

FACILITATING LEARNING OPPORTUNITIES THROUGH MODERN TECHNOLOGY AMONG DIFFERENTLY-ABLED STUDENTS

Submitted in partial fulfillment of the requirements for
the award of Master of Arts degree in English Literature

by

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SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

Accredited with Grade "A" by NAAC

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BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **SHALINI N (39970007)** who carried out the project entitled **"FACILITATING LEARNING OPPURTUNITIES THROUGH MODERN TECHNOLOGY AMONG DIFFERENTLY ABLED STUDENTS"** under my supervision from June 2020 to April 2021

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ABSTRACT

Owing to physical or mental disabilities, disabled students often encounter more difficulties in learning. In an effort to improve their learning, researchers have adopted technology-supported tools to enhance disabled students' adaptability to the learning environment and their learning achievement. The application of technology-supported education has gradually increased in recent years. However, there is still a lack of investigation and development trends of integrating technologies into education. The aim of the project was therefore to facilitate learning opportunities using technology, such as learning devices, learning strategies, learning domains and research issues, research subjects, types and level of disabilities, and learning environments. The learning strategies still tend to be conservative since the bulk of studies adopted the guided learning strategy. In addition, the appliance of technology has expanded to each learning domain, but is especially focused on grade school students and resource classrooms. Most importantly, the implementation of technology-supported education tends not to result in teaching difficulties due to disabled students having different types and levels of disabilities. Recent reports suggest a rise within the number of people with cognitive and developmental disabilities. To ensure equal opportunities for these learners, education practices must be appropriately improved and scaled. Aim of the project is to analyze and explore the trends of integrating technology in special education. Implementing strategies for listening, writing, reading, and speaking skills among disabled students and implementing computer assisted tools to make learning process simple. Making the students involved in learning using modern technologies.

Keywords: Differently-abled, Facilitating, Learning, Modern, Technology

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CHAPTER I

1 INTRODUCTION

Modern ways to find out foreign languages is engaging, challenging, fun, and interactive. There are currently a huge amount of resources out there to assist anyone serious about learning a replacement language. Many of those have many benefits over the more traditional way of learning them. But, like anything in life, this is often not for everybody. If you favor the real-world interactive sort of learning from a true person then do this instead. This was the most important breakthrough in technology-based learning. As bulky physical books gave thanks to digitized text, carrying around your learning materials became very easy indeed. Having dictionaries digitized made carrying around reference materials incredibly easy. Today, most of those can easily be stored on a Smartphone and that they tend to require up less memory than most games. a number of them are even ready to provide translation services which are collated and reviewed by practicing bilingual users. The utilization of technology in education helps break the barriers for people with disabilities and supply them with access to the foremost relevant educational programs. Properly designed software and hardware allow students with special must get modern education and achieve any required information online. Technology helps provide students with individual learning events, enables reaching higher flexibility and differentiation in educational methodologies. With modern technology, teachers can adapt to the chances of a specific student with minimum effort and choose one among the handfuls of obtainable learning tactics designed to satisfy the requirements of individual learners.

Special education is an adaptive sort of education supported different needs consistent with ability and is adopted for disabled students with different features of disabilities once they cannot suits the regular educational system (Florian 2008). Disabled students have educational needs which differ from those of other students, with both physical and mental disabilities causing difficulty in learning. In an attempt to assist disabled students reduce the restrictions brought by their disabilities; several researchers have specified that the support from technologies can enhance their learning engagement and their capabilities to accomplish learning tasks). Therefore,

within the technology- integrated context of education, teachers are encouraged to regulate their teaching approaches and use computer-assisted tools to help disabled students in their learning.

In the learning contexts of technology-assisted education, there are varieties of relevant empirical studies in several learning domains. Numerous researchers have found that the mixing of computer-assisted tools and software applications can support disabled students at different learning levels with the aim of enhancing their learning achievements. With the advancements of mobile and ubiquitous computing technologies, researchers have acknowledged the opportunities provided by these technologies to support disabled students in solving their special learning needs. In sum, the mixing of computer-assisted tools and software applications can enhance disabled students' basic life skills and supply them with knowledge and learning experiences in several learning domains.

On the opposite hand, researchers have indicated the importance of understanding the research trends and clarifying the challenges and therefore the need for education especially for education. Identifying the appropriateness and effectiveness of adopting computer systems and applications for various sorts of disabilities at different school ages can provide valuable information to spot the necessity for various sorts of education, which may successively help to enhance the teaching quality and therefore the students' learning performance. Therefore, it's important to look at learners' needs from multiple dimensions supported the experiments and findings of previous studies using technologies in education. Compared to the analysis studies of technology-enhanced learning, few studies are conducted to review the research associated with the utilization of technologies in education.

This study examines the present situation and development trends of applying Applications and technology in education from various aspects, including learners' age, the sort of technologies, and therefore the sort of disabilities, the training environments, and therefore the application domains. This study also added some new codes to increase our view of technology enhancing education, like learning strategies, research issues, and levels of disabilities, which weren't taken under consideration in previous review studies. Like many things in life, technology has changed the way we learn

languages beyond all recognition. Long gone are the old days of perusal textbooks and hulking bilingual dictionaries to find out a far off language.

1.1 LITERATURE REVIEW

Researchers have indicated that in technology-assisted teaching contexts, technologies, and various kinds of software applications have experienced rapid development in the past decade. However, when employing computer-assisted tools in education, the learning contexts require a great deal of support from schools and teachers. For instance, Albarran and Sandbank (2019) discussed the effectiveness of instructive feedback for children with disabilities.

Alzrayer and Banda (2017) further indicated that proper use of computer-assisted tools in special education could promote disabled students' engagement in learning activities and then enhance their confidence in learning. Nonetheless, in practice, there are difficulties in implementing technology- supported special education.

Billy Krakower and Sharon Lepage Plante gives an complete overview of assistive technologies which can provide teachers with the information needed to implement the tools in the special education classroom and also states that computerized learning strategies can be especially important for students with autism-spectrum disorders who may experience frustration when trying to communicate one-on-one with teachers and other adults.

Chhapparwal B.C states that a good method of teaching is based on multisensory approach, his Circular Adaptation approach not only children with disabilities but also help the teacher to assist children who have learning disabilities.

Another example is the study conducted by Luca Campigotto, who engaged special education students in a learning task in a school library. The students were asked to take photographs using an application on an iPhone to link the photographs with the relevant vocabulary; however, most of the students encountered difficulties when using the application.

Dr.S. Mercy Gnana Gandhi states that multimedia and internet bring audio,

visual, and animation effects in the English language classroom and also analyzes the use of technology to English language teaching in India.

For example, the study of *A Mind at a Time* by Mel Levine, states that students with dyslexia required a longer time to improve their reading, writing, and memory training and were less likely to have good learning outcomes in a conventional online learning environment.

Roger Pierangelo provides numerous effective strategies that will help teachers to meet a variety of students needs, he also addresses with a clear understanding of the student with learning disabilities and provides strategies to help a student access the general education curriculum.

Sara and Heartley (2019) investigated how computer-assisted instruction was conducted in special education; All of these studies provide evidence of the effectiveness of technology in special education. However, based on relevant studies on technology-supported special education, few studies have been conducted to investigate research trends of integrating computer-assisted tools and software applications into special education, in particular, by taking the multiple dimensions of the technology-based learning model.

CHAPTER II

2. HISTORY OF ENGLISH LANGUAGE TEACHING

Today, English is that the world's most generally studied foreign language. Five hundred years ago, Latin was the foremost dominant language to be studied because it had been the language of business, commerce and education within the western world. In the sixteenth century, however, French, Italian and English gain in importance as a result of political change in Europe and Latin gradually became displaced as a language of spoken and written communication. Latin became a dead language. It was

being begun to read within the books as classic language. Children began to enter within the 'grammar school' in sixteenth and eighteenth centuries to find out grammar rules of Latin. To learn Latin language became a "mental gymnastic". In the eighteenth century, when modern languages began to enter in the curriculum of the European countries, these languages were taught by the same methods as Latin language was taught. Grammatical rules were memorized. Written practices were done. The passages were translated from the second language to the primary language and the other way around. By the nineteenth century, this method was considered as a typical method of teaching language. The textbooks were divided into chapters. Each chapter contained a particular rule of grammar and rule was practices with tons of written exercises.

2.1 METHODS AND APPROACHES OF ENGLISH LANGUAGE TEACHING

According to Asher and James (1982), Methods are the mixture of techniques that are used and plasticized by the teachers within the classrooms so as to show their students and approaches are the philosophies of teachers about teaching which will be applied within the classrooms by using different techniques of teaching. For example, if a teacher has an approach that language is the communication and learning a language is in fact learning the meanings, functions and uses of language. So the techniques are going to be supported the communicative teaching and task based methods. They are clear about their attraction towards certain methods and also think that why have they repelled certain method. The knowledge of method is extremely necessary because their knowledge is base of teaching.

2.1.1 Grammar Translation Method

Grammar translation method was the foremost popular and widely used method for teaching between the ages of 1840 to 1940. But this method was first used for teaching and learning Latin language which wasn't the language of common use at that point. Latin was considered as a classic language. The learners were made ready to study the literature of Latin language through learning the grammatical rules of language and learning the vocabulary in order that learners may translate the language within the ir mother tongue and in the second language. Grammar translation method

was criticized intensively within the nineteenth century because it had been considered that this method cannot fulfill the stress of learning in nineteenth century. The grammar–translation method could also be a way of teaching foreign languages derived from the classical (sometimes called traditional) method of teaching Ancient Greek and Latin. In grammar–translation classes, students learn grammatical rules then apply those rules by translating sentences between the target language and thus the language. Advanced students could also be required to translate whole texts word-for-word. The method has two main goals: to enable students to read and translate literature written within the language, and to further students' general intellectual development. It originated from the practice of teaching Latin; within the early 16th century, students learned Latin for communication, but after the language died out it had been studied purely as an academic discipline. When teachers started teaching other foreign languages within the 19th century, they used an equivalent translation-based approach as had been used for teaching Latin. The method has been criticized for its shortcomings.

The grammar–translation method originated from the practice of teaching Latin. In the early 16th century, Latin was the foremost widely studied foreign language due to its prominence in government, academia and business. However, the utilization of Latin then dwindled and was gradually replaced by English, French and Italian. After the decline of Latin, the aim of learning it in schools changed. Previously, students had learned Latin for the aim of communication, but it came to be learned as a purely academic subject.

Throughout Europe within the 18th and therefore the 19th centuries, the education system was formed primarily around an idea called faculty psychology. The theory dictated that the body and mind were separate and therefore the mind consisted of three parts: the desire, emotion and intellect. It was believed that the intellect could eventually be sharpened enough to regulate the desire and emotions by learning Greek and Roman classical literature and arithmetic. Additionally, an adult with such an education was considered mentally prepared for the planet and its challenges.

At first, it was believed that teaching modern languages was not useful for the development of mental discipline and so they were left out of the curriculum. When

modern languages began to seem in class curricula within the 19th century, teachers taught them with an equivalent grammar–translation method as was used for classical Latin and Ancient Greek. Textbooks were therefore essentially copied for the fashionable language classroom. In the US, the essential foundations of the tactic were utilized in most high school and college foreign language classrooms. According to the Richards and Rodgers (2001), the principle characteristics of Grammar Translation Method are:

- In Grammar Translation Method, the goal of learning a second or foreign language is especially to be enabling to read the literature of that language and is to urge benefit from intellectual development that results from foreign and second language study.
- Grammar Translation Method enables to find out detailed grammatical rules of target language and enables to translate into and out of the target language.
- In Grammar Translation Method, reading and writing skills are focused while listening and speaking skills are totally ignored.
- In Grammar Translation Method, the memorization of grammatical rules of foreign language and of the vocabulary items is concentrated. Vocabulary items are limited to the text that they're taught.
- Vocabulary items are memorized with the assistance of their meanings within the language.
- In Grammar Translation Method, sentenced is that the basic unit of teaching and language practice. The learners are enabled to try to to detailed analysis of a sentence through this method. The learners are enabled to translate a sentence into and out of the target language.
- In Grammar Translation Method, accuracy is emphasized instead of fluency.
- The basic purpose of this method won't to be ready to pass the written examinations.
- In Grammar Translation Method, grammar is taught deductively i.e. by presenting and practicing the detailed grammatical rules of target language.

- Syllabuses of grammatical rules are followed during and are systematically put in to a sequence ranging from the straightforward rules to the complex rules.
- In Grammar Translation Method, students are directed and directions are given within the student's language in order that they'll easily understand the instructions.
- The students' language is employed to elucidate new items and to enable them to match two languages i.e. native language of the learners and foreign language.
- There are some major techniques that are adopted within the teaching of second or foreign language through Grammar Translation Method.

Translation of a Literary Passage : Students translate a reading passage into and out of the target language. In checking of the interpretation, the main target of the teacher is on vocabulary and grammatical structures. The translation could also be written or spoken or both. Students shouldn't translate idioms but must understand their meanings.

Reading comprehension questions: A passage for reading and understanding is given to the scholars and that they need to answer the questions given at the top of the passage within the target language. The questions are put into a sequence. The first group of questions is said with the knowledge drawn from the passage, second group of questions require students to form inferences supported their understanding of the passage. The third group of questions requires students to relate the passage with their own experiences.

Antonyms and synonyms: Students are given an inventory of words and a passage. The students have to find out the antonyms of those words in the passage. Similarly, the students can also be given a list of words and can be asked to find out the synonyms of the given words from the passage.

Deductive applications of rules: Grammar rules are presented before the scholars with the all possible information which will tend to the scholars concerning the grammatical rules. The rules are also explained with examples. Once

students understand a rule, they're asked to use it for a few different examples.

Fill in the blanks: The students are given a series of sentences with some missing words. The students need to fill within the blanks with some suitable grammar items such a preposition and verbs with different tenses.

Memorization: The students are given an inventory of vocabulary to memorize them with their meaning within the language. Students are also required to memorize the grammatical rules.

Use words in sentences: In order to see the understanding of the meaning and sue of vocabulary, the scholars are asked to use the list of typical words in their own sentences.

Composition: The teacher gives a subject to the scholars to write down that topic within the target language. The topic is predicated on some aspect of the reading passage of the lesson (Freeman, 1986).

Talking about the advantages in grammar translation method; "The structure of a foreign language is best learnt when compare and contrasted with that of the mother tongue. According to, the Grammar Translation Method is predicated on a system and is during a sequence because during this method all the grammatical rules are arranged into a sequence for the convenience of the students. This sequence starts from the straightforward rules and eventually results in the complex rules. When a book is written by an author on grammatical rules keeping in sight the sequence, he writes one lesson that's completely supported one rule of grammar. Each lesson is divided into certain rules and these rules dominate the lesson.

Larson (1986) narrated importance of Grammar Translation Method as "in Grammar Translation Method, students are made to find out new words. Therefore, this method helps in improving vocabulary. Reading and writing are the 2 primary skills that are developed most so on enable the scholars to read the

literature in target language. Grammar is taught deductively and it makes use of students' mother language.

Neilson (2003) stated that in Grammar Translation Method, oral skills i.e. speaking and listening skills are totally neglected while the entire attention is given to only reading and writing skills. Through this method, the scholars become ready to read the literature of the target language by translating it into their language but cannot communicate into the target language and even cannot understand the target language spoken by any speaker. In Grammar Translation Method, the authority of the classroom is completely within the hands of the teacher and teacher is at the centre of the classroom. The communication is simply from teachers to students not from student to teacher and not even from students to students. The students are considered empty minded which have needed to be crammed with all the possible vocabulary and grammatical structures which will be filled in their minds. The main disadvantage of the Grammar Translation Method is that it's almost impossible to translate all the phrases and sentences into the target language because the most focus is the translation of this method so such students who are taught through this method become fail to speak well within the target language (ibid). In the Grammar Translation Method, accuracy is emphasized instead of fluency and students continue thinking to accurate the grammatical rules which actually hinder their fluency. In Grammar Translation Method, the teacher abruptly interferes and stops the scholars wherever they create the mistakes in order that they become conscious while speaking and communicating within the target language and become unable to be fluent.

2.1.2 Direct Method

The direct method was the outcome of the reaction against the grammar translation method. It was supported the idea that the learners of foreign and second language should directly think in English. This method is against the interpretation of written and oral text and focuses on telling the meanings of the

words through action, demonstration or real objects. This method focuses on directly thinking, doing discussion and conversation in second language (Richards and Rodgers, 2001). Purwarno (2006) described the aims of the direct method. He described that direct method is an effort and energy to make a link between thought and expression and between experience and language. Direct method was criticized thanks to the subsequent reasons:

- Direct method is successful in private language schools because this method can be applied only in small classes where all the learners can get individual attention.
- In Direct method, the teachers extravagantly excel in keeping the mother tongue of the learners away from them.
- Direct method demands the learners to do oral communication in the second language and it also demands the pronunciation and accent to be just like the native speakers so there is need for the school to rent the native speakers which actually are often very expensive.

The success of the direct method depends on the teacher's skills and personality more than on the methodology (Richards and Rodgers, 1986).

2.1.3 Structural Approach

The structural approach mainly employs the techniques of the direct method but the reading and writing skills aren't wholly neglected. The structural approach is predicated on the sound principles of learning. The structural approach says that the arrangement of the words in such how on form an appropriate pattern which pattern may make the meanings of the language clear to us. Any language has its own structure and skeleton which provides this language an honest appearance. A structure is a pattern and a particular arrangement of words which to indicate grammatical meanings. It may be a word, a phrase or a sentence. Structural approach was criticized because it had been only suitable for lower grades. Continuous teaching of structures and their repetition make the atmosphere dull and

boring. It also neglected the reading and writing abilities and there was also a scarcity of skilled teachers.

2.1.4 Oral Approach

The oral approach may be a method during which children to use whatever hearing they get from their surroundings. They also take help from the context to know and use language. The target is to develop the talents within the individual in order that he can communicate and performance independently. This approach helps within the development of reading and writing skills (Richards and Rodgers, 2001). The oral approach was developed from 1930s to the 1960s by British applied linguistics like Harold Palmer and A.S. Hornsby. The main difference between oral approach and therefore the direct method was that the methods which were developed under this approach had theoretical principles about the choice, grading and presentation of the content and material. This sequencing of the content would lead to better learning with a good knowledge of vocabulary and grammatical patterns. In this approach all the points of language were to be presented in “situations” which led to the second name of the approach i.e. situational language teaching. Although, the teachers aren't conscious of this approach today but it had long lasting impact on learning. However, its specialize in oral practice, grammar and sentence patterns remains supported by the teachers.

2.1.5 Audio – Lingual Method

Audio-lingual method is also known as ‘Army Method’ because after the outbreak of World War II, the army soldiers decided to be proficient in the languages of their enemies. So a new learning method of foreign languages was discovered which is known as audio-lingual method. This method is predicated on a linguistic theory and behavioral psychology. The audio-lingual method was widely utilized in the 1950s and 1960s and therefore the emphasis wasn't on the understanding of the words rather on acquisition of structures and patterns in common everyday dialogues (Richards and Rodgers, 2001). The teaching of the oral skills with accurate pronunciation, grammar and therefore the ability to reply quickly and accurately is that the main objective of audio-lingual method. Reading and writing skills could also be taught but they're hooked in to the oral skills (Richard and Rodgers, 1986).

2.1.6 Total Physical Response

In Total Physical Response (TPR), the teacher gives the scholars instructions and therefore the students follow the instructions by using whole body responses. James J. Asher, a professor, of psychology at San Jose State University developed the tactic Total Physical Response in late 1960s to assist in learning second languages (Richards and Rodgers, 2001). According to Asher (1977), "TPR is predicated on the premise that the human brain features a biological program for acquiring any tongue on earth including the signing of the deaf". We can see this process if we observe the learning process of an infant. The communication between parents and therefore the child consists of both verbal and physical aspects. When the kid isn't ready to speak, at the time he/she is internalizing the language. This is the time when code breaking occurs. After this process the child becomes able to speak and reproduce language. In TPR, the teacher repeats the method within the class. Students answer the commands of the teacher which require physical movement. TPR is most useful for beginners. TPR is additionally used for teaching students with dyslexia or related learning disabilities.

2.1.7 Silent Way

Silent way is that the method of teaching which was proposed by Caleb Gattegno. This method is predicated on the view that the teachers should be silent within the classroom the maximum amount as possible but the teacher must encourage the scholars to talk and use the language. The foremost important aspect of this method is its elements that are used for teaching i.e. colored charts and colored rods (Richards and Rodgers, 2001). This method focuses on the learners to get on their own instead of they remember or memorize something. The learners are facilitated in learning by giving them some problem to unravel which involves the materials that are needed to be learnt (ibid).

2.1.8 Communicative Teaching

Communicative teaching was developed within the era of revolutions in British teaching traditions from late 1960s. Before communicative teaching, situational teaching was in practice in Britain for teaching. Communicative teaching was

actually developed within the opposition of audio-lingual method which focuses on drilling and memorization. Communicative teaching focuses on developing the power of communication in learners in real world situations. It focuses on meaning instead of accuracy (Richards and Rodgers, 2001).

2.1.9 Natural Approach

In 1977, Tracey Terrell proposed the natural approach of teaching. This approach was influenced by Stephen Krashen's theory of language acquisition. The natural approach focuses on communication because the major function of language. during this approach, language is taken into account because the vehicle or means of conveying a message and knowledge. The natural approach was actually supported the observation and understanding of the acquisition of the primary and therefore the second language in informal settings (Richards and Rodgers, 2001).

2.1.10 Task – Based Teaching

Task- based teaching is an approach that's supported the idea that tasks are the main unit of learning. This approach is predicated on the matter solving view that the learners should tend some tasks to be solved. These tasks are associated with the language structures that are required to be learnt. The learners interact and communicate with one another during solving these problems. In these ways, they learn the language (Richards and Rodgers, 2001).

2.2 HISTORY OF ENGLISH TEACHING IN INDIA

English may be a widely speech today. It's often been mentioned as 'global language', the interlanguage of the fashionable era and currently the language most frequently taught as a second language round the world. English in India is employed not just for communicating with the surface world, but also for inter-state and intrastate communication, due to the good ethnic and linguistic diversity found within our nation, English acts as an important 'link' language. With the knowledge Technology revolution and most software and operating systems being developed within the English, a replacement utility for written and speech within the English has emerged. English is claimed to be the world's most vital language having communicative and

educative value. English is employed everywhere the planet not out of any imposition but due to the belief that it's certain advantages. In terms- ELT in India, ELT in pre-colonial period, colonial period, post colonial period. Language which has been considered man's most remarkable achievement, is such a lot a neighborhood of our lives, just like the air we breathe, that fairly often we take it without any consideration and as often aren't conscious of its characteristic features. Language may be a system. English features a status of associate language, but actually it's the foremost important language of India.

After Hindi it's the foremost commonly speech in India and doubtless the foremost read and written communication in India. English in India is employed not just for communicating with the surface world, but also for inter-state and intrastate communication. English symbolizes in Indians' minds, better education, better culture and better intellect. Indians who know English often mingle it with Indian languages in their conversation. it's also usual among Indians to abruptly move to talk fluent English within the middle of their conversations. English also is the communicator among Indians who speak different languages. English is extremely important in some systems – legal, financial, educational and business in India.

2.3 ENGLISH IN INDIA

Officially English features a status of assistant language, but actually it's the foremost important language of India. After Hindi it's the foremost commonly speech in India and doubtless the foremost read and written communication in India. Indians who know English will always attempt to show that they know English. English symbolizes in Indians minds, better education, better culture and better intellect. Indians who know English often mingle it with Indian languages in their conversations. It is also usual among Indians to abruptly move to talk fluent English within the middle of their conversations. English also is the communicator among Indians who speak different language. English is extremely important in some systems – legal, financial, educational, business – in India. Until the start of 1990s, foreign movies in India weren't translated or dubbed in Indian languages, but were broadcast in English and were meant for English speakers only. The reason Indians give such

importance to English is said to the very fact that India was a British colony. When British started ruling India, they looked for Indian mediators who could help them to administer India. The British turned to high caste Indians to figure for them. Many high caste Indians, especially the Brahmans worked for them. The British policy was to make an Indian class who should think just like the British, or because it was said then in Britain “Indians in blood and colour but English in taste, in opinions and morals and intellect”. The British also established in India universities supported British models with emphasis on English. These Indians also got their education in British universities. The English Christian missionaries came to India from 1813 and that they also built schools at primary level for Indians during which the language of instruction was local language. Later on the missionaries built high schools with English because the language of instruction which obliged the Indians who wanted to review to possess an honest knowledge of English. The British rulers began building their universities in India from 1857. English became the first language in Indian education. The ‘modern’ leaders of that era in India also supported English and claimed it to be the most key towards success. Indians who knew good English were seen because the new elite of India. Many new schools were established during which the language of instruction was English. According to British laws the language of instruction at university level was English and thus schools that emphasized English were preferred by ambitious Indians. Even after India’s independence, English remained the main language of India. Officially it had been given a standing of an assistant language and was alleged to terminate officially after 15 years of India’s independence, but it still remains the important language of India.

2.4 PRE-COLONIAL PERIOD

The English language came to India within the 17th century with the Malay Archipelago Company. It was formed to conduct trade with India and other countries within the east. Initially the Britisher’s tried to find out Indian languages to speak with Indians. They started special colleges for this purpose. They also took the help of the translators. But when their political powers increased, they created British Indian provinces like Bengal, Madras and Bombay. Some missionary institutions taught English to Indians. The East India Company took the responsibility of the educations of the Indians. The Indians were also realizing the importance of English language. They

realized that English was the language required for a secure future in a government job, so why was English not taught in the secondary school? Private schools offering this service were already doing good business, particularly in Calcutta. The state was set for the primary 'big moment' within the imperial history of English teaching. Meanwhile some movements were started by Raja Ram Mohan Roy to introduce western scientific education through English. He wanted to exchange traditional Sanskrit and Persian teaching. To take a choice on the difficulty, a committee was formed. Lord Macaulay was the chairman of this committee. He advocated English because the medium of instruction within the place of Sanskrit and Persian. Lord Macaulay wanted to make the people Indian in blood and color but English in taste and opinion. He thought the members of this class would spread their knowledge through English. Macaulay's purposes were:

- To create the dominance of British culture over the Indians and to have the control over the minds of the Indian people through English.
- To train Indians and make them fit for the employment. The British Government gave preference in jobs to the Indians who had the knowledge of English.
- A number of Indian students found poetry, drama and other writings difficult to get their degrees. Meanwhile many new colleges and universities were formed. The system of English education founded on English literature continued till the independence.

2.5 COLONIAL PERIOD

India got the independence and therefore the Indian government had to make a decision its policy towards English. They decided to make Hindi the official language. Regional languages got the status of national languages. Certain states insisted to form English the associate official language. Universities and schools were increasing rapidly in India. Some of the people from the neglected society also came forward to find out English. English wasn't limited to a couple of elite schools and colleges. But there have been complains about the standards of English. The government appointed many

commissions to enhance the quality of English in schools and colleges. All these would cut us faraway from the living stream of our growing knowledge. The education Commission emphasized an

equivalent during a similar tone: Commissions reaffirmed the importance of English. For instance, University Education Commission says: English, however, must still be studied. It is a language which is rich in literature – humanistic, scientific and technical. If under sentimental urges we should always hand over English, this position of India within the international sphere is partly thanks to the command that educated Indians have acquired over English. Many eminent educationists and scientists have therefore, expressed the opinion that under no circumstances should we sacrifice the various advantages that we've gained by the study of English. In 1958 The Central Institute of English was started in Hyderabad. Regional institutes were established in Bangalore and Chandigarh. But nobody tried to vary the literature based system of English. English was studied mainly for education and administration. But due to the revolutionary developments in science, technology, travel, trade, communications and entertainment, English got a replacement role because the international language of communication. Nowadays it is necessary to learn all the four skills of listening, speaking, reading and writing English. English teaching has remained unchanged for nearly 150 years, new developments are happening worldwide within the methods of teaching and learning English. These developments have affected English teaching in India also. Previously, English was taught from fifth standard within the non-English medium schools of Maharashtra. Now it's taught from the primary standard even within the non-English medium schools. In the past the syllabus was literature based but now it's skill-based. Earlier the evaluation system centred on the written skill only, from the year 2006-07 the oral test is introduced within the secondary and better secondary schools. People are aware of the importance of English. They are interested in learning the spoken English. As a result, various courses are developed for teaching spoken English. The use of Language Laboratory and Computer Assisted learning (CALL) has created new changes within the teaching of English. The audio cassettes and CDs are getting used on an outsized scale to find out the speech. Various software of English teaching are developed and employed by a growing number of individuals. There are many private institutions that run the courses of spoken English. Especially in big cities the language trainers are helping the learners to accumulate the specified proficiency over the communicative skills generally and therefore the spoken skills especially. Now Television channels also are working towards improving spoken English.

2.6 ENGLISH LANGUAGE TEACHING IN POST COLONIAL PERIOD

Teaching English as a tool for communicating the story of Jesus features a long history. Missionaries have vehemently differed from each other about its usefulness as a tool for this purpose. Even as English contains excellent Christian literature, it also is home for secular literature. Secular Humanism found its way in many lands through the learning of English language and literature. Its “ennobling” characteristic as a tool and purveyor of culture, the scientific knowledge it opens up for those who learn it, the ease with which one could transact business using it, all have more or less overshadowed the deep Christian foundation upon which the language, literature and culture is made . English remains pregnant with Christian metaphors, idioms and set phrases, which can't be wholly understood and used without a grasp of the underlying Christian message. Perhaps due to the rationale latter , most nations have embarked upon a process of textbook contextualization when it involves teaching English. The original pieces of writing by the native speakers of English are sought to get replaced by the writings of the nationals who are masters of English prose and poetry. In their creative writing, metaphors, idioms, and set phrases from the national languages, which imply local culture and religion, are more freely used. Translations from the local tales are more frequently substituted for tales from Europe. In addition, government-inspired documents on ideology become a part of the textbook. Nations (and individuals) want to appropriate English as a language minus the culture and religion it represents and communicates. Even as the goals of English teaching and learning are being continually redefined, you ought to remember that English wouldn't be taught solely by the native speakers of English in many nations. Some countries like India, Pakistan, Nepal, Bangladesh and a number of other African nations have provided for the teaching of English mainly through their nationals. Some countries like Japan and China open their doors to more number of native speakers of English to teach English.

2.7 THE PRESENT STATE

Twentieth century witnessed great advancements in science and technology and this enabled many new ways of sharing information and doing business. India's international commercial activities led to the necessity for acquiring proficiency in English as a world language. Now, English wasn't just the language of the

administrators and policy makers but also became the language of the business and professional class. In India, the English speaking population is only about 3- 4%, but with India's massive population, India is among the top three countries in the world with the highest number of English speakers. In terms of numbers of English speakers, the Indian subcontinent ranks third in the world, after the USA and UK. Most English speakers in India are second language speakers, in 1971, it had been estimated that the speed of bilingualism in India was 13% and 99% of English speakers are second-language. It is this small segment of Indian population that heads India's economic, industrial, professional, political, and social progress. Most interactions within the above spheres of life happen in English.

In the linguistically plural settings of India, English often acts because the link - language among people of various dialect. For many educated Indians English is virtually the primary language. Thus within the present context English is playing an important role in bringing together people from different regional languages for a better exchange of social, educational and administrative network of India . It provides a linguistic tool for the executive cohesiveness of a rustic . English is employed in both public and private domains and its functions "extend far beyond those normally related to an outdoor language, including the instrumental, the regulative, the interpersonal and the innovative, self-expressive function". As pointed out before, the role of English is not replaceable; it overlaps with local languages in certain domains.

2.8 ENGLISH IN EDUCATION

English is the state language of two states in Eastern India, Meghalaya and Nagaland. It is the most medium of instruction at the post graduate level, and it's taught as a second language at every stage of education altogether states of India. In India, as in other linguistically and culturally pluralistic societies, the position of English is decided by various political, cultural and social considerations sees primarily three questions which continue to be discussed. The first question concerns the position of English in early and in higher education. The second question cares with the roles of the regional language Hindi and English. The third question deals with the model of English presented to Indian learners, and the way that presentations are often made uniformly and effectively. The government of India has primarily been concerned with

the primary two questions, which are directly associated with language planning at both the national and state levels. There are, as yet, no acceptable answers to any of these questions. The three language formula was developed for the tutorial load to be fairer, to market national integration, and, to supply wider language choice within the school curriculum consistent with the formula; people from non-Hindi areas study their regional language Hindi and English and another language. Although the formula sounds fine in theory, practically it's proved to be a failure in India as an entire, since it's not been followed in practice. Hindi states didn't enforce the curriculum, and therefore the anti-Hindi DMK government in Madras removed all teaching of Hindi from schools in Tamilnadu. Thus in India, there's an excellent number of sociolinguistic pressures influencing the event of language education, has stated that the language policy of the school system is both a result of the pressures and a source of pressure itself. He, too, claims education to be the strongest weapon for enforcing language policy, listening the subsequent pressures to possess an impact on language planning during a society, family, religion, ethnicity, political pressures, cultural pressures, economic pressures, legal pressures (lack of the official language can often become the idea for discrimination), military pressure (desirability to use one common language). Effective learning takes place only the learner is in a position to speak fluently both in writing and speaking and is in a position to use English for library purposes.

2.9 NECESSITY FOR SYLLABUS DEVELOPMENT

A planned approach to the teaching-learning process can go an extended way in making a course effective and relevant. However, because it is seen as something very complicated, many an times the content of the text books available for the course take the place of the syllabus. There are very strong grounds to support the necessity for a scientific syllabus development process, the foremost important of them are:

First, right from the onset of the course the teacher understands the last word objective of the course as results of the planned process. This gives a chance to the teacher to interrelate and integrate all the weather. This successively ensures better chances for the syllabus meeting its learning objectives. Secondly, a planned approach enables better selection of teaching materials and aids. The class delivery is

better planned and oriented towards the end result. Finally, this syllabus development process results in improvement of language education. The teacher plans, structures, selects, organizes the teaching content in accordance with the learning objectives. Both the learner and the teacher are well aware of the outcome desired and both work in coordination to achieve the common goal. The syllabus theory has not found wide application in ELT practice yet and has often been ignored by applied linguists. However, the appliance of this theory might be very beneficial for the entire ELT process improvement.

Therefore, English has been considered as a serious foreign language in India since independence. As the world is getting globalized, there has also been a sense of English as a global language, not just a language of the USA or the UK.

Although English was considered as a serious foreign language in India, Indians in several contexts are more likely to possess witnessed or experienced benefits of getting more competence than before. These changes within the functions and benefits have caused change within the status of English from that of a far off language to a worldwide language. In the of field English teaching is growing day by day in India due to good and dedicated researchers have contributed something to English teaching and moreover number of linguists have made footprint within the field of applied linguistics.

CHAPTER III

3. TECHNOLOGY ENHANCED LANGUAGE LEARNING (TELL)

(TELL) or Technology-enhanced learning deals with the impact of technology on teaching and learning a second language also called the L2. Technology-enhanced learning refers to the utilization of the pc as a technological innovation to display multimedia as a way of complementing a pedagogics language teacher. What's important to notice is that TELL isn't a pedagogics but rather an approach which will be used alongside a pedagogics to assist teach. TELL is extremely supportive of Computer Mediated Communication (CMC). CMC has been researched and supported as being very useful to helping students speak and write during a foreign language which is vital to teaching process using TELL. "The process is often described as effectively bridging the gap between written and oral expression for the linguistically limited student whose oral skills aren't capable leave full expression of ideas within the target language. By slowing down the method of communication and allowing the scholars to reflect and compose a message (similar to an "utterance"), electronic interaction within the classroom encourages student use of the target language?" Technology-enhanced learning uses technology, including hardware, software, and therefore the internet to reinforce the teaching and learning of languages by,

- Using a hand-held electronic dictionary to look up a word in class
- Chatting with a friend on Instant Messenger using a little English
- Reading news website
- Creating a video and posting it on YouTube
- Participating in an online discussion board
- Listening pop song and reading the lyrics online
- Doing a computer-based language exercise from the CD that comes with a textbook

- Searching for a word in a corpus to see how it's used.
- Playing World of War craft in English
- Texting a classmate in English

TELL conceptualized consistent with activity (fill-in-the-blank, create a video, chat with a classmate), skills (reading, writing, listening, speaking, grammar), location (blended, distance, online) and technology (computer, Internet, chat, blog, wiki, gaming, video)

3.1 APPROACH AND DESIGN

Technology is theoretically neutral, but a TELL activity: reflects a theory of teaching, learning, and foreign language learning of the designer and/or instructor and reflects a theory of technology as:

- Drillmaster: *behaviorist*
- Tutor: *cognitive*
- Tool: *constructivist*
- Mediator: *socio-cultural*
- Part of an ecology: *socio-cognitive*

A TELL activity has goals and objectives like all other learning activity. It are often integral or peripheral to the lesson or curriculum. It is an integrate skills or treat them separately.

3.2 PREPARATION AND IMPLEMENTATION

A TELL activity requires instructor technological literacy, requires (but can also develop) student technological literacy, requires class access to technology, sometimes requires technical support. During a TELL activity, the trainer could also be monitoring, guiding, facilitating, assisting, and evaluating, the scholars could also be working individually, in pairs, or in groups, the scholars are clicking, dragging, and scrolling, but also listening, speaking, reading, and writing.

3.3 ASSESSMENT AND EVALUATION

A TELL activity has processes, products, and actions which will be assessed. These should be assessed during a way that matches the activity objectives and approach. Its activity should be evaluated during and after implementation. It can be altered during implementation based on evaluation to meet student needs. It reflects principles of language learning.

3.4 ADVANTAGES OF TELL

Using TELL provides tons more flexibility and caters to more learning sorts of the language learners compared to traditional sorts of teaching. It are often used alongside textbooks for a way more thorough learning experience. TELL turns the classroom into a student centered environment.

Students can:

- Select order in which material is presented to them.
- Control the material presented to them.
- Control the pace of progress.

TELL improves motivation and develops better attitudes in students towards learning. Learning isn't confined to the world within the classroom environment; its enlarged Students can study language reception and practice language in school.

3.5 MAIN TYPES OF MEDIA IN TELL

1. Sound (audio)

- Radio broadcasts
- Recorded playback of speeches
- Recorded storytelling

2. Films (video + audio)

- Short films
- Interviews
- Full length full feature movies

3. Images/Graphics

- Charts
- Paintings
- Photos

4. Texts

- Essays
- Journals
- Articles
- Email
- Chatting
- Books

3.6 STRATEGIES FOR (TELL) IN LANGUAGE CLASSES

The tremendous evolution of technology and learning is opening new portals to represent knowledge practices, and new global communities of learning. Technology is not any longer a fringe course enhancement, of interest to only enthusiastic 'technophile' teachers, learners and managers, but rather, it's an importance for everybody concerned in teaching. The area of technology- enhanced learning is very controversial; there are numerous ways of watching technology in teaching. This paper explores opportunities that English teachers have created to assist students meet English literacy goals in technology enhanced learning (TELL) classroom environments.

It is rare to seek out a language class that doesn't use some sort of technology. In recent years, technology has been used to both assist and enhance language learning. Teachers have incorporated various sorts of technology to support their teaching, engage students within the learning process, provide authentic samples of the target culture, and connect their classrooms. Further, some technology tools enable teachers to differentiate instruction and adapt classroom activities and homework assignments,

thus enhancing the learning experience. In addition, technology continues to grow in importance as a tool to help teachers of foreign languages in facilitating and mediating learning for his or her students. Technology can play a crucial role in supporting and enhancing learning, the effectiveness of any technological tool depends on the knowledge and expertise of the qualified language teacher who manages and facilitates the language learning environment.

3.7 THE USE OF MULTIMEDIA IN ELT

Multimedia pedagogics has been utilized in college English teaching wider and wider. It has contributed tons to higher teaching quality. . Chalk and Talk teaching method is not enough to teach English effectively. We should change our teaching ideas and recognize its impersonal attribute together quite pedagogics. Thus we will utilize modern education technology reasonably to satisfy the target of school English teaching. Multimedia is that the exciting combination of hardware and software that permits you to integrate video, animation, audio, graphics, and test resources to develop effective presentations on a reasonable personal computer. Because of the powerful functions of the pc , multimedia pedagogics has many advantages like modularization, intelligence and networking which can be very helpful to school pedagogics . The interaction and intelligence of the multimedia courseware become good medicine for mute English students. With the powerful functions of the multimedia computers, students can talk with the virtual characters set by the pc. At an equivalent time, students can correct their own mistakes consistent with the judge of the computers, which is useful to enhance their ability of communication.

The time when computers have become popular is not long, so the college English teachers haven't used them for a long time. Many young teachers can use them by training or self-study. They are lecturers or bachelors and that they have very short teaching experiences. All the above restrict the multimedia pedagogics from becoming popular in college English teaching. Teachers are often more active within the teaching and perform effective quality education. Otherwise the merchandise of our education—the students, will become incompetent with high scores.

3.8 DISADVANTAGES IN MULTIMEDIA TEACHING

Constructivist learning theory thinks that learners can't get real knowledge by being taught, but by constructing meaning under a particular social cultural background with others' help. Of course, necessary study material is needed. Under constructive study environment, teaching design should include not only the teaching target analysis but also creating a particular scene suitable for learners to review. We can say that multimedia teaching method is brought to bear in college English teaching and become a good tool of creating such a study scene. The modernization of teaching media isn't adequate to teaching optimization. The determinant of teaching optimization doesn't believe using whichever media but the education conception. An educationist said: "If an educator uses undeveloped teaching idea and methods albeit he uses modern teaching media, we will say that the scholars are infused by teacher and computer together rather than teacher." regardless of how powerful the fashionable education technology is, it's only a sort of technology, and it only provides a sort of possibility. It isn't catholicon for all the diseases and that we can't depend upon it excessively, otherwise we'll lose go-ahead's. We should scan each role of teacher and students in school again. Students are the main body and teachers are mentors. The reason why an honest teacher teaches well is that he can inspire the students' strong study desire and arouse their study interest. Even though this is often still the teaching of an educator, it's different essentially. The essential difference is that an honest teacher has syncretized his teaching into the students' study.

So we will draw a conclusion that the change of a teacher's idea is way more important than a sort of pedagogics.

With the recognition of computers and therefore the continuous development of English teaching software, multimedia teaching mode supported network circumstance will definitely become the most pedagogics of school English teaching. The former pedagogics depends on a book, a bit of chalk and a tape machine, and therefore the teacher's main teaching aim in school is to impart language knowledge. Nowadays, English teaching supported network circumstance brings the advantage of network into full play, and its' main aim is to impart language knowledge, study methods and application skills. So the students' interest of self-study English are going to be strengthened, their ability of speaking and taking note of English is going to be also heightened.

Multimedia teaching method belongs to computer-aided instruction in substance, and we can heighten efficiency substantially, which is a kind of trend. We should make best use of its advantages and bypass its disadvantages. Of course it can't replace all other teaching methods and that we can apply several methods together in one class. Only under the background of quality education can we use advanced educational theory and that we can fulfill the target of school English teaching by utilizing modern education technology reasonably.

CHAPTER IV

4.1 TECHNOLOGY FACILITATING LEARNING AMONG DIFFERENTLY-ABLED STUDENTS

The world report on disability affirms that over one billion people within the world accept some disabilities and there are about 150 million school-aged children with disabilities. Many of those children are excluded from educational opportunities and don't complete primary education. At the same line, recent UNESCO Global report (UNESCO Global Report, 2013) indicates that people with disabilities face a wide range of barriers, including access to information, education and a lack of job opportunities. However Information and Communication Technologies (ICT) can be a powerful tool in supporting education and inclusion for persons with disabilities. Technological development can enable people with disabilities to enhance their quality of life (Arrigo, 2005). The successful application of such technologies can make classrooms more inclusive, physical environments more accessible, teaching and learning content and techniques more in tune with learners' needs (UNESCO Global Report, 2013). In fact, the continual progress of ICT raised the necessity to maneuver toward improving the training quality applied in education and training systems by addressing new perspectives and opportunities. Technology emerges as the answer to fulfill that need and vouches to attend the learning needs of the students in a personalized and inclusive way. Therefore, developing accessible online educational environments appears as a principal solution to deal with this issue and to get rid of the barriers that folks with disabilities may meet once they access these learning technologies. An appropriate technology has got to provide people with disabilities with adaptive and privatized learning experiences that are tailored to their particular educational needs and personal characteristics. It should also improve their satisfaction, learning speed and learning effectiveness. One of the foremost amazing developments I've seen in education over the past ten years is that the way that technology has created a revolution in possibilities for disabled learners. For years, differently-abled students have struggled with their assignments or been excluding of various classes or subjects because schools had accessibility or instructional problems. The result has been that disabled students have long been subject to inadequate and unequal educational opportunities.

But the rapid development and application of computer-based technology, however, has created a transformation in available options for disabled students, ending the isolation and limited opportunities disabled students have long faced. Computer programs are designed to form it easier for disabled students to access material, communicate their ideas and work, and participate in educational experiences. For example, while Braille reading and writing techniques have helped blind or visually-impaired students continue their education since the nineteenth century, new assistive computer technologies that include mobility, hearing, and visual aids make Braille, as revolutionary because it was, pale as compared.

The advent of online learning especially has created greater accessibility for the various students for whom traditional college courses and college campuses previously presented obstacles to easy accessibility. As Martin Kooper at the United Kingdom's Open University states, "virtually anyone, regardless of any disability, is often enabled to interact effectively with a computer." Essentially, new technologies allow students to require advantage of the many of an equivalent opportunity for fulfillment as other students—turning yesterday's disabled students into today's enabled students!

4.1.1 People with Disabilities

Disabilities are often grouped consistent with the sort of impairment; generally there are four groups:

- Mobility impairments (restricted movement or control of arms, hands and fingers): It refers to physical disabilities that affect the ability to move, to manipulate objects, and to interact with the physical world.
- Visual impairments (blindness, partial sight and color blindness): It includes the range from low vision to full blindness, where the user cannot use the visual display in the least. Although people with visual impairments have the best problem with information displayed on the screen (especially graphics and pictorial information), the utilization of a pointing device, which needs eye-hand coordination (such a mouse), can also pose a problem for them.
- Hearing impairments (deafness and hearing loss): It has difficulties detecting

sounds or distinguishing auditory information from the background noise. Deaf individuals cannot receive any auditory information at all. Many of them communicate through the signing that differs significantly from the speech.

- Cognitive impairments (including cognitive, language and learning disabilities like attention deficit disorder, dyslexia, dementia, etc.): There are a good range of cognitive impairments, including impairments of thinking, memory, language, learning and perception.

4.2 THE USE OF TECHNOLOGY IN SPECIAL EDUCATION

In the times, we're witnessing the gradual erasure of borders. This process is said not only to business or politics. Nowadays, almost a person despite their citizenship or physical state can get medical or educational services all round the world. To regulate such relationships between an individual and international organizations, there are dozens of specialized commissions creating laws and standards.

The educational standards claim that students with disabilities should be provided with opportunities to realize their potential. They should participate in education and training on an equivalent basis as students without disabilities which they're not subject to discrimination. Due to the progress in the IT industry, digital technologies are easily accessible and widespread which allows using them for providing students with new opportunities.

Here is how technology can simplify the tutorial process for people with disabilities.

4.3 HOW MODERN TECHNOLOGY HELPS STUDENTS WITH SPECIAL NEEDS

According to the National Center for Education Statistics, in 2015–2016, the number of students served under the Individuals with Disabilities Education Act (IDEA) in the US was 6.7 million. This number is adequate to 13% of all public school students. While the percentage of such students stays pretty much the same during the last years, the total number of them has increased by 0.3 million since 2011-2012. The

percentage distribution of various disabilities types is presented within the National Center for Education Statistics website. These numbers tell us that there can't be a single technological solution that would suit the needs of all students with special needs. Due to the high diversity of sorts of disabilities, the simplest possible outcome are often guaranteed by the utilization of custom-made solutions designed consistent with the wants of a particular group of students. Special technology allows increasing the independence of a specific student freeing him from the constant need for direct teacher involvement. As a result, a student can choose the speed of learning that's convenient for him which results in more personalized learning. When a student doesn't inhibit the training process for the entire group, it allows reducing the anxiety level which plays a big role in education also. Implementation of technologies in education allows simplifying the communication and improves the tutorial skills of scholars with disabilities.

4.3.1 *How Technology Help*

The central purpose of technology in education is to enable students to find out during a way that accommodates their individual learning styles and limitations. Equally important is helping them experience:

- Greater independence
- Less anxiety
- Improved connection with their classmates
- Natural, more comfortable and effective communication
- Increased academic performance

4.4 WHAT DISABILITIES MIGHT BE PRESENT IN THE CLASSROOM?

It is important to realize that there are many different kinds of disabilities, and that new technologies have been developed to assist those who possess one or more of them. The most common disabilities, according to Cuesta College, fall under these categories:

- *Physical:* Students with physical disabilities may require the use of braces, a cane or a wheelchair, may use prosthetic limbs, or may be dealing with muscular dystrophy, Lou Gehrig's disease, multiple sclerosis, or many other conditions, all of which can present accessibility challenges.
- *Sensory:* Sensory disabilities include visual impairment and blindness, deafness and hard-of-hearing conditions can prevent students from utilizing traditional classroom materials and tools.
- *Cognitive:* Students with cognitive disabilities can be all over the map in terms of intelligence, but may suffer from difficulties with memory, self-expression, information processing, and other learning disabilities that prevent them from performing their academic tasks in the same manner as other students.
- *Psychiatric:* These disabilities include a broad spectrum of challenges, from social phobias to bipolar or other personality disorders that make it difficult for them to maintain consistency in their academic work or personal life.
- *Health-related:* Students suffering from chronic conditions such as diabetes or epilepsy, or other diseases such as cancer often experience difficulty attending class regularly.

While each condition is different, and some students deal with more than one, all students with disabilities face numerous challenges in the traditional classroom environment. These challenges can include being unable to travel quickly from building to building for different classes on a college campus due to a physical disability, or difficulty using the same learning formats as other students.

There are many ways of how technology can help students with special needs. For example, some kinds of disabilities don't allow students to use handwritten text that is an integral part of "traditional" education. Using technical tools intended for human speech recognition and synthesizing, you can avoid the necessity to use paper and pen during the lessons. Such technology would be also helpful for students with disorders that don't allow to process visual information correctly. The adaptive computing technology allows using digital devices to bypass challenging tasks. Screen reader applications such as JAWS along with specially designed Braille keyboards allow

visually challenged students to use the computer. Augmentative communication systems help students with speech problems to overcome the communication barrier. Such systems use picture charts, books, and specialized computers providing functions of word-prediction for more effective communication.

Before applying for services of a company that develops technologies for special education, consider the following advice:

- Pay attention to the cost of a given solution and its potential effect on the learning process.
- Prefer a technology that is not difficult to master.
- Make sure that the application you're going to choose is reliable and will naturally integrate into the educational process.
- Focus on user-friendly and intuitive solutions.
- Possibility to implement custom functionality that meets your requirements or customize the existing solution.

4. 5 ROLE OF TEACHERS

4.5.1 *Equality in Classroom*

Usually children with special needs are more likely to be bullied compared to other students within the class. Set common rules for the whole class and confirm that the differently abled student also follows the principles and has equal rights in classroom. Do not consider the child different from others just because of his physical disability. Never criticize the student for his disability. Even if students with special needs don't always have access to an equivalent learning tool as their classmates, never allow them to feel inferior to others within the classroom.

4.5.2 *Communicate Frequently with the Parents of Differently Abled Children*

Communicating with parents of differently abled children is necessary because some parents think that no one values their child because of their challenges. First, skills the parent prefers to speak and make them feel comfortable together with your

polite conversation. There also are some parents who feel embarrassed about having a toddler with special needs, during this case it's your responsibility to form them realize that having special needs isn't the kid's mistake and as parents they ought to support the child. By being in contact with the parents regularly, you can not only share the concerns but also get parents' support in helping their child in your ways.

Know about the disability of your student.

You can contact the oldsters of the scholar or ask his previous teachers and know more about the incapacity of the scholar. When you know more about the incapacity, about the kid, his routine and the way he deals together with his disability, you'll help the scholar to a greater extent. You can use new educational tools useful to the scholars with special needs.

4.5.3 Research and know more about the strengths and weaknesses of differently abled students.

Know about the strengths and weaknesses of the differently abled children in your classroom. Know during which areas they excel and where they're lagging. Encourage them to use their strengths to enhance themselves and help them change their weaknesses to strengths. Do not be overly polite to them because differently abled children misunderstand your politeness for pity and no-one likes to pity as if they were lacking something. Differently abled children don't view their disability as a scarcity and neither do you have to.

4.5.4 Be involved in student activities and monitor their independent activities

Assign individual activities to the students in your classroom and monitor the activities of all students, so that the specially abled children know that they are being treated equally in their classroom. Always be there to assist them with their activities. Strictly prohibit criticism of any form from any student in your classroom. Make sure that students do their activities independently. This helps the specially abled students boost their confidence and learn to try to things independently.

4.5.5 Keep your instructions simple and declarative

When you have students who are audibly impaired in your classroom, it's important that you simply keep your instructions clear and understandable. Do not use complex language that confuses differently abled children. Keep it in mind and use simple and declarative instructions in your classroom.

4.5.6 Encourage the differently abled students to contact you for any help required

At times, the sole support differently abled children need is moral support. They just need someone to share their concerns with. Let them know that they can contact you for any help required. Make them feel free to talk to you about their problems. This helps you recognize more about them and this successively helps you to think from a special perspective. When you start seeing things from their perspective you'll help your differently abled students more effectively.

4.5.7 *Make lesson plans that encourage more student involvement*

Usually, differently abled children don't participate much in classroom or cultural activities. The most common reason for this is often that they experience complex, so to urge them out of this make a lesson plan that encourages every student to participate in activities. When they participate frequently in classroom activities with other students in their classroom, it gives them confidence to face people in their daily lives. Special schools cater to many advanced teaching methods for differently abled children. The primary and foremost a neighborhood of this pedagogics is recognizing the type of disabilities in children. After realizing the difficulties only the teacher is able to employ the specialized techniques of teaching and for this she must complete a world diploma in special needs education from an academic institute. These institutes provide many courses for the aspiring teachers aimed toward educating special children in schools. at the present training organizations like Institute of International Teachers Training offer many courses to guide differently abled children. These children face many difficulties in leading their lives but with proper guidance, they go to be able to defeat them and live their lives happily. They're going to be able to work, learn and grow like non-disabled people.

By identifying student's needs the teachers will start educating them about

advanced procedures. a bit like a non-disabled child, a toddler with special needs has hopes and dreams to pursue a career. Altogether parts of the earth, initiatives are being taken for these children so as that they're going to achieve their dreams. The teaching methods thus include lecture the parents of the kids frequently. By that way, teachers are getting to be able to know the house environment of the kids during which they stay. Teachers also will know the influence and impact of the community. The methods taught during this course will help the teachers to teach in real classrooms which can contain groups of special children.

Special schools throughout the planet include equivalent topics of education. But the approaches to education are different in every institute. Therefore it's best for a candidate to hitch the diploma course from an institute which can provide international level courses and globally accepted certificates. Disabilities in children are often of varying degrees. Teachers will learn the characteristics of the disabilities and the way they affect the youngsters. There are often several sorts of physical disabilities and a few are even psychological. The course also will teach the scholars to teach children who have mental impairments. The program will help the teachers to use specialized techniques to accelerate the training process. Teachers will employ the methodologies to show the youngsters about words, grammar, spellings and lots of other topics aside from reading or studying. The classroom environment will such there'll be a bonding with one another and teachers will help the youngsters to develop the bonding. Moreover, by developing a bonding with one another, teachers are going to be ready to study the psychology of the scholars, their behavioral habits. The teachers will design many school activities to teach the youngsters. The teachers will involve non-disabled children too in order that both of them can form an honest bonding. In these activities, the educators also will invite the oldsters of the disabled children.

In a special school, the teachers will get to use the resources effectively. Candidates will learn the right allocation of resources by taking over this course. They're going to ask the youngsters to know what they have and in what quantity they have the materials. Hence an aspiring education needs teacher must join a world diploma in special needs education course to find out the methods in details. There are many teaching methods during a special school. But, before that, the educators will get

to keep the list of the resources totally updated. The teachers will discuss the allocation of the resources with the principals during a special school. The needs of the youngsters during a school are varied and teachers also will keep a track of them.

4.5.8 Understanding special needs

The teachers will understand the special needs of youngsters to not only educate them but also to know them and what they need to try to do in their lives. This understanding is totally supported the various studies and data that are gathered by educationists. After the gathering of the info teachers will send the reports of the reach the principals. the gathering of those techniques are often known by joining a world diploma in special needs education course from a tutorial organization.

4.5.9 Developing Notes

The educators within the learning process will take the assistance of notes to arrange the behavioral patterns of youngsters. By noting down the topics point to point the teachers can organize what he or she has experienced. At repeatedly the educators will work along side others on special cases of disability.

4.5.10 Observing children in the learning process

In the learning, process observation is highly important. With the assistance of the observations, one is going to be ready to analyze the training process for every child and the way to enhance them. The teachers will respond to the needs of the children at all times. There also are differing types of problems that disabled children can face. The educators if necessary will modify the classroom materials. Teaching special children needs patience and resilience. Today the institutes dedicated to teachers training develop study materials with in-depth research and analysis. At present, the training institutes have formulated the above-mentioned methods of providing special look after which reason the scholars must pursue the international diploma in special needs education course. This course also helps the aspiring educators to urge employed in good schools round the world where they will apply the specialized techniques that are taught within the course.

4.6 CHARACTERISTICS OF GIFTED CHILDREN

Physical Characteristics:

- Greater birth weight
- Early walk and talk,
- Early puberty,
- Superior motor ability, etc

Intellectual Characteristics:

- High IQ,
- Precocious,
- Varied interests,
- Higher scholastic performance,
- Rich cognitive processes of abstract thinking, reasoning, generalizing, critical & reflective thinking and creativity.

Personality Characteristics:

- Ambitious,
- Higher levels of motivation and enthusiasm,
- Impulsive,
- Confident.

Identification of the Gifted:

- Parents, teachers and social workers can help in identifying in identifying gifted children at a very early date. Careful observation of the child in different setting and for considerable amount of time has to be worked out for early detection of giftedness.
- General intelligence tests, creativity test, word association test, Achievement tests serve as useful tools. 125
- School records, report cards also provide valuable information on giftedness.

4.6.1 Education of the Gifted

The two major approaches to teaching gifted are acceleration and enrichment. Acceleration: These programmes allow gifted students to move ahead at their own pace, even if this means jumping to higher grade levels.

Enrichment: These programmes allow the students to remain in the same grade but provide special programmes and special activities to cover the topics in greater detail and depth. It is generally agreed that the education of the gifted pupils should emphasize the following objectives to cater to their giftedness.

- Analytical perception
- Methods of problem solving
- Employing Analysis & Synthesis
- Conceptual Thinking
- Scientific Objectivity
- Originality and creativity
- Independent study habits
- Encouragement of special interests

4.7 ROLE OF REGULAR TEACHER

The following instructional strategies for educating the disadvantaged are suggested considering the objectives of instructions and their entering behavior to an instructional situation. Basically, there is no difference in the learning potential between the normal and the disadvantaged group of students. But the teacher should monitor the rate, the sequence, the type of materials and presentation modes. Hence, the need of a few guidelines is obvious.

- A continuous appraisal of progress and comprehensive measure of assessment-diagnosis via feedback should become a part of every teaching act and basis of planning the next learning experience.
- If instruction is to be effective these students are to be simultaneously trained to achieve the three objectives: knowledge, skills and attitudes.
- Since the students come to the school with cognitive deficit a special hour may be kept aside for remedial teaching language, training in how to increase some

of their non-intellective characteristics, i.e. self-concept, level of aspiration, n-ach, sense of responsibility etc.

- Learning of concepts and ideas may be sequenced before they are presented to the under privileged group, using more of concrete and life like situations. Training for analytic thinking may also constitute a part of the instructional programme design.
- The imposition of standardized expectation regarding performance should be replaced by more of individualization in the rate of learning and exposure of varied materials. Instructions must be given how to pace performance according to their ability. The teacher has to ascertain the pre-requisites before instructing them to move to the next step.
- For educating the underprivileged, giving recognition, responsibility, tangible rewards, positive affective remarks encouragement have been found to be effective and are to be encouraged in schools. Affective interactions and developments to be supported in a school programme.
- They also need to be acculturated through sensitivity training, exposure to literature, discussions and group contacts, role playing and case conferences.
- Self-instructional materials may be used best to their advantage. i. The culture specific curriculum relevant to their life, especially for tribal population should be developed and used.

4.8 LEARNING DISABILITY

Learning disability (LD) is a term used to denote a neurological handicap that interferes with a person's ability to receive, process, store, and retrieve information. LD creates a gap between a person's ability and performance caused by an alternation in the way information is processed. Repetition and drilling does not alter this processing, but presenting materials in a different way helps. Individuals with LD are generally of average or above average intelligence.

- LD can affect one's ability to read, write, speak or compute math, and can

impede socialization skills.

- Early diagnosis and appropriate intervention and support are critical for the individual with LD.
- Because it is often a ‘hidden handicap,’ LD is not easily recognized, accepted or considered serious.
- It is believed that LD never goes away, but can be compensated for.
- Attention deficits and hyperactivity are sometimes coupled with LD, but not always.
- LD is not the same as the following handicaps: mental retardation, autism, deafness, blindness, and behavioral disorders. It is thought that up to 15 percent of any population anywhere contains learning disabled. Specific learning disabled (LD) persons find it difficult to succeed in conventional classroom. Therefore, it is essential that all teachers, preschool through university, will have LD students in their classes, unrecognized, undetected and therefore considered to be the “dullard,” the backbenchers.

LD is a neurological condition that is beyond the control of the individual. Such a student is more normal than different. There are degrees of LD – mild, moderate, and severe. It might go undiagnosed as late as secondary school, university, or even never at all. The younger the child when diagnosed, greater is the possibility of remediation. When a student is older, it is coping strategies that need to be strengthened

4.8.1 *How it affects the Students*

Learning disabilities affect the kid from a spread of angles- but mostly, self-esteem and self-confidence. In the very early years the feedback comes from parents, but since learning at this stage is fairly non stressful, the occasions for failure are few. The situation dramatically changes when the kid enters schools and encounters other children (who isn't a brother, sister or a cousin), competition (in an alien atmosphere), and other adults (who are not parents). It is the latter which have a really significant and lifelong impact on all students. This involves not only the teaching of particular

academic skills, but as importantly, the fostering of students self-esteem, that is, to make them feel that they belong and are welcome in the school setting. This can be wiped out the classroom by providing them with responsibilities through which they perceive themselves as contributing and making a difference (e.g., distributing books to the scholars , helping younger children during recess, helping make charts for the class). Offering them opportunities to form choices and decisions and solve problems, communicating encouragement and regeneration also will help the method . While these kinds of positive interventions are important for all students, they are particularly relevant for student who finds learning problematic. Negative experiences within the school, especially in terms of learning incapacity can leave long lasting scars of being demeaned, belittled, or accused of being disruptive as they struggled to know what was being taught.

Behavior Problems:

- LD can present with hyperactivity and impulsive behavior with lack of reflective thought prior to action. These children have poor peer relationships and poor social judgments. They may behave inappropriately in different situations and fail to see consequences of their actions. They may be overly gullible, and easily led by peers. They show poor adjustment to environmental changes and excessive variation in mood and responsiveness.

Emotional Problems

- LDs often go unrecognized. Children may present with symptoms such as school refusal or agoraphobia, or develop somatic symptoms such as headaches and stomach-aches, especially on the school day they are expected to speak or read in front of the class.
- Undiagnosed and untreated, these problems increase till the child begins to dislike school, refuses to do homework, and perhaps develops oppositional defiant symptoms. Some children may become verbally abusive and physically provocative. Successful intervention with these children requires the diagnosis

and treatment of the learning and language problems. Behavioral and emotional problems are more likely to emerge as children mature and academic tasks become more difficult and peer interactions become more complex.

Environmental Causes:

These could be poverty, inadequate housing, family dysfunction, and parental psychopathology or substance abuse, dysfunctional peers, too much of television viewing, inadequate or improper schooling.

4.8.2 General Guidelines for Educator

- Students with LD may take much longer to learn and can also tire quickly. They have to try harder, which can be exhausting. Be aware that the pace of the normal class is likely to be too fast because they often need more to process language. Make a conscious effort not to speak too rapidly.
- Be prepared to learn from the parents. Interest, involve, and work closely with them. Use whatever work home /schools agendas, face-to-face meetings, phone calls or e-mails. Ensure that information concerning the student is passed on when the students is in transition from one teacher to another and from one year to another. Do not assume that this will be done automatically.

4.9 SUGGESTED STRATEGIES

- Encourage students to be aware of and to evaluate the strategies they use to study and to learn Study skills, like note taking and time organization, need to be actively taught.
- Provide structure. Lists of the day's routines and expected behaviors can be great help. Give plenty of warning when changes are made to the timetable, teacher or task.
- Teach how to ask questions. All students, especially the ones with LD, need to feel comfortable with seeking assistance.

- Break activities into small, sequential tasks. Give specific examples.
- Repeat, repeat, – both old and new materials, in different ways.
- Provide the amount of structure and support that the students needs.
- Do not expect the student s to listen and write simultaneously.
- Mark positively- tick the good bits. Mark for content – not presentation or mark for presentation and not content.
- Do not use playtime to finish work.
- Reward any and all good behavior.
- Very important, seek opportunities to praise and build self-esteem

4.10 ASSITIVE TECHNOLOGY

Assistive or enabling technology includes devices, tools, hardware, or software, which enable, partially, people with disabilities to use the pc . It presents an alternate thanks to access the content on screen, command the pc or process data. Specific adjustment software or devices for manipulating the pc include (Arrigo, 2005). Electronic and knowledge Technology is at the guts of this revolution in learning opportunities for disabled students because they're the idea of assistive technology. In the US, assistive technology (AT) was defined and encoded into law as a part of various disabilities protections designed to equalize education.

In President Bill Clinton's Assistive Technology Act (1998), it was defined in a way that is consistent with the development and use of assistive technologies around the world:

“Any item, piece of kit, or product system, whether acquired commercially off the shelf, modified, or customized, that's wont to increase, maintain, or improve functional capabilities of people with disabilities. AT service is directly assisting a private with a disability within the selection, acquisition, or use of an assistive technology device.”

In other words, once you see someone wearing a hearing aid, employing a prosthetic limb, employing speech-to-text software or other tools, they're using assistive technology. In addition, when students receive overtime to figure on an

assignment, have someone by their side to require notes during class, or produce other aids that aren't necessarily a bit of kit , they're receiving assistance for a documented disability.

- Screen reading software (speaks displayed text and allows simulating mouse actions with the keyboard).
- Screen magnification software (for enlarging the content of the screen).
- Braille display (for displaying Braille characters).
- Alternate input devices (e. g. Screen keyboard) and special keyboard (to make data entry easier).
- Keyboard enhancements and accelerators (like Stick Keys, MouseKeys, repeat Keys, Slow Keys, BounceKeys, or ToggleKeys), mnemonics and shortcut keys.
- Alternative pointing devices (e. g. Foot operated mice, head mounted pointing device, or eye tracking systems).

These aiding technologies can be either devices or equipments (hardware) e.g. Braille, or software applications e.g. screen reading software. However, these technologies do not seem sufficient for providing full support to people with disabilities. Web content providers should also participate in the inclusion process by making arrangements that allow particularities of people with disabilities to be taken into account when creating web content. Several efforts were conducted toward addressing this issue.

4.11 EXAMPLES OF ASSISTIVE TECHNOLOGIES

The new sorts of assistive technologies are often nothing in need of miraculous. For example, watch this footage of theoretical physicist and world-famous genius Hawking provides a lecture to an enormous student audience. Hawking suffers from amyotrophic lateral sclerosis (ALS) and has almost no ability to maneuver or speak on his own. Instead, he uses speech-generating technology during which computer software translates what he types on a keyboard (which he can do only with small physical movements of two fingers or his cheek) into a synthesized voice. In addition, the pc software includes auto- correct, in order that he only must A few letters before

the pc recognizes and kinds out the whole word for him.

Stephen Hawking is one among the simplest samples of how assistive technology has changed education: without such technology, Hawking wouldn't be ready to make his major contributions to our understanding of the planet, and students wouldn't be ready to learn from him. Hawking could also be the foremost famous user of assistive technology, but there are numerous new sorts of assistive technology available to today's students that it's difficult to list them all! There are technologies for every category of disability:

Speech-Recognition software: Students handling blindness/visual impairment, or with physical limitations that prevent them from typing on a keyboard, can use text-to-speech devices (mobile and otherwise) to compose their assignments. When using these programs, students speak into a microphone, which then translates their words into typed documents. The most well-known of the software programs that perform this task is Dragon Naturally Speaking, which also recognizes voice commands such as "insert exclamation point."

Text-to-Speech software: This kind of assistive technology helps students with visual impairments by allowing them to concentrate to the text that appears on a display screen. This is an enormous improvement over Braille because once the program is installed on the computer; it can read anything on the screen, regardless of what format it's in (e.g. pdf or website) without expecting a Braille translation. This enables students to participate in online activities, use email and text, and have immediate access to course materials. There are many free versions of this software available online, like Natural Readers.

Visual Aids: This broad category of assistive technology includes screen magnification software that enlarges portions of the screen where the reader directs the mouse; screen reader software that translates screen text to Braille, text-to-speech programs; audio texts. All of those are often employed by students of the many different sorts of visual disabilities.

Audio Aids: Another broad category of assistive technology, these student aids include sound amplification tools; alerting devices that use flashing lights or icons on

the pc screen instead of sounds to signal users; close-captioning for videos; TTY (TDD) also referred to as Telecommunication for the Deaf; phones enabled with Voice Carry-Over (VCO) technologies that allow students with hearing difficulties to speak over the phone with their own voice.

Physical Aids: For students with physical mobility, stability, motor coordination, and range of motion challenges, several technologies are available to help them in completing their schoolwork, including audio books for college kids who cannot physically handle books; keyboard adapters like key guards to stop mistyping from tremors or loss of control; voice recognition software for college kids who cannot type.

4.12 ONLINE EDUCATION ALSO HELPS DISABLED STUDENTS

Though disabled students should never be barred from any learning environment, like all students, some do function better in an environment with limited distractions and more accessibility than could be available in many classrooms or on very large campuses. That's where online education can be very helpful. For example, the power to require classes during a single environment, like a headquarters, guarantees that disabled students will have all of their assistive technologies available in one place. Another advantage of online education is that students with behavioral disabilities, who have difficulty concentrating amid the traditional distractions of a classroom, or emotional challenges that prevent them from maintaining appropriate classroom behaviors, can create environments during which their ability to focus won't be compromised.

4.13 TECHNOLOGY CAN HELP STUDENTS WITH BEHAVIORAL ISSUES

In some ways, an equivalent is true for college kids affected by serious illnesses. The comfort of a well-known environment and therefore the ability to figure at their own pace that's characteristic of online courses can help these students. For example, students who fall among the autism spectrum can enjoy both assistive technologies and therefore the limited distractions of online courses. Hopefully, the times are over when disabled students are shunted off into isolated classrooms, without the power to participate within the regular routines of education and develop social relationships with their peers. We have such effective new assistive tools generated by developments in electronic and knowledge technology that disabled individuals, a number of whom even

twenty years ago were unable to speak with others, can now enjoy all the advantages of education, expand their intellects and skills , and live their lives to the fullest. The key feature of up to date computer-based educational technology is that it's focused on accessibility and offers almost limitless flexibility, making it adaptable to all or any sorts of disability. This endless opportunity is actually what education should be all about, for everybody.

4.14 USE OF POWERPOINT IN TEACHING

Microsoft Power-Point may be a presentation program developed by Microsoft. It is a neighborhood of the Microsoft Office system, which is widely employed by business people, educators, students, and trainers. It is a complete presentation program that allows teachers to produce professional looking presentations in classroom (Lari, 2014) provide the needs of students with learning problems. Teachers can present information using all the senses—visual, auditory, kinesthetic, and tactile—which is a highly researched and recommended approach for students with special needs. The slides should be clear, uncluttered, and straightforward to know to be useful for college kids with special needs. According to Coleman, (2009).PowerPoint offers many possibilities for instruction of individuals who have disabilities. This software is widely available and easy to learn. With a touch little bit of time and creativity, teachers can create interesting, fun materials to strengthen learning. After slides have been created, they can be copied to multiple presentations and presentations can be saved on a disk to be used on multiple computers. Many students are motivated by computer assisted instruction and, for a few students who have decreased motor, cognitive, or learning abilities, PowerPoint exposes opportunities for independent skill practice that would otherwise require adult assistance. Presentations are often sent home for extra practice for college kids who have PowerPoint or PowerPoint Viewer available. Teachers need only to spend a touch time learning the program features then open their imaginations to the chances that PowerPoint provides for creating materials to reinforce instruction for their students. PowerPoint is extensively used in many sectors, but it is not so effectively propagated to academic sectors. This is a result of the need for hardware to run the technology, which currently does not exist in most of the classrooms of the primary school. In light of the study results, given that PowerPoint presentations is very effective in enhance the academic achievement in social and

nation studies among students at-risk for learning disabilities, it should be incorporated in the teacher education programs to prepare the prospective teachers, who may teach the low achieving students as well as the students with disabilities. The researcher recommended organizing training workshops for special and general education teachers on the application of PowerPoint presentations, and curriculum planners should plan the school and class activities to be more student-centered. This will help the students, especially those at-risk for learning disabilities, to achieve better academically. It will also help the students to develop confidence in their abilities to handle any learning task or problem they meet. Further extensive work can be carried out of PowerPoint presentations in primary schools for more subjects among students at-risk for learning disabilities

4.15 GAME – BASED LEARNING

Education is continuously changing, as new approaches emerge to satisfy the requirements of diverse students. One newer approach is game-based learning. Game-based learning is defined because the use of games as a main lesson or the enhancement of a lesson, while keeping learning because the main, desired outcome. There are studies about game based learning within the classroom, differing types of game-based learning, and the way games affect the tutorial growth of scholars. For college kids who have individualized educational plans (IEP), game based learning may be a must to assist guide instruction, create a positive environment, and generate academic success. Whyte, Smyth, and Scherff (2015) found students with autism to be more successful and motivated when using computerized games for tutorial lessons. Students who receive specialized instruction are receiving this instruction thanks to lack of success with a standard approach. Jong (2015) used game-based learning through VISOLE (Virtual Interactive Student Oriented Learning Environment), which positively affected students who are both low and moderate academic learners. Jong (2015) also discussed high-achieving students weren't impacted by this non-traditional approach. This statement shows how important a special approach to academics is significant for college kids who receive specialized education or students who struggle to succeed with a standard approach. for college kids with disabilities to achieve success in class , educators got to specialize in how a nontraditional approach, like game-based learning, can create an environment which drives students to figure hard

and lead students to higher academic success within school.

In a education classroom, the positive and negative impacts of game-based learning on student achievement, and what impact both high and low technology has on student engagement sorts of Game-Based Learning Before research about differing types of game-based learning, it's important to understand what definition of game-based learning is getting used . For this section, the definition of game-based learning is any game which is getting used for a selected learning outcome. Game-based learning is evolving a day, which is why it's important to notice the various sorts of gaming platforms, which incorporates, but not limited to: computer games, board or card games, games played with cards, or movement games. Game-based learning has many categories, especially three specific sorts of games: kinetic, electronic, and analog games. Kinetic educational games use movement, where traditional games are more stationary. Some sorts of kinetic- educational games could also be played on a sensible board, which detects the movement of scholars. Research on kinetic-based games is slim, but the findings are notable, especially for college kids who have a disability. Effects of game- based learning on students diagnosed attentively deficit hyperactivity disorder (ADHD). Throughout this research, it had been found that children with ADHD who used kinetic-based educational games showed improvement with their academic and self regulation skills. Having the connection between movement and academics showed a direct correlation.

Students with autism who played kinetic-based games over a two-and-a-half-month time-frame also revealed the students' attentions were enhanced (Kosmas 2018). This research was a little sample of the large impact game-based learning through kinetic-based educational games can have for college kids with disabilities. Another sort of games used for game-based learning is digital games. Digital games use "various game features, like fantasy, rules, goals, sensory stimuli, challenge, mystery, and control" to help with motivating students to find out within the school setting (Ronimus 2019). There's controversy about knowing if or when technology is employed an excessive amount of, especially with adolescent age students. However, video games for an academic purpose have shown to be an excellent success, if a game is made appropriately. Video games aren't only wont to help motivate students but were an excellent way specialise in a selected skill. Video games are

often and are utilized in all academic areas and social/behavior lessons, too.

Video games allow students to make characters and learn through an alternate world. Students not only learn from the content of the sport, but also learn from the structure of the sport, like rules and challenges are presented during a computer game. The ultimate sort of game being discussed is an analog game, or more simply put, a board or cards a teacher can use classic board games, like Pay Day or Racko, to figure on academic skills, like money literacy and number sense. By incorporating a parlor game or cards into a lesson, students are performing on social skills by learning to play with others while performing on their academics through games. Overall, all three sorts of games are often a positive way for college kids to find out. There's not a right sort of game to implement when adding a game-based learning approach into the classroom. There are multiple positive outcomes from game-based learning within a classroom. The 2 main findings from research involve attention and adaptableness. Plass, Homer, and Kinzer (2015) discussed the importance of adaptable games. Adaptable games adjusted to learner's knowledge, emotions, and other variables to reinforce their learning experience. Game-based learning features thanks to draw students into their learning and keep their attention. Not only have researchers seen a rise within the amount of your time students stay focused on their work, but students also are showing a positive attitude in school. One reason a student was staying actively engaged in their work is thanks to the adaptability of games during game-based learning. Game-based learning continues to prove, through research, how beneficial it are often when appropriately used within a classroom.

Game-based learning endorses a positive outlook on school, helps students become independent learners, and promotes critical thinking, all while working on social skills (Khan 2017). Beyond adaptability and attention catching, game-based learning fosters positive social interactions, develops 21st century skills, and improves academic scores. Promoting positive social interactions happen two ways through game-based learning: from social or behavioral lessons and through play. First, educators are ready to use game-based learning to make games for college kids to participate in that specialize in social skills training. Craig. It is important to note this specific study focused on social skills training online. Game based learning, specifically online, could create a uniform practice for all virtual learners, while continuing to adapt to students'

specific needs at the same time. Apart from using game-based learning for social skill lessons, game-based learning promotes positive social interactions through play. When giving students a game to play, the students were not only focused on the academics being taught, but also emphasize how to work together, foster valuable competition, and motivates students to communicate with one another. These skills directly correlated to the 21st century core standards, which focus on employability skills, political science-civic literacy, financial literacy, health literacy, and technology literacy.

The main 21st century core standard focused on employability skills. Digital games improve problem solving skills, strategic thinking, adaptability to change, and how to use resources. When students are given games to play with others, they focus on how to work with one another, how to self-regulate their emotions, and how to work toward an end goal. One skill usually difficult to teach students is how to lose with grace and to know failing is okay. This could be a social skill a student grasped while using game-based learning in the classroom. Game-based learning may be a central way for college kids to start learning the way to deal with their feelings and self-regulate. When students are presented with a traditional approach, they are not given these opportunities to work with others and gain an understanding of how they feel. Social lessons are taught during the school day, but with game-based learning, they are embedded throughout each lesson creating a greater learning outcome. Social interactions are not the only skills occurring when using game-based learning within the classroom. There is an immediate correlation to academic scores heightening through game-based learning, especially for struggling students. Students with disabilities have a more difficult time connecting with traditional approaches, as discussed before, which is why game-based learning can help alleviate some of the labor students feel from academics (Rominus, 2019).

Overall, the positives of game-based learning are apparent. When using game based learning, educators are able to hold the attention of students, create an interest in the task at hand, and improve student's confidence. This team of researchers found an immediate, direct correlation between the utilization of games for learning and academic achievement within the area of number sense for college kids with disabilities. The direct correlation between students achieving higher scores in academic areas and learning how to become respectable employees through social

skills learned shows the importance of an engaging, adaptable teaching approach, such as game-based learning.

4.16 SPECIALLY DESIGNED APPS FOR DIFFERENTLY – ABLED STUDENTS

Technology has played an important part in human growth and inclusivity. Especially for the differently-abled, the technology that's available to us today is playing a crucial role within the inclusive growth of the society. There are platforms out there which are helping the differently-abled with their problems, which might make them ready to lead a far better, normal life, a bit like others around them. Unfortunately, not all education systems are well found out to assist students who learn differently and might need special assistance within the classroom. There are times where technology is basically useful, and this is often one among those times. Assistive technology can fill within the gap and help students with learning disabilities, like text-to-speech software and telepresence robots. The saying “there’s an app for that” holds true for college kids with learning disabilities too. There are varieties of apps which will help these students in order that they can continue to their peers and learn consistent with their needs. Here are apps that are useful for students with learning disabilities.

Avaz: Developed by Chennai-based invention labs together with Vidya Sagar, Avaz may be a picture-based app for youngsters and adults with communication challenges. The app has an in-built vocabulary in seven languages namely English, Hindi, Tamil, Telugu, Kannada, Malayalam and Marathi. The app replaces words with pictures making it easier for autistic individuals to speak with their relations, friends and caregivers. Not only has that but their latest version also enabled you to share messages created in the app via WhatsApp enabling the user to have conversations over texts as well. This app has also garnered praise from UNICEF.

Billion Ables: Committed to introducing and empowering people with special must a more accessible world, this app provides them with information on accessible

places, products and services that are exclusive for them. The brainchild of Sameer Garg who was disabled thanks to a spinal injury over 20 years ago, the app is “India’s first Access Guide for persons with special needs.” The company website lists quite 1,000 disabled-friendly places across India with over 150 verified listings from Delhi-NCR, Goa and Rajasthan. People can place supported the accessibility of ramps, lifts, elevator, step-free access, Braille and signage, signing availability, gluten-free food, eating aids, assistance available, large print, and more. The results are displayed as an inventory also as in Map View.

Let Me Hear Again: Developed and launched by Kerala based Doctor Sharon Baisil, Let ME Hear Again is an app to assist the hearing impaired. The app was a results of Dr Baisil’s passion for technology and his empathy towards the hearing impaired who cannot afford costly mediums as a remedy for disabilities. The app enables the impaired to hear 71 languages by live voice recognition and translation. With features such as Virtual Notes, which is a Virtual Interpreter & Note Taker; Call Companion, which converts phone calls to text in real-time; Quake Awake Alarm for Deaf; and guardian spirit , which alerts the user during emergencies, this app truly enables the disabled. It was also awarded App of the Month award from MIT-App Inventor.

Augmenta11y: Augmenta11y is an Augmented Reality app that helps people with learning disabilities such as dyslexia easily read signage, paper and other material in the real world. Dyslexia is that the commonest learning disorder found today and 4 students from Mukesh Patel School of Technology Management and Engineering in Mumbai developed this app as a neighborhood of their thesis project. This app makes use of Augmented Reality to point out the text during a dyslexia-friendly format and has several other customizable features that much reading much easier. It also has several specialized algorithms for detecting major objects, text stabilization and dynamic resizing to make reading easier.

Hear 2 Read: This app aims to bridge the digital divide for blind and low vision Indian language speakers helps empower people with visual defect to become productive members of the society. Less than 10% of blind children in India get any form of formal education. This is why the text to speech software which converts visual

content into audio allows visually challenged people to read digital media (emails, documents, websites, e-books etc.) just as people with sight do without having to print it. The man behind this empowering initiative is Suresh Bazaj who supported a blind school in Varanasi, where he grew up and learned about the inferior quality of education received by the blind students. Visually impaired children have an equivalent distribution of smart, intelligent people as do the sighted children. However, with the restrictions and poor quality of Braille books, they're unable to receive the type of education they deserve which is what this app aims to eradicate.

Inclov: A matchmaking platform for people with disabilities, Inclov helps said individuals to form friends and find love. Inclov itself stands for inclusive love and is meant for people with or maybe without disability to return together and meet new people around them. Inclov promotes inclusiveness within the community making it accessible and safe to users with visual defect, polio, paraplegia, spastic paralysis, prosthetic feet, cancer, diabetes, thalassemia, or skin diseases like Vitiligo and Albinism, etc amongst others. Founded by Kalyani Khona and Shankar Srinivasan in 2016 the app was created with a vision to assist independent living and social acceptance for the community.

Articulation Station: Developed under the Little Bee Speech host of apps, Articulation Station helps children learn how to pronounce sounds in English through engaging and fun activities such as flashcards, matching activities and storytelling. The app was founded by a licensed Speech-Language Pathologist to assist children and adults with speech and articulation problems learn to talk and pronounce their sounds more clearly.

Autism Core Skills: This innovative educational platform was built by autism experts to help ASD children reach their full potential. Themed lessons (animals, trains, sports, etc) on the app teach academic skills like reading and math, also as social skills like communication, expressing preferences, staying on topic and defining categories. The games also teach students to share, alternate and follow rules. Lessons are embedded with autism best practices, like errorless learning, discrete trials and visual lists and counters.

Choice works: This app helps students who struggle with executive functioning,

teaching them how to cope with day-to-day activities like schedules, waiting and feelings. Using pictures, checklists, storyboards and other interactive activities, Choice works is an essential learning tool for helping children and their caregivers complete daily routines. It can also be customized for teachers to use in school settings.

4.17 LEARNING STRATEGIES

The investigation of mobile learning by Tu and Hwang (2018) served because the reference for the training strategies within the current study. Also, the research questions of the present study were synthesized to construct the learning strategies, including guided learning, peer assessment, video sharing, synchronous sharing, and issue-based discussion, computers as Mind tools, project-based learning, inquiry-based learning, contextual mobile learning, game based learning, and self-regulated learning. Guided learning indicates the studies that directly provided e-learning content for students, whereby the students used any kind of device to access the material by themselves. Peer assessment indicates the learning process that guided students to evaluate other works based on criteria provided by the teacher. Video sharing indicates those learning activities that the scholars needed to record their own videos and share their learning performance with others. Synchronous sharing indicates that the students used a learning platform that allowed them to collaborate with others synchronously and complete their work together. Issue-based discussion refers to those learning activities during which students discussed and shared their experiences associated with certain issues. Computer as Mind tools refers to some learning tools that allow students to organize their learning knowledge, such as concept maps. Project-based learning indicates some activities, during which the learners got to explore a drag, find an answer, attempt to solve the matter, then arrange their findings into a report. Inquiry-based learning means the activities that encourage students to observe and identify problems or solutions. Contextual mobile learning indicates those activities that guide students to learn in the real-world context and further help students to connect the knowledge from the textbook to the real world. Game-based learning indicates the activities that help students to find out about certain subjects or skills as they play. Finally, self-regulated learning indicates those learning activities that train students to engage in autonomous learning.

The study examined the training strategies adopted when applying technologies in education. It could be found that the guided learning strategy was mainly adopted to conduct learning activities employing computer-assisted tools in special education. The usage of the guided learning strategy multiplied many times and became the mainstream strategy. This revealed that the guided learning strategy could help special education teachers receive disabled students' students to learn. This is conducive to evaluating the influences of learning environments in special education schools and the learning achievement of disabled students (Kiboss 2012). Finally, learning through computer-assisted tools in non-limited learning locations, for instance, blended learning or online learning out of sophistication, could promote disabled students' engagement and learning. With reference to professional classrooms, for instance, it could assist disabled students in enhancing their employment interview skills and social skills through mixed reality role-play within the virtual classroom. In the learning environment of the computer classroom, disabled students' learning achievement could be effectively increased through learning platforms. The presentation and control concepts were chosen taking under consideration their particularities for every sort of disability.

4.18 LEARNING DOMAINS

Assistive technology refers to equipment or a system that enhances disabled students' learning, working, or daily living. In addition, the for research issues proposed by Tu and Hwang (2018) served as the reference for the present study, including the technology acceptance model or intention of use, attitudes, motivation and anticipation of effort, self-efficacy, confidence and anticipation performance, satisfaction or interest, cognitive load, learning anxiety, learning achievements (cognitive), learning achievements (skillful), learning behavior or engagement (including learning path), opinion of learner or learning perception (including interview or open-ended questions), correlation or cause-and-effect analysis (including model value, social influence, or influence factor), higher-order skills (including problem solving, meta-cognitive, critical thinking, or creativity), and collaboration or communication. Learning behavior or engagement refers to the research issues analyzing learners' behaviors observed by the researchers or their learning logs recorded by some learning platform to predict the

students' learning performance.

The present study analyzed the studies on integrating technology into special education. Only personal computers received more recognition, while the use rates of other mobile devices like PDAs, notebooks, and mixed and varied were extremely low. In contrast, there was a large-scale growth trend of employing technology in learning activities in special education. In particular, through the Internet, the extensive usage of tablet computers allowed learners to conduct learning activities anytime and anywhere.

Additionally, the use rate of private computers showed slow growth; yet, it had been notable that notebook usage increased significantly, while the speed of using multimedia players rose gradually. On the opposite hand, the results indicated that smart phones weren't adopted in education because computer-assisted tools employed by disabled students were provided by the faculties. Nonetheless, smart phones are one quite personal communication device which is typically used as a private auxiliary tool for learning in lifestyle. Lastly, the results suggest that future studies can keep focusing on the utilization rate, application, and development trends of applying mixed and varied wear-able mobile devices in special education.

4.19 RESEARCH FOCUS

- Implementing online education among differently-abled students.
- Implementing computer based educational technology.
- Analyze the learning strategies of differently – abled students.
- Implementing technology in learning activities of the students
- Analyze the learning domains of differently abled students.
- Analyze and explore the trends of integrating technology in special education.
- Implementing strategies for listening, writing, reading, and speaking skills among disabled students.
- Implementing computer assisted tools to make learning process simple.
- Making the students involved in learning using modern technologies.

CHAPTER V

5.1 DISCUSSION AND CONCLUSIONS

The current study is facilitating learning opportunities using modern technology among differently-abled students. It was found that the amount of studies that employed technologies in education has increased since 2013. The reason lies within the convenience brought by the mixing of mobile devices and wireless Internet, which have resulted during a sort of mobile applications. For instance, the integration of mobile devices and learning software applications could facilitate expanded use and extension of functions to support learning activities in special education and additionally provide special education teachers with more diverse teaching approaches. Also, it assisted disabled students in using mobile devices more flexibly to promote their learning. Also like teaching students with colorful videos and PowerPoint presentations made learning easy and interesting. Disabled students also felt that useful and easy to handle as that implements self learning among them.

Thus, in comparison to other computer-assisted tools, this study indicates that combining touch-screen tablet computers with learning software applications could offer more diverse learning methods. This could attract disabled students' interaction through the touch screen, allowing them to receive learning feedback, and improving their learning methods. Game based learning creates a positive learning environment and makes learning interesting especially among disabled students. It has many categories like computer games, board games, games played with cards, and movement games. It endorses a positive outlook on school. It helps students become independent learners, and promotes critical thinking and also on social skills. Board race: This was used for revising vocabulary. Students were divided into two teams and each team has to form words and writes it in the board relating to the topic given. For example the game Hang man was used as warm-up game where students has to fill the letters to form words using word count(letter assumed by teacher) if the letter doesn't fit the word students has to draw a hanging man step by step and before completing the drawing students will find the word.

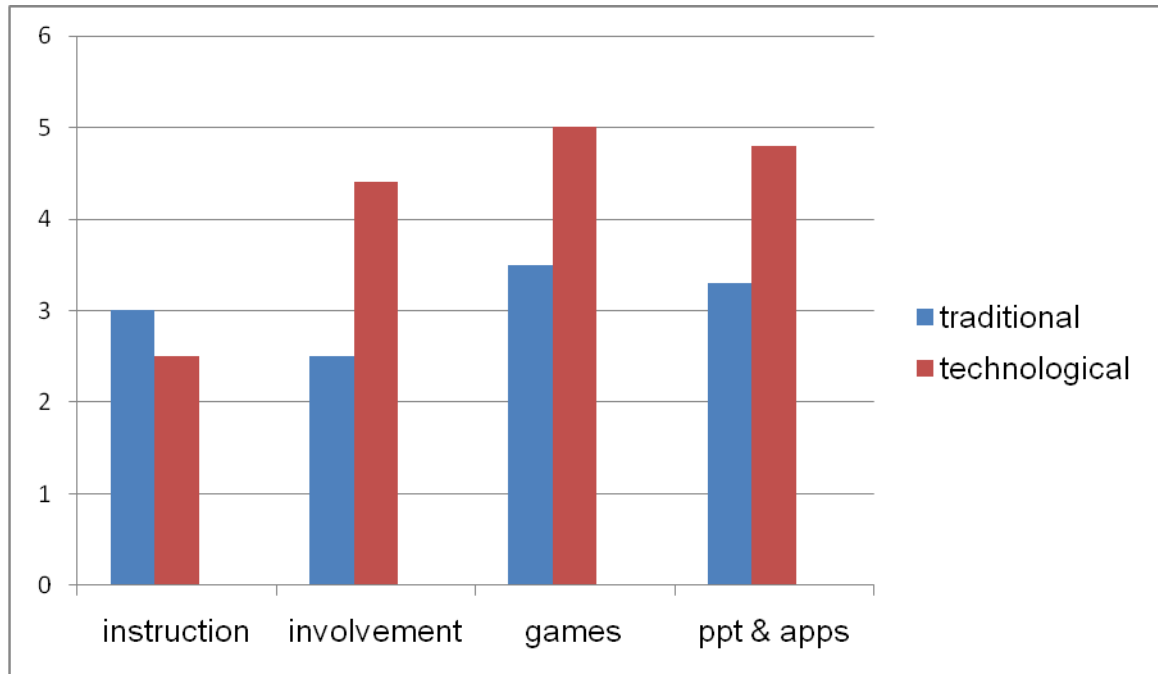


Figure 5.1: Graph Showing the Results between Teaching in Traditional and Technology

From the above chart we can analyze the difference between the effect of traditional and technological way of teaching. In the medium of instruction traditional way takes the chance because disabled students are more comfortable with their caretaker who can give them instruction kindly, while disabled students show more interest and involvement in learning when it is associated with technology rather than preferring traditional way of teaching and learning.

Disabled students also show more interest and they enjoy learning when it comes to learning through games and again here technology takes over as students also shows more interest in games associated with technology rather than the usual traditional games. When it comes to learning through PowerPoint presentations and apps students felt it easy and enjoying because that makes learning simple and interesting than the traditional method where they felt bored with the same way of teaching.

In addition, the results indicate that the application trends of technology changed significantly in the past decade from traditional desktop computer systems to mobile

learning systems in special education. In view of this, numerous researchers in special education have indicated that the educational software applications on the market are generally not appropriate for the learning environments in special education. They have not only improved the applicability of the content of the learning materials for disabled students, but have also reduced disabled students' difficulties posed by applications and increased their willingness to use them.

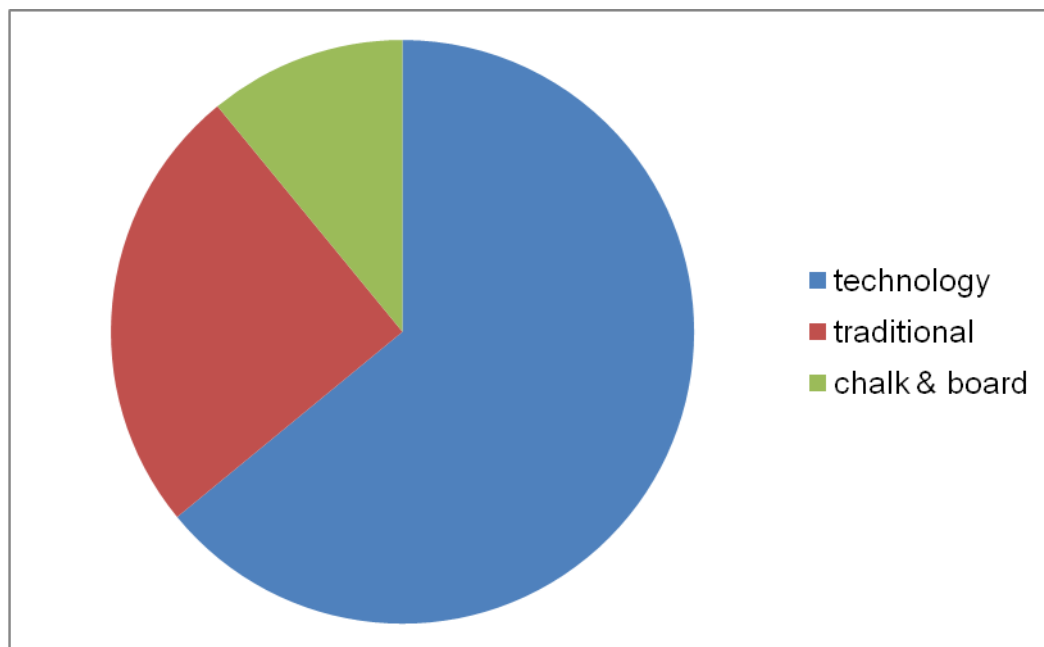


Figure 5.2: Pie Chart Showing the Overall Results of Students

The above pie chart shows that maximum number of students showed better results in technological based learning while only few showed active results in chalk and board teaching rather traditional method showed better results as students felt it easy anyhow technology took the turn as it made learning interesting enjoying among the students.

According to the results, it was also found that researchers tended to integrate guided learning and investigated learners' cognitive achievement, skill performance, and learning behaviors. However, few researchers have incorporated higher- level strategies (e.g., computers as Mind tools and project- based learning) into their research. As for the research subjects, types of disabilities, and levels of disability, researchers tended to investigate the effectiveness of technology for every

disabled student. It is suggested that future studies can investigate the effectiveness of specific technology or learning strategies for specific disabilities, which could help teachers to seek out appropriate learning modes for students with specific needs.

Researchers have mentioned the advantages of employing computer-assisted tools and software applications to enhance students' learning achievements in education. The greatest advantage is that software applications are developed supported theoretical foundations, enabling teachers to more effectively adopt computer-assisted tools in their teaching activities through systematic instructional design (Fitzgerald 2008). In short, the mixing of computer-assisted tools and software applications is an important complementary tool which could support different instructional activities, promote disabled students' learning interest and learning achievement, and increase their learning efficacy.

- The results revealed that the most examined method of teaching was games.
- Investigating the possibility of using several technology-enhanced learning strategies that are rarely adopted in special education, such as peer assessment, issue-based discussion, computerized Mind tools, project-based learning, and inquiry-based learning.
- The use of technology in special education helps break the barriers for people with disabilities and provide them with access to the most relevant educational programs. Properly designed software and hardware allow students with special needs to get modern education and achieve any required information online.
- Technology helps provide students with individual learning events, enables reaching higher flexibility and differentiation in educational methodologies. With modern technology, teachers can adapt to the possibilities of a particular student with minimum effort and choose one of the dozens of available learning tactics designed to meet the needs of individual learners.

5.1 RESULTS

- Students were introduced to the modern gadgets.
- Students were taught with the basic knowledge to operate the gadgets.
- Basic knowledge about online applications was taught.
- Specially designed applications for disabled students were also introduced.
- So far students are trained in using modern technology.
- Trained to use apps specially designed for disabled students.
- Small tests on vocabulary and English speech sounds were conducted among the students and results were recorded.
- Deaf and dumb students showed interest in learning through colorful videos and tests were conducted on the topic students showed better results.
- Blind students showed interest in learning through audio and game based learning and showed good results in the tests.
- Students with physical disabilities were able to perform with most of the technological learning with an adult guide and showed good results.

To sum up, the findings of the present study reveal that employing technology & computer- assisted tools together with software applications has gradually attracted the attention of researchers of special education. For example, the research purpose of this study was to investigate the use of technology use in special education. It is suggested that future studies can discuss the effectiveness of different types of technology and different learning strategies for disabled students' learning. In addition, future studies can design more diverse instructional activities by adopting different computer- assisted tools and software applications to function a reference for researchers or school teachers in special education.

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