAS design is apt for constructivist classroom teaching	1	2	3	4	5
2	It is apt to integrate with constructivist lesson planning	1	2	3	4	5
3	Entry details in the CCAS design are comprehensible	1	2	3	4	5
4	It is accurate for formative assessment	1	2	3	4	5
5	It provides multiple opportunities for continuous assessment process	1	2	3	4	5
6	It is learner centered and assure learner engagement	1	2	3	4	5
7	It is able to assess the learning outcomes during and after the lesson	1	2	3	4	5
8	It is apt for technological integration	1	2	3	4	5
9	It is apt for continuous and comprehensive assessments	1	2	3	4	5
10	The CCAS framework is supportive for constructivist teaching	1	2	3	4	5

Appendix V

N.S.S. TRAINING COLLEGE OTTAPPALAM
Research Centre in EducationVALIDATION INDICATORS FOR CCAS
INTEGRATED LESSON PLANMohammed Shiyas M V
Research ScholarDr. Sankaranarayanan Paleeri
Supervising Teacher

Read all the statements carefully. Mark your responses in scores. Circle the score that you choose. Your first response will be considered. Kindly choose only one score.

Sl. No.	Statements	Score				
		Low Satisfaction				High Satisfaction
1	The lesson plan taps the latest developments in the topic covered.	1	2	3	4	5
2	The plan arranges slots for individual, pair and group activities	1	2	3	4	5
3	The lesson plan employs ICT possibilities meaningfully.	1	2	3	4	5
4	This plan is effective in a arranging slots for CE activities.	1	2	3	4	5
5	The plan has slots for evaluating diverse abilities of the students.	1	2	3	4	5
6	This plan is suitable for process based evaluation.	1	2	3	4	5
7	This plan is suitable for Unit based evaluation.	1	2	3	4	5
8	This plan carries multiple slots for unit based evaluation.	1	2	3	4	5
9	This lesson plan helps to design best TE questions.	1	2	3	4	5
10	This plan assimilates values and attitudes of children.	1	2	3	4	5
11	This plan fosters better relation between teacher and students.	1	2	3	4	5
12	This plan maintains multi disciplinary approach in class room interactions.	1	2	3	4	5

Appendix VI

N.S.S. TRAINING COLLEGE OTTAPPALAM
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CONSTRUCTIVIST CLASSROOM ASSESSMENT STRATEGIES (CCAS) INTEGRATED LESSON PLAN SUPPLIED TO TEACHERS AND EXPERTS FOR VALIDATION PURPOSE

Mohammed Shiyas M V
Research Scholar

Dr. Sankaranarayanan Paleeri
Supervising Teacher

Subject	: English	Time	: 2 hrs
Name of Unit	: Crime and Punishment- RK Narayan	Grade	: II nd
Topic	: Indian system of Education, Parenting, Teacher Student relation	Year	: HSS
Skills	: LSRW		

Thematic Learning Outcomes

- Students are sensitized about parenting, teacher- students relation and meaningful educational process.

Linguistic

- Reads and appreciates short stories.
- Writes character sketches and write ups based on the story.
- Participate in debates and discussions and makes short speeches on relevant topics.

Teaching Learning Experience	Response and Evaluation
<p>General Discussion</p> <p>The teacher starts the session by inviting students to participate in a general discussion on the topic 'Will Artificial Intelligent Replace Teachers in the Near Future?'</p> <p>Assessment</p> <p>Teacher observes and notes the various responses made by the students. Notes the students that need special care and support.</p>	<p>The students make random responses related to the topic. All types of students are invited for the process.</p>

Teaching Learning Experience	Response and Evaluation
<p>Reading Session</p> <p>The teacher gives a brief introduction on the story "Crime and Punishment" by RK Narayan and just kickstarts story and stops at a very interesting moment and ask the readers a few charging questions before they were asked to read the story.</p> <p>Assessment</p> <p>The teacher moves around the class and observes each student in the classroom and watches the reading of the students and intervenes if any support is required from the side of the students. Notes down the specific reading issues faced by the students in his note book to be addressed at a later stage.</p> <p>Reading Comprehension</p> <p>The teacher asks a few questions, both local and global, related to the lesson once the students finish the assigned portion for reading.</p> <p>Assessment</p> <p>Teacher and the fellow students watch, observe and assess the answers given by the students on the various questions posed. Both peer and teacher assessment is undertaken here.</p> <p>Theatre Activity- Performance Based</p> <p>After reading the story and the meaningful comprehension session, the teacher divides the students into eight groups and two groups each are assigned with one episode from the story. The following are the key</p>	<p>Students read the story individually and the teacher moves around the class to address any specific reading difficulty from the side of the students.</p> <p>The students answer the questions posed by the teacher. Teacher observes the quality of the answers and supports the underperforming students and megaphones the quality answers produced by the well performing students.</p> <p>Students form the groups and discuss the assigned episode in the context of the lesson. They understand the episode thoroughly and accept the diverse roles possible in the episode.</p>

Teaching Learning Experience	Response and Evaluation
<p>episodes presented in the story and students can choose any one. The students are given choices with regard to the performances. They can present episodes in the form of a skit, short film, audio drama or mime.</p> <p>Slapping Episode Parents Episode Revenge Episode Reconciliation Episode</p> <p>Assessment</p> <p>The teacher and the fellow students watch and assess the activity of the students during script writing, rehearsal, performance and presentation using the specific indicators evolved collaboratively by the students. The possibilities of self, peer and expert assessment are also explored.</p> <p>Project Based Activity</p> <p>How Adolescent friendly are our classrooms?</p> <p>The teacher invites the students for a minor research activity inside the classroom and he gives a small briefing on the importance of having a research attitude among students. Topic of the research is pertinent because the story "Crime and Punishment" details the relationship between a teacher and his student. Students are also briefed about the various stages of a minor project.</p>	<p>Later they start rehearsing for the final presentation.</p> <p>The students sit in five groups for preparing the questions to be used in survey and they decide the five pertinent topics related to the diverse aspects of adolescent life. The help of the teachers is very crucial here.</p> <p>Physical Wellbeing Emotional Wellbeing Social Wellbeing Domestic wellbeing Academic Wellbeing</p> <p>After preparing the questions, the students interview the members of the other groups using the questions prepared and they jot down the responses carefully for making the</p>

Development of Constructivist Classroom Assessment Strategies

Teaching Learning Experience	Response and Evaluation
<p>Assessment</p> <p>The possibility of self, peer, teacher and expert assessment are tapped in this activity. Relevant indicators will be used to assess the students at the diverse points of the project activity inside the classroom.</p> <p>Creative Activity: Re Imagining the Narratives on Adolescents</p> <p>After the research activity with keen participation of students in the classroom, the teacher shares two unforgettable positive experiences related to adolescence life in Kerala. Now the students are put in groups and they are asked to think and discuss interesting and anecdotes on the life of adolescence and to finalise the best two from each groups.</p> <p>Assessment</p> <p>The possibility of peer and teacher assessment is explored in this activity. Here also specific evaluation indicators will be employed for the purpose.</p> <p>Follow Up Activity</p> <p>Students are asked to read any two stories of RK Narayan and prepare a detailed review of these stories. They can search the Google for the stories and the presentations can be oral, ICT based or dramatic depending on the choice of the students.</p>	<p>presentation on taking care of adolescents inside the classroom after this activity.</p> <p>The students sit in group for discussing the interesting anecdotes on adolescent life in Kerala before participants are invited to make presentation in the general group.</p>

Appendix VII

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STUDENT ACTIVITY OBSERVATION BLANK

Mohammed Shiyas M V
Research Scholar

Dr. Sankaranarayanan Paleeri
Supervising Teacher

Date of Observation :

Name of the Observer:

Item	Comments or Remarks
Class Environment	
Constructivist Teaching Strategies	
Integration of Assessment into Learning	
Students Participation	
Differentiation or Personalization	
Critical Thinking and Problem Solving Skills	
Teacher Role Inside the Classroom	
Alignment of Assessment and Learning Outcomes	
Evidence of students' learning progress	
Overall Effectiveness.	

** Extra sheets can be used to give remarks*

Appendix VIII

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FEEDBACK REPORT GUIDELINE

Mohammed Shiyas M V
Research Scholar

Dr. Sankaranarayanan Paleeri
Supervising Teacher

Name of the Student :

School :

Date :

District :

Duration:

The feedback is collected on the following key questions.

1. Is the class intellectually inviting?
2. Does the teacher track the students?
3. Does the teacher use both primary and manipulative materials?
4. Does the teacher check the previous knowledge of the students meaningfully?
5. Does the teacher interact with students to help them construct new knowledge?
6. Does the teacher provide feedback to students?
7. Does the teacher employ multiple assessment strategies inside the classroom?
8. Is the classroom process oriented?
9. Does the teacher arrange group activities inside the classroom?
10. Is there space for student reflection after each activity?
11. Does the teacher employ diverse activities in the classroom?

Appendix IX

N.S.S. TRAINING COLLEGE OTTAPPALAM Research Centre in Education

FOCUS GROUP DISCUSSION GUIDELINE

Mohammed Shiyas M V
Research Scholar

Dr. Sankaranarayanan Paleeri
Supervising Teacher

Date:

Venue:

Time:

Duration:

-
1. Topic and Moderator : Presently practicing constructivist classes and CCAS Integrated classes
 2. Purpose of the discussion: Concept, Comparison and Explanation.
 3. Number of participants : 10
 4. Grade Level : IInd Year HSS Students
 5. Questions : Open Ended
 6. Information Gathering : Diary of the FGD
 7. Ethical Consideration : Equal opportunity for all participants
 8. Limitation : No notable limitations
 9. Conclusion : Report presented before the group in brief.
-