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# Two Day National Conference on Quality Education for All – A Search for Identity

# December 20<sup>th</sup> & 21<sup>st</sup> 2017



# THIAGARAJAR COLLEGE OF PRECEPTORS (ISO 9001:2015 Certified and Practicing Institution)

Teppakulam, Madurai - 625 009

# FROM THE PRINCIPAL'S DESK



Education is the backbone of our nation. It is an instrument to national human resource development. Listed among the fastest growing economies in the world, India stands way behind in the line, when it comes to education. Low quality education is crippling India's growth to cope with the demands of the 21st century economy. It is widely observed that students prefer learning mechanically than getting imbibed with the concepts. Studies have questioned the learning of students as they move to higher schools.

A business cannot be expected to deliver the best results if one step in the operational cycle is not properly linked to the next step. Adequate resource investment during each step of the cycle is critical for a business to achieve its goal. Similarly, it is not justified to expect from our citizens to realise their full potential if they don't invest in every phase of their education journey. The start must be by recognising that early childhood education lays a strong foundation and ensures that every child receives it as part of the formal schooling system. Moving on with early education, the focus should be on strengthening every child's literacy and numeracy skills.

Eventually, as an individual pursues higher education, it should be ensured that he/she receives 21st-century skills such as writing, communication, critical thinking and collaboration, which will make them an informed and a productive citizen. There is a need for improvement in quality of information to improve quality of education in reversing the decline in enrolment.

A high-quality Education system is a pre-requisite for our country to achieve global excellence. For addressing India's Education crisis, we require resolute political leadership with a clear vision for education that is able to unite the forces of government, corporate houses and civil society organisations towards building the nation of our dream. I wish this two day National Conference will address these issues.

Dr.S.Prakash

# **MESSAGE FROM THE EDITORIAL COMMITTEE**

Every individual should have the opportunity to receive a quality education. One of the most powerful tools for empowering individuals and communities is making certain that any individual who wants to receive a quality education can do so. Ensuring quality education is one of the most important things we can do for future generations.

The essential purpose of this journal is to inform, engage and inspire educators by presenting a portrait of our college and this two day national conference on Quality Education. In the originality of its conception, in the excellence of its writing and visual presentation and in its commitment to accuracy, healthy discourse and editorial balance, this journal endeavors to reflect the values and the quality of the college and conference itself. The papers published in this issue of journal puts the light over the issues and concerns for quality education. A number of Strategies to be taken up to ensure quality education has also been discussed by experts, educators, scholars and student teachers in this journal. With an optimistic thought of bringing a revolution for quality education, we look forward to apply all possible ways and means in achieving quality education where all learners have their own unique identity.

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# LEARNERS AND TEACHERS AS LEARNERS FOR QUALITY EDUCATION

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#### Abstract

In present scenario, all aspects of the school and its surrounding education community the right of the all children to survival protection development and participation are at the Centre. the focus is on learning which strengthens the capacities of children to act progressively on their themselves behalf through the acquisition of relevant knowledge, academic skills, appropriate attitudes, which creates for children, helps them create for themselves and others children's, places of safety, security, healthy interaction systems that embrace change through data generation use and self-assessment are more likely to offer quality education to learners. Continuous assessment and improvement has been focus on all dimensions of system quality such as learners, learning environment, teaching and learning process and outcomes of the students. This study mainly focused on mentioned above teachers is main role in quality education for teaching and learning process.

Keywords: Skills, Learning Environment, Quality Learners, Quality teachers, Quality Outcomes.

### Introduction

Quality Education as a structural concept, these different pressures has been resulted in the concept of quality education coming to the fore as students, parents and communities, teacher educators, leaders, and nations acknowledge that what is learned and how learning occurs is as important as access to education. The beginning of the 21<sup>st</sup> century, when education is increasingly understood to be more than reading, writing and extends to the elaborate vision of education, the understanding of what constitutes a quality education is evolving. The conventional definition remains important to understanding quality education. It includes attitudes, numeracy, day to day life skills, and is linked directly to such critical components as teachers, academic content, teaching methodologies, co-curriculum, examination systems, planning management, administration and supervision. There is a demand, however, for education to reflect upon its relevance to the global world.

### **Definition of Quality Education**

A good quality education is one that provides all learners with capabilities they require to become economically productive, develop sustainable livelihoods, contribute to peaceful and democratic societies and enhance individual well-being (VVOB-1982).

### **Dimensions of Quality Education**

• Learners are healthy well-nourished and ready to participate and learn and supported in learning by their families and communities.

- Surroundings that are healthy, safe, protective and gender-sensitive and provide adequate resources and facilities.
- Content that is reflected in relevant syllabus and materials for the acquisition of basic knowledge, especially in the areas of attitude, numeracy and skills for life, and knowledge in such areas as gender, health nutrition and peace education.
- Processes through which trained teachers use student-centered teaching methodologies in well-managed classrooms and skillful assessment to facilitate learning and reduce disparities.
- Outcomes that encompass knowledge, skills and attitudes and are linked to national goals for education and positive participation in the present centaury.

# **Quality Learners**

Learning systems work with the children who come into them. The quality of children's lives before beginning formal education well influences the kind of learners they can be. Many factors go into making a quality learner, including health, early childhood experiences and parent support.

# Good Health and Nutrition

Physically or mentally healthy children learn well. Healthy development in earlychildhood especially during the first three years of life plays an important role in providing the basis for a healthy life and a successful formal school experience (McCain & Mustard, 1999). Adequate nutrition is critical for normal brain development in the early stages, and early detection and intervention for disabilities can give children the best chances for healthy development. Prevention of disease and injury prior to school enrolment are also critical to the early development of a quality learner.

# Early Childhood Psychosocial Experiences

Early childhood psychosocial experiences and interactions are also vital role to preparing a quality learner. Studies from India and Latin America demonstrate that disadvantaged children benefit the most from such programmes (UNICEF, 1998). In addition to cognitive effects, the benefits of good early childhood programmes include better psychosocial development.

# **Regular Attendance at Learning**

Research demonstrates that to achieve academically, children must attend the school regularly. A child's exposure to curriculum his or her opportunity to learn significantly influences academic achievement and exposure to curriculum comes from being in school activities (Fuller et al., 1999).

### **Family Support for Learning**

Parents may not always have the background to support their children's cognitive and psychosocial development throughout their school life. Parent's level of education, for example, has a multifaceted impact on children's to learn in school. In one study children whose parents had primary school education or less were more than three times as likely to have low test scores. Parental education not only influences parent-child interactions related to learning but also affects parents' income and need for help in the home or field help that often comes at the expense of keeping children in school (Carron &Chau, 1996). Parents with little formal education may also be less familiar with the language used in the schools, limiting their ability to support learning and participate in school related activities.

### **Quality Learning Environments**

Learning can occur elsewhere, but the positive learning outcomes sought by educational systems happen in quality learning environments. Learning environments are made up of physical and psychosocial elements.

# Physical Elements

### **Quality of School Facilities**

Physical learning environments, in which formal learning occurs, range from relatively modern and equipped buildings to open air gathering places. The quality of school infrastructure facilities seems to have been an indirect effect on learning that is hard to measure.

### **Psychosocial Elements**

Peaceful, safe environments, especially for girls.

Within schools and classrooms, a welcoming and non-discriminatory environment is critical to creating a quality learning environment. In many countries, attitudes discouraging girls' participation in education have been significant barriers to providing quality education to all students.

### Teachers' behaviours that Affect Safety

Relative to both girls and boys, parents, educators and researchers express important concerns about teachers who create an unsafe environment for students. Teacher behaviours affect the quality of the learning climate since learning cannot take place when the basic needs of survival and self-protection are threatened.

### **Effective School Discipline Policies**

Well-planned and managed schools and classrooms contribute to quality education Students, teacher educators and administrators should agree upon school and classroom rules and policies, and these should be clear and understandable.

# Non-Violence

War and other forms of interpersonal and group conflict have an impact on children's mental health and their ability to learn. Many young victims of violence suffer lasting physical, psychological, social-emotional and behavioral effects.

# Service Delivery

# **Provision of Health Services**

Provision of health services and education can contribute to learning first by reducing absenteeism and inattention. Students with not well children cannot attend school and shows that children's illness is a primary cause of absenteeism (Carron &Chau, 1996). Today, the potential of school-based health interventions in improving academic performance is becoming increasingly clear as problems of protein energy malnutrition, micronutrient deficiency disorders, helminthes infection and temporary hunger among children continue to plague developing countries.

High quality physical, psychosocial and service environments in schools set the stage for learning to occur.

# Learners and Teachers as Learners Health and Psychosocial Development

- Good health and nutrition status
- Learner confidence and self-esteem
- Regular attendance at learning
- Early assessment of disabilities

### Home

- Home/school/society partnerships
- Family involvement for learning
- Positive early childhood experiences

# **Quality Content**

Quality content refers to the intended and taught a curriculum of schools.

# Materials

• Comprehensible, gender-sensitive, relevant to schooling

# Curriculum

- Based on defined learning outcomes,
- Non-discriminatory and student-centered,
- Unique local and national content,
- Includes Literacy, Numeracy, Life skills, attitudes,
- Includes relevant knowledge on gender equity, HIV/AIDS, health, nutrition and peace.

# Students

- Intervention and special assistance where needed
- Time on task
- Access to language used at school Relevant, student centered methods leading to active participation

# **Quality Processes**

Until recently, much discussion of educational quality centered on system inputs, such as infrastructure and student-teacher ratios and on curricular content. In present years, however, more attention has been paid to educational processes how teachers and administrators use inputs to frame meaningful learning experiences for students. Their work represents a key factor in ensuring quality school processes.

# Teachers

- Competence and school efficiency
- Ongoing professional learning for teachers
- Positive and gender-sensitive teacher/student relationships
- Belief that all students can learn and commitment to student learning
- Feedback mechanisms that target learning needs
- Frequent monitoring and assessment by teachers that leads to further learning
- Positive living or working conditions

# Supervision and Support

- Adjustment in school hours and calendars to support student learning
- Administrative support and leadership
- Using technology to decrease rather than increase disparities
- Governments that are supportive of education systems
- Financial resources for education systems, esp. for recurrent budgets

# Students

- Intervention and special assistance where needed
- Time on task
- Access to language used at school and Relevant, student-centered methods leading to active participation

# **Quality Outcomes**

The environment, content and processes that learners encounter in school lead to diverse results some intended and others are unintended. Quality learner outcomes are intentional expected effects of the educational system. They include what children know and can do as well as the attitudes and expectations they have for themselves and their societies.

- Achievement in literacy and numeracy.
- Using formative assessment to improve achievement outcomes.
- Outcomes sought by parents.
- Outcomes are related to community participation, learner confidence and life-long learning.
- Experiential approaches to achieving desired outcomes.
- Health outcomes.
- Life skills and outcomes.

# Conclusion

Continuous assessment and improvement has been focus on all dimensions of system quality such as learners, learning environment, process and outcomes. This study mainly focused on mentioned above teachers is main role in quality education for teaching and learning process.

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# A STUDY BASED ON THE IMPLICATION AND ITS SUCCESSFULNESS OF ENVIRONMENTAL EDUCATION IN SCHOOLS OF SOUTH BENGAL

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#### Abstract

Environmental education has become a key to solve environmental problems and also a key to maintain sustainability globally. This present study is an attempt to highlight the status of Environmental Education in upper primary school education system in west Bengal, especially in South Bengal. The source of the data of this empirical study is from field survey supported by random sampling. In this field survey few selective parameters are examined like frequency of environmental classes, frequency of practical classes regarding environment studies, frequency of field observation classes or nature study, type of teaching methodology used, type of evaluation system etc. The status of Environmental education in upper primary school education system is really not satisfactory and there is a need to standardize and upgrade the education system as a whole. **Keywords:** Environmental education (EE); Teaching and learning material (TLM); Field survey.

### Introduction

The past forty years have been growing international recognition so that the challenges associated with environmental degradation and sustainable development have important implications and connections with education and schooling. The concept of environmental education is now widely spreading as national educational policies, curriculum documents, curriculum development initiatives and conservation strategies (Rickinson, 2002). World educators and environment specialists have repeatedly pointed out that a solution to the environmental crisis will require an environmental awareness and its proper understanding which should be deeply rooted in the education system at all levels of school education (Shobeiri et.al., 2007). The environmental education (EE) has been thoroughly discussed at several national and international seminars, workshops, conferences after the deliberations at Fourex in 1971 and in United Nations Conference on Human Environment at Stockholm in 1972. On the occasion of the First International Conference on Environmental Education held in New Delhi, in 1980, the late Mrs. Indira Gandhi observed that environmental education (EE) helps to arouse social consciousness and make community aware of the fact that the good of the individual and that of the community are both harmed by ecological disruptions. In 1985, there held the Second International Conference on Environmental Education (EE) at New Delhi. Several important points emerged from deliberations at the international, national, regional and even local conferences on environmental education (Sharma, 2004).

### Objectives

The present study has a specific broad enquiry about the status of environmental education in school education system. Further in details, this study has some objectives which are as follows:-

- 1. To find out whether there is any allotment of classes regarding environment education and also the frequency per week per school of South Bengal.
- 2. To find out whether there is any allotment of practical classes regarding environment education per week per school of South Bengal.
- 3. To find out whether there is any allotment of field observation classes regarding environment education per week per school of South Bengal.
- 4. To find out whether there is any use of teaching learning material (TLM) in class-room teaching for making the subject more attractive in schools of South Bengal.
- 5. To find out whether there is any systematic evaluation system regarding environment education and also the frequency in an academic year in schools of South Bengal.

### Data source and methodology

The main source of data in this present study is field survey and another source of data are various books, journals, reports etc. After significant articles review, the frame work of this study is made. The six districts of south West Bengal (Nadia, 24 parganas (N), 24 Parganas (S), Kolkata, Howrah, Hoogly) are merely selected for survey. Pilot survey was followed by the field work and the field study was based on random sample survey. As the area of this study is quite large, it is being conducted by efficient survey team, one surveyor was appointed for each district and all the field survey have been exclusively supervised by the authors. Keeping in view the specific objectives, short interview schedule was framed on the basis of comprehensive study of the concerned literatures. It includes both closed and open ended questions. Keeping in mind the aims and objectives of the study, the survey was carried out in middle school, higher school, madrasa, convent school, girls' school, boys' school etc. in the six districts of West Bengal (South Bengal). From each district approximately 25 schools were covered and from each school twenty regular students were surveyed. The total number of sample is 1250. Table 1 depicts about the number of samples surveyed. The schedule consists questions on student identification, age, sex, enrollment, attitude, class performance etc., queries related to each respondent i.e. number of theoretical and practical and field observation class per week, procedure and technology used for teaching, number and types of evaluation adopted in an academic year, kind of regularity maintained by authority etc. Cross-questions are also included so as to elicit the required information accurately.

Sl. No. District	No. of School	Average No. of Sample per School	Total no. of Sample
1.Nadia	25	20	201
2.24 Parganas (N)	25	20	220
3.24 Parganas (S)	25	20	198
4.Kolkata	25	20	205
5.Howrah	25	20	195
6.Hoogly	25	20	231
Total	160	120	1250

# Table 1 District-wise number of sample surveyed

To supplement the information collected through interviews, indirect and informal discussions are also carried out with the school authority and guardians of the selective students. The information obtained from each respondent is also spot-checked to verify the accuracy so as to minimize the response errors.

# Study Area

For this present study, merely six districts are selected namely Nadia, 24 Parganas (N), 24 Parganas (S), Howrah, Hoogly and Kolkata which is formally called as South Bengal. The study area extends from 26  $\Box$  14 ' S to 25  $\Box$  40 ' 22" S and 89  $\Box$  49 ' E to 92  $\Box$  54 ' 35" E and covering an area of 23,598 sq. km.. The total number of middle schools in South Bengal is 1709, where Kolkata district has 223 upper primary schools followed by Nadia, 24 Parganas (N), 24 Parganas (S), Howrah and Hoogly have 289, 306, 216, 237 and 447 upper primary schools respectively (Census of India,2001).

# **Environmental education in South Bengal**

From the Table 2 below it is observed that in most of the schools (69 percent) the number classes regarding environment education (EE) is one per week and the rest of the school (24 percent) conducts two classes per week. On the other hand very minor number of schools (9.33 percent) did not conduct classes regarding environment education regularly in South Bengal. Among six districts of South Bengal, 24 Parganas (S) stands in the first position in allotment of two classes per week per school. On another side Howrah stands in the first position (87percent) in case of conducting single class per week followed by Kolkata.

Single Class Per Week (%)	>2 Class Per Week (%)	Irregular Class (%)	Total (%)
51	44	4	100
72	17	16	100
46	47	9	100
86	16	0	100
92	4	5	100
67	16	22	100
69	24	9.33	100
	Single Class Per Week (%) 51 72 46 86 92 67 69	Single Class Per Week (%)         >2 Class Per Week (%)           51         44           72         17           46         47           86         16           92         4           67         16           69         24	$\begin{array}{ c c c c c c c } Single Class Per \\ \hline Week (\%) \\ \hline 51 \\ 51 \\ 61 \\ \hline 51 \\ 61 \\ \hline 51 \\ \hline 44 \\ \hline 72 \\ \hline 17 \\ \hline 16 \\ \hline 46 \\ \hline 46 \\ \hline 47 \\ \hline 9 \\ \hline 86 \\ \hline 16 \\ \hline 0 \\ \hline 92 \\ \hline 4 \\ \hline 5 \\ \hline 67 \\ \hline 16 \\ \hline 22 \\ \hline 69 \\ \hline 24 \\ \hline 9.33 \\ \hline \end{array}$

 Table 2 Allotment of environment class per week

Source: Field Survey, 2017

In the syllabus of environment education as an example there is compulsory provision for field observation class for real time realization about our environment. But in South Bengal only13 percent schools conducts field observation classes regularly. On the other hand 45.33percent schools conducts field observation classes but with a lesser regularity and it is worthy to mention that 36 percent schools does not conduct field observation class. In case of conducting regular field observation class, regarding environmental education (EE), Nadia and Kolkata districts have taken front position and in case of unable to conduct any field observation class 24 Parganas (S) district have ranked at the top position followed by Howrah district (Table 3).

Sl.No. District	Regular Class (School in %)	Irregular Class (School in %)	No Field Observation Class (School in %)	Total (%)
1.Nadia	17	56	31	100
2.24 Parganas (N)	12	41	11	100
3.24 Parganas (S)	12	26	66	100
4.Kolkata	17	44	41	100
5.Howrah	7	51	46	100
6.Hoogly	13	54	21	100
Total	13	45.33	36	100

Table 3: Allotment of field observation class per week

Source: Field Survey, 2017

Sl.No. District	Lecture Method (School in %)	Using TLM (School in %)	Total (%)
1.Nadia	31	71	100
2.24 Parganas (N)	36	42	100
3.24 Parganas (S)	46	56	100
4.Kolkata	60	43	100
5.Howrah	41	61	100
6.Hoogly	36	67	100
Total	41.67	56.67	100

Table 4: Teaching method used in environment class

Source: Field Survey, 2017

The method of class- room teaching plays a vital role in the improvement of knowledge level among the students about any particular discipline and also helps to grow interest in that discipline. From the Table 4 it is observed that among six districts of south bengal, more than fifty percent (56.67 Percent) schools follow improved teaching method, i.e., using TLM during class-room teaching. On another side, 41.67 percent schools follow conventional teaching method, i.e., lecture method. From this survey, it is revealed that in Nadia district 71 percent schools used TLM in class-room teaching and on the other side in Kolkata district 60 percent schools follow lecture method for class-room teaching.

### **Special Issue 1**

### Conclusion

It is very difficult to arrive at any concrete conclusion. The findings of the study are depicting that although in every school there is a curriculum of formal environmental education (EE), but its standard is not appropriate, most of the schools have not conducted theoretical and practical classes regularly, primitive teaching method have been followed by most of the schools, nature study classes have not conducted regularly and seriously, school administration did not framed any comprehensive evaluation technique regarding environmental education compared to other discipline. Moreover, in all the schools there are no specialist teacher, who religiously teaches environmental education. So, for strengthening and improving of this kind of poor situation some recommendations are enumerated below: (i) Govt. should take care about the proper implication of environmental education in high schools in true sense of its term. (ii) Govt. should prepare a proper guideline for school management and not only this; there should be an enquiry team in every district, headed by District Inspector of School, for monitoring school education system, especially environmental education. (iii) It is quite impossible to appoint specialist teacher in each and every school all of a sudden, but it is possible to train frequently the existing teachers of science faculty about environmental education (EE) and the application of TLM in class management. (iv)Formal system of education should also incorporate in its curriculum, some elements of environmental awareness programmes. (v) Apart from this, with the help of mass media and modern means of communication the concept of environment, environmental deterioration, conservation of environment etc. should be published and popularised.

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# THE APPLICATION OF FISHBONE DIAGRAM APPROACH FOR IMPROVING THE POOR ACADEMIC PERFORMANCE IN SECONDARY SCHOOLS

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#### Abstract

Maintaining academic performance at school education becomes one of the important strategies in order to cope with the unparalleled competitions among schools and institutions. Poor academic performance in secondary schools in India has been called in concern, this is because it stands as the greatest reason why students' academic performance is an important quality concern. Academic performance is an important indication to what extent the students achieved the learning outcomes for subjects and programme outcomes. They are several factors which attribute to poor academic performance at secondary and senior secondary level. In order to get a comprehensive solution for academic performance, this paper addresses the implication of applying fishbone diagram strategy to school education and also identifies factors which affect academic performance. This paper reviews various causes in order to design a method for improving the academic performance.

Keywords: Fishbone analysis, Academic Performance, Secondary school, Quality improvement, Cause root analysis

### What is Fishbone Diagram?

The Fishbone diagram is also known as the cause and effect diagram, the root cause analysis, and the Ishikawa diagram, named after its originator Kaoru Ishikawa, the Japanese quality pioneer. It is generally called the Fishbone diagram because the diagram resembles that of a fishbone. In simple terms, Fishbone is brainstorming in a structured format. The technique uses graphical means to relate the causes of a problem to the problem itself, in other words, to determine cause and effect. The diagram focuses on the causes rather than the effect. Because there may be a number of causes for a particular problem, this technique helps us to identify the root cause of the problem in a structured and uncomplicated manner. It also helps us to work on each cause prior to finding the root cause.

Cause and Effect diagram or Fishbone diagram is a graphic technique and is a good tool to find and significantly analyze affecting factors in identifying the characteristics of work output quality. This fishbone diagram is known as a cause and effect diagram. Why is it that this Ishikawa's diagram has been called "fishbone"? Well, when observed the diagram (see diagram 1), the fishbone, its form has a similarity to a fish, which has a head (as an effect) and a body in the form of bones, illustrated as causes of known problems. Root Cause is the deepest underlying cause, or causes, of positive or negative symptoms within any process that, if dissolved, would result in elimination, or substantial reduction, of the symptom.





Diagram1: Model Fishbone diagram

The fishbone its form has a similarity to a fish, its head (as an effect) and a body in the form of bones are illustrated as causes or problems.(Tiann,2012). Root cause is the deepest underlying cause or causes of positive and negative symptoms. Any process if dissolved would result in elimination or reduction of the symptom.

If the root cause is deepest means, this means that we really have to dig deep to find most roots. They are usually not the most immediate, obvious or proximate causes. Some of them are three, four and five layers down into the system. School systems are social systems. They are more complex than mechanical or biological systems. This is the reason for impossible to isolate a single root cause and often it is possible to identify several causes in combination with a *symptom*. We can dissolve any one of the multiple root causes, the *symptoms* can be reduced or eliminated. Some root causes identify positive or success, negative or failure. By studying the roots for our successes, we can find strategies that can be applied to improving all our processes. While dealing problems, symptoms are found at the surface. This *symptom* gives a noticeable gap between expectation and reality. *Process* can be classified into three elements: a) input b)value-added c) output. *Dissolve*- some symptoms to dissolve with fixing a patch. Once the root is dissolved, the symptom will away of its accord. Root causes may be found at following levels: 1) Incidental or Procedural level 2) Programmatic level 3) systematic level. In schools, it may be difficult or not impossible to identify a single, specific root cause. sometimes, any one of causal factor substantially reduce or totally eliminate the problem.

Scarvada (2004) says that the fishbone diagram can be enlarged into a cause-and-effect diagram. It may be extended through a questioning technique. By identifying the causes of the effect, it is hoped that the result of the production process can be improved by changing the controlling factor of a process. This diagram is also useful for the identification of causes of a potential problem. A cause-and-effect diagram focuses on emphasizing a problem or a symptom of a problem. This diagram can also show the causes of a problem by connecting them into one group.

Fishbone diagrams are used to identify and systematically list the different root causes that can be attributed to a problem. Thus, these diagrams help to determine which of several causes has the greatest effect. The main application of these diagrams is the dispersion analysis. In dispersion analysis, each major cause is thoroughly analyzed by investigating the sub causes and their impact on quality characteristics. The Fishbone diagram helps to analyze the reasons for any variability or dispersion (Prasad et.al., 2012). Cause-and-effect fishbone diagrams focus on the problem emphasized or the symptom which becomes root causes. By identifying a real problem and finding a root cause, an alternative action plan can be formulated or identified which in turn becomes a way out in improving the quality of education.

# Why Root Cause Analysis (RCA) becomes Important?

- 1) eliminates unfounded opinion, prejudice, and organizational myth
- 2) Reduces false starts, patching of symptoms and waste of scarce resources
- 3) Converts data to information, knowledge, understanding, and wisdom
- 4) Improves data-based decision making (Preuss, 2003; City Process Management, 2008).

The advantage of Fishbone diagram is that it can break down each identified problem and everybody involved can contribute suggestions which may be the cause of the problem (Yani, 2007). The fishbone diagram is both a tool and a technique to identify a solution to a problem creatively for the improvement of educational quality. According to a research by Aroem (2013), the root cause analysis has an important role in educational innovation in deciding further corrective and innovative policies. A symptom, phenomenon, gap, or disharmony which exists in the process of education, or any actual problem arising both theoretically and practically, in macro or micro circumstances, can be analyzed by this diagram (Dahari, 2013).

Fishbone model or Root Cause Analysis (RCA) has been in use in the business world to solve problems in many areas:

- Occupational safety and health.
- Quality control in manufacturing.
- Helpful in analyzing and illustrating clinical problems.
- Evaluating supply chain and business process
- Failure analysis in engineering and maintenance.

Fishbone diagram was used in various sectors in order to structure, identify and look the big picture of the problem. Ilie and Ciocoiu (Ilie & Ciocoiu, 2010) applied the fishbone diagram for risk identification for an event in order to develop the appropriate risk treatment strategies. Dhandapani (Dhandapani, 2004) applied the fishbone diagram by combining with Pareto principles for Software industries. Behnam and Alvelos (Behnam & Alvelos, 2011) applied the fishbone diagram in tire industries in order to find the root cause that exists during retreading process. Chang and Lin (Chang & Lin, 2006) applied the fishbone diagram for the analysis of the root cause in tanker storage accident. Chow chin et al (*Chow-chin, Chun-wei, & Jon-chao,* 2008) applied the fishbone diagram in order find root cause analysis of teaching strategy to train primary pre-service science teachers. Clary, Renee, and Wandersee James,2010) describes how can use fishbone diagram to organize read content. Reid and pat, 2014) studied categories for barriers within them is presented. The frameworks of categories of barriers are presented. Weiguo and Hong Lu, 2011) studied fishbone diagrams as the method of inquiry-based training and learning engineering education to develop problem-solving skills for students. They

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provide an alternative theoretical foundation for rethinking and redesigning teacher practices. They find using fishbone diagram as developing problem-solving skills for students.

# When Should a Fishbone Diagram used?

- 1) Need to study a problem/issue to determine the root cause?
- 2) Want to study all the possible reasons why a process is beginning to have difficulties, problems, or breakdowns?
- 3) Need to identify areas for data collection?
- 4) Want to study why a process is not performing properly or producing the desired results?

# How is a Fishbone Diagram Constructed?

Basic Steps:

- 1. Draw the fishbone diagram...
- 2. List the problem/issue to be studied in the "head of the fish".
- 3. Label each "bone" of the "fish". The major categories typically utilized are:
- 4. Use an idea-generating technique (To identify the factors within each category that may be affecting the problem/issue and/or effect being studied
- 5. Repeat this procedure with each factor under the category to produce sub-factors
- 6. Continue until you no longer get useful information as you ask.
- 7. Analyze the results of the fishbone after team members agree that an adequate amount of detail has been provided under each major category.
- 8. For those items identified as the "most likely causes", the team should reach consensus on listing those items in priority order with the first item being the most probable" cause.

In simple terms, FBD is brainstorming in a structured format (Ilie & Ciocoiu, 2010). The technique uses graphical means to relate the causes of a problem to the problem itself, in other words, to determine cause and effect. The diagram focuses on the causes rather than the effect. Because there may be a number of causes for a particular problem, this technique helps us to identify the root cause of the problem in a structured and uncomplicated manner. It also helps us to work on each cause prior to finding the root cause.

# **Research Problems**

- 1. What steps should be taken to develop causes of poor academic performance?
- 2. Is the poor academic performance using Fishbone analysis effective and efficient?
- 3. Is syllabus in use for the secondary school students is inappropriate?
- 4. Was Supervision of schools by inspectors from the Education Department is not effectively done?
- 5. Is there any inadequately qualified staff in schools?
- 6. Is Poor teaching methods contribute to poor performance?
- 7. What is the students' performance for the past three years?
- 8. What are the types of problem that exist in the school?
- 9. What are the types of disciplinary problems that exist in the school?

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# Possible Causes for Poor Academic Achievement at Secondary School

The tasks of the team are:

- To come up with a list of as many as possible causes with the aid of FBD.
- To reach on consensus on the most probable causes (root causes) for poor academic performance.
- Propose methods for improving academic performance rate considering various alternatives in structuring the possible causes to address the issues related to poor academic performance. In diagram 2 structure for analyzing the various possible causes for academic performance



Diagram 2: Structure for analyzing the various possible causes for Academic Performance



# Diagram3: Categorizing the possible causes in improving Academic Performance

# Identification of Most Probable Causes (Root Causes) For Poor Academic Performance

The process of finding the root causes continued by asking detailed questions about each problem causes the root cause was identified. Identification of more detailed levels of causes and organized under related causes or categories. It is observed that prioritizing the causes using Fishbone diagram model is essential in order to alleviate the issues related to Poor Academic Performance.



### Diagram 4: Fishbone Diagram for Improving Poor academic performance

Those causes which are very related to procedures and people can be addressed first so that the effect can easily be noticed in improving the Academic performance. Some of the causes related to policy and facility can take time to implement the change of procedure and facilities like buildings might not be addressed within a short period of time.

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- Medical and Psychological reasons
- Pedagogical and Curricular issues
- Exam Question patterns
- Unhealthy School Atmosphere, Environment
- School Organization
- Lack of ventilation
- Poor lighting in classroom
- Lack of safety measures
- Phobias
- Poor Attractiveness
- Difficult Contents in subjects/unit
- Inadequate time for exams
- Lack of clear plan
- Fear of failure
- Weakness enthusiasm
- Excess of pressure on student
- Parental issues/Unstable families
- Confusion/ state of tension
- Exam Anxiety
- Lack of motivation for success
- Learning disabilities
- Attention disorder

# Strategic Interventions for Improving Poor Academic Performance

From people category of various causes, improving student dedication through various motivations, improving student attendance during lecture and tutorial sessions, improving student's time management skills and improving teaching-learning through different methodology can help for improving the major causes under this category. Also providing assignments, improving students with proper attention and assistance and conducting tutorials in such a way that students are involved in the discussions could minimize poor Academic performance.

- Parental Involvement Strategy
- Provision of Support Programs Strategy
- Capacity Building Strategy
- Behaviour Modification Strategy
- Provision of Life Skills Strategy
- Academic Indicators Strategy

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- Family involvement in academics and learning
- Home-School Relationships
- Encouraging
- Giving memory tips
- Self-reading method
- Special guidance

# Conclusions

It is possible to address the challenge posed by the distribution of student learning abilities in a class, and simultaneously improve the learning of students including those with high and low learning skills. There are several factors which attribute to improving poor academic performance at school education. Categorizing the various causes for improving academic performance with tools such as Fishbone diagram could help schools to implement continuous quality improvement. The identification of the vital few cause could help the schools to focus the resources on the causes which have a significant effect on improving academic performance. The use of collective opinion method and supporting with questionnaire data could be essential in order to come up with the accurate root causes. Identifying these factors is essential in order to design a method for improving the poor academic performance

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# EASY WAY OF TEACHING MATHEMATICS TO THE CHILDREN WITH HEARING IMPAIRMENT

### V.Balashamilyrajath & M.Uthra

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### Introduction

# "Children with Special Needs Inspire a Special love."

Government insists inclusion of special children in normal schools. Special children are physically handicapped, blind, deaf, epileptic and crippled; some differ mentally to a significant degree, being either seriously retarded in intellectual development or exceptionally gifted some are emotionally disturbed or unable to make a proper social adjustment in school and community. In this paper we have deal with hearing impairment children.

### Hearing impaired

# "A person who is deficient in hearing power"

A person is considered to be deaf if they cannot hear the same range of sounds as a person with normal hearing ability. People that cannot hear any sounds are also hearing impaired.

### Types of Hearing impaired

### Conductive deafness is the most common type

- It means that sounds cannot pass efficiently through the outer and middle ear to the cochlea and auditory nerve.
- This is most often caused by fluid building up in the middle ear. It is called Otitis Media with Effusion (OME) and can be referred to as 'glue ear' in some countries.

### Sensor Neural Deafness

- It is caused by a fault in the inner ear or auditory nerve.
- This is sometimes called 'nerve deafness' accurate. Most sensorineural deafness is caused by a problem in the cochlea.
- Commonly, this is because the hair cells of the cochlea are not working properly and it is permanent.

### Mixed Deafness

- It is a combination of both conductive and sensorineural deafness.
- For example a child may have glue ear and at the same time have a problem in their cochlea.

# Causes

There are different causes of deafness:

- Age: Many people will lose their hearing as they get older.
- **Exposure to noise:** Being a noisy environment for a long time may damage ears and cause hearing loss.
- **Genetic conditions:** There may be a history of deafness in the family. If the mother and father are deaf, their child will have a strong chance of being deaf.
- Diseases: Certain disease may cause deafness.
- Drugs: Certain drugs may cause changes to hearing, including deafness.
- Chemicals: | Certain chemicals can damage the ear.
- **Natural:** People are occasionally born deaf. Sometimes there is no explanation why they are deaf.

# Way of Communication

Hearing impaired members of this community have a strong sense of identity as a Deaf person. They feel 'at home' with being deaf and find a commonality with other Deaf people in their use of the sign language. Deaf exist everywhere in the world. Deaf people have evolved into strong communities and have developed **sign languages** throughout history. Lip readings are also taught to the auditory handicapped children to participate in communication with others.

# Sign Language

The most effective way to communicate with a deaf person is to use sign language. Sign language is composed of a system of conventional gestures, music, hand sign and finger spelling, plus the use of hand position to represent the letter of the alphabet. Signs can also represent complete ideas or phrases not only individual words.

- American Sign Language is a language that incorporates mime, and picture-like images to express and convey abstract ideas and concepts. Also, ASL uses space and movement to convey meaning.
- Finger- spelling is mainly used to give names of people, places, and identify brands or movie titles.

# Challenges Faced by Hearing Impaired Children

# **Classroom Acoustics**

Acoustics are often a problem in the classroom, but luckily there are several ways to solve this challenge. Deaf or hard-of-hearing students need full visual access, so the best seating arrangement for full participation, engagement and access by these students is to arrange desks

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in a "U" shape. This will allow the students to see who is speaking, and participate fully in the conversation.

### Language Deficiencies

Keep in mind that some hearing impaired students first (or second) language may not be English. Be sure to provide an appropriate interpretation service that will effectively communicate the lesson in their primary language.

### **Curriculum and Instruction**

Some teachers require all students to take lecture notes during class. A suggestion to assist the hearing impaired children with this requirement would be provide to them with a written or digital copy of the lecture information beforehand. If it is preferred that the student engages more actively in class, teachers can provide a printed copy listing key points, so that the majority of the student's attention remains on the lesson. We also encourage teachers to use interactive whiteboards if available.

### Inadequate Knowledge and Awareness

Every child learns differently. Even if teachers are given instruction on how to be assisted best of their students with hearing difficulty, it is too difficult to understand the capacity of them.

### Lack of Resources

Schools are not capable of supplying proper materials for the hearing impaired children with the proper technology that could significantly increase the learning development process. This could be any form of assistive technology- interactive whiteboards, VRI, chat rooms, strobe lights, digital pen technology, closed captioning on all movies and videos, infra-red systems – hearing aid compatible, computer-assisted note taking, ASL videos for testing materials, alert system.

### Education

The Indian constitution says "Right to education for all". The word "All" denotes all types of children in the country including the hearing impaired one. So these children should also be considered and provided with special education. Education of hearing impairment is traditionally defined as the education of students who have some degree of hearing disability. Ideally, this education should be designed to meet the needs of individual hearing impaired people, and not the group as a whole. This is especially true for individuals who suffer from a disability or physical limitation, such as those who are visually challenged and hearing impaired.

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# Easy Way of Teaching Mathematics to the Hearing Impaired Children

The paper discusses the easy way of teaching mathematics to the hearing impaired children. The concept of multiplication in the mathematics is taken using the *line-drawing* method. For the two digits number 12\*12

In the term twelve, consider the first digit (one) by drawing a single line in a horizontal direction.

Then draw two lines for the next number (two) in the same horizontal direction.

For the next term twelve, digit one represented by drawing a single vertical line in the same figure.



For the digit two, draw two vertical lines on the same figure.



Then separate the portion by drawing arcs.

Arcs are drawn in three positions like upper, middle and lower.



The answer is 144

In the lower arc, mark the joints of vertical and horizontal lines as four points, middle arc as four points and upper arc as one point. Calculate the points from lower to upper. Finally, the

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answer to the problem is one hundred and forty four. This method is also applicable for the anydigit numbers.

### Conclusion

The subject mathematics is usually considered as difficult one for the normal children. It is all the more difficult for the disabled children, especially for the hearing impaired. There are several innovative methods, but this is easy to teach. Hearing disability is not a deficiency but these children have much skill than normal children. So, they should not be neglected and to provide an equal education for all the deaf children. Teaching them should be effective because it makes them understand easily. As per the norms of government, the inclusion of special children in normal schools based on that hearing impaired also included in normal schools. With the availability of special teachers they can also learn in normal schools.

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# "A POSITIVE IMPACT OF USING TECHNOLOGY IN EDUCATION SYSTEM"

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#### Abstract

Present days in information technology and associated communication comes the interconnectivity of all areas of the development process the country. The term "techno-centric thinking" refers to popular belief among teachers and administrators that is focusing on technology-rich environments in education. Techno-centric has focus on equipping the classroom with the latest technology. Technology becomes viewed as the agent of change (Bers, 2008). The presence of computers and other new technologies in the learning process will play an influential role in the way that both technology and culture evolve in the coming future. The future of education technology could be change in many different forms. Thinking of the future as an information technology age definitely focuses on some exciting new developments in education system.

Keywords: information technology, techno-centric, equipping, computers, different forms.

### Introduction

The term techno-centric refers a belief among teachers and administrates that is focusing on technology- wealthy surroundings. This article focuses on equipping the classroom with the latest hardware and software. Techno-centric thinkers feel technology itself can make a learning environment better. Technology becomes viewed as the agent of change.

The computers and other new technologies the education system will play a significant role in the way that both technology and culture develop in the coming generation. The future of computer will be change in many different structures. It will be determined not by the nature of the technology, but by a host of decisions of individual human beings. Thinking of the future as an information age definitely focuses on some exciting new developments. There is more access to more information than there has ever been before.

### The Role of Technology in Education

The technology, in a traditional school setting, is to make trouble-free, through increased competence and efficiency, the education of knowledge and skills. Effectiveness will be defined as the quickness by which we obtain awareness, while this term associate with the amount of imparted knowledge that is operationally mastered. When the technology is directly applied to an educational location, such as a school, both the students and teachers can be viewed as learners. Thus, we can function under the guess that any increase in teacher knowledge and consumption has the impact of increased learning in students. Finally, technology should serve to enhance student success in schools.

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be defined as the quickness by which we obtain awareness, while this term associate with the amount of imparted knowledge that is operationally mastered. When the technology directly applied to an educational setting, such as a school, both the students and teachers can be view as learners. Therefore, we can operate under the hypothesis that any increase in teacher knowledge and use has the impact of learning in students.

Technology can aid in educational achievement through two primary methods: the removal of physical barriers to learning and the transition of focus from the retention of knowledge to its utilisation. All of these methods must be study in the context of their relation to both the student and the teacher to see their value and result in educational location. Long before the computer, the education world was divided into two camps. One highlights the development of the child and the child's active construction of an understanding of the world. We might call these child-centered or developmental-centred approaches to education. On the other hand, in quite sharp opposition are those who believe in a more curriculum-centred approach. At the moment, technology occupies a central place, which imposes the urgent necessity to deepen the reflection on this experience in a perspective of epistemological consolidation (Feenberg, 2011). Technology is widely spread among the various areas of human existence like eating habits, a way of working, health system, etc.

## Positive Impact of Technology on Education

By using of the technology in education, the cognitive skills and academic performance, playing specific computer games has been found to have immediate positive effects on specific cognitive skills, like thinking and knowing. Using Computers at home has been linked mildly positive effects on academic performance. This will assist children to understand language and numbers, to reason and problem solve, and to learn and remember. Studying mathematics by using technology will give positive result on student learning in mathematics. Teachers noted that the internet provided math tricks at different levels. It gave students a chance to choose the level they are easy working.

## Importance of Using Technology in Education

Previous, technology in education was a debatable topic amongst the society. Everyone had their views on modernising and making it technology aided. There were a massive number of positives and negatives to education technology. But, gradually as the technology was held by the educational organization, they realised the importance of technology in education. With technology, education has taken a whole new significance that it leaves us with no doubt that our educational system has been transformed due to the ever-advancing technology. Education and Technology are a great combination if used together with a cause and idea.

With technology, educators, students and parents have a diversity of learning tools at their fingertips. Some of how technology improves education:

- The Teachers can communicate with each others across the world in direct, meet the fault of their work, process it and provide their students with the best. This approach improves the practice of teaching.
- Technology gives students immediate access to a quantity of quality information which leads to learning at much quicker rates than before.
- There are resourceful, believable websites available on the Internet that both teachers and students can utilize. The internet also provides knowledge and doesn't limit students to one person's belief.
- Online education is now official and has changed the way of education.

# Conclusion

Society benefits when: the education of the average individual increases; and the individual is an educated, productive member of society. The formal education system works as an agent of society to transform man into a product of society. So to transform the formal education system, we have to transform society. Society has to realise formal education is producing a product that does not meet society's needs. So the true role of technology in education is transformation, as the agent for change and at this point communications. The proponents of technology have not gone far enough. The computer education come into view to have been taken quite seriously by many state governments and by certain private sector proposal, most of these programmes are plan to practice students for the profession. In also, the programmes are software-centric, i.e. they emphasise the learning of a specific set of software tools. There is an urgent need to demystify this technology15 and de-emphasize the learning of specific tools. A balanced generic curriculum, where computers are relegate to their unpaid place as tools, and where they extend the possibility of other subjects, is a must. The availability of appropriate software in Indian languages, and numbers, will catalyses this process.

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# PERSONALISED LEARNING STRATEGY IN OPEN AND DISTANCE EDUCATION

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#### Abstract

Today's classrooms consist of outdated teaching materials and approaches that fail to effectively educate many students. Artificial intelligence, mobile devices, social networks, and other computing technologies have the prospective to transform the way students and teachers communicate in the classroom environment. However, cooperation and investment by academic, industrial and government stakeholders are integral to revolutionize our education system into a valuable one that provides every student with an opportunity to accomplish something. This paper reviews the Perspective of Personalised learning, Shift towards Personalised learning, Personalising Education through Technologies and Salient features of Personalised learning. **Keywords:** Personalised Learning, social networking tools, user models, intelligent tutors, mobile learning and gaming

**Keywords:** Personalised Learning, social networking tools, user models, intelligent tutors, mobile learning and gaming environments.

## Introduction

The meaningful incorporation of technology in teaching and learning is consistently called for in all sectors of education. Recently it has appeared as a key ideology for achieving what has been termed as personalising learning. Personalising learning, a concept that deals with a range of contemporary best-practice approaches with an adjoined emphasis on ICT and the voice of individual learners, is becoming more ubiquitous in both general discussions, and in some countries, in policy concerning education. Personalising learning integrates the ideas of effective teaching, learning and assessment, which supports with deep learning and constructive coalition principles associated with effective teaching in higher education.

Personalised learning allows students to take control of their own learning. Each student is unique and learns in diverse ways.

Personalising learning means students:

- understand how they learn
- own and drive their learning and
- co-designers of the curriculum and their learning environment.

## **Need For Personalised Learning**

The evolution of the Knowledge Society and the Knowledge-based Economy indicate a new era for education and training. Within this framework, knowledge and skills of citizens are becoming more and more significant for both the economical strength and social cohesion of the society, and the superiority of citizens' life. The structural and functional society transformations increase the demand for major changes in Education and Training, intending at reducing the risks for knowledge gaps and social exclusion.

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An interesting social and scientific deliberate is thus continuing, on the paradigm shifts in the way that education and training are planned, organised and delivered, as well as the definition of concrete future objectives of educational systems. Typical demands include

- Personalised training designs customized to the learner's objectives, background, style and needs;
- Flexible access to lifelong learning as a persistent process, rather than a divergent event;
- Just-in-time training dissemination of information;
- New learning modules for efficient incorporation of training on workplaces;
- Cost-effective methods for meeting training needs of the globally distributed workforce. On the other hand, the rapid progression of Information and Communication Technologies

(ICT) endow with the technological tools for assisting the implementation of the new paradigm in education and training, referred to as e-learning. E-Learning takes advantage of information processing and internet technologies to provide, among others.

- Personalisation, where training programmes are customised to individual learners, based on an investigation of the learners' objectives, current status of skills and knowledge of the learners, learning style preferences of individuals, as well as constant monitoring of progress of the learners. On-line learning material can be, then, compiled to meet personal needs of individual learners, capitalizing on re-usable learning objects.
- Interactivity, where learners can experience active and situated learning through simulations of real-world events and on-line collaboration with other learners and instructors.
- Media-rich content, where educational material can present in different ways and presentation modes, and learning material can guide and systematized in such a way that it can be searched, identified and retrieved remotely from several different learners providing the right material to the right person at the right time.
- Just-in-time delivery, where technologies such as electronic media support systems can facilitate instruction delivery at the exact time and place that it is required to accomplish a certain task and wearable computers can provide real-time assistance in actual work environments.
- User-centric atmospheres, where the learner takes accountability for his/her own learning, and the instructor acts as the "guide on the side", rather than a "sage on the stage".

With this circumstance, the concept of personalised learning becomes increasingly accepted. It advocates that instruction should not be constrained by time, place or any other barriers, and should be continuously modified individual learner's requirements, abilities, preferences, background knowledge, interests, skills, etc. The personalised learning concept signifies an essential departure in educational theory and technology, from "traditional" interactive learning environments to personalised learning environments.

# **Differences'** List

Individualisation	Personalisation
Same objectives for all learners	Different objective for each learner
Applying of differenced didactic strategies to	Applying of differenced didactic strategies to promote
achieve the key competences	the personal potentiality
The educational curriculum is designed by the	The learner actively participate in the construction of
educational committee experts	his own curriculum
Develops the cognitive dimension of the	Develops the all dimensions of learner, not only the
learner	cognitive (emotional, social, life experience, etc.)
Valorisation of previous knowledge and	Valorisation of previous knowledge, competence, life
competencies, formal and non-formal	and work skill, also informal
Learner's self-direction as an accessory skill	Learner's self-direction as a fundamental skill
Teacher has a key role	Tutor has a key role

# Personalising Education through Technologies

Technological approaches for producing personalized instruction include social networking tools, user models, intelligent tutors, mobile learning, gaming environments and more.

# **Social Networking Tools**

Web-based tools such as social networking sites facilitate information sharing and learning with one's peers.

**Teacher Tube** is an educational, social video-sharing site for teachers. The user can watch, subscribe, create and share free instructional videos.

**Classtools** can create free, web-based educational games, activities and diagrams. Teachers and students can create their own tutorials, demonstrations, diagrams and animations.

**Slide share** is a place to share slideshows such as Microsoft Power Point and Apple's Keynote. Teachers and students can produce and upload slideshows that can be viewed, discussed and shared by other users.

# **User Modeling**

Programs can identify a student's competencies and knowledge over time, to understand interests, goals and characteristics that maximize one's motivation and learning.

# **Intelligent Tutors**

Computerized tutors, personalized to meet the student's inclinations, are providing personal and supportive instruction, formative feedback and encouragement to students in a assortment of subjects such as mathematics and science. These tutors, will monitor a student's attentiveness, emotion and success when answering problems, can eliminate the need for regular teacher supervision while offering hint sequences, constructive advice and elaborate instruction to boost a student's self-confidence and knowledge gained.

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ELM-ART (ELM Adaptive Remote Tutor) is a WWW-based ITS (Intelligent Tutoring System) to support learning programming in Lisp. ELM-ART is an Intelligent Learning Environment that supports example-based programming, intelligent analysis of problem solutions, and advanced testing and debugging facilities. The course materials were presented to students in lecture form (complemented with printed material) and ELM-PE was used to practice the obtained knowledge by problem-solving. ELM-ART, which is expected to be used for distance learning, provides on-line both the course materials and the problem solving support. ELM-ART can be considered as an on-line intelligent textbook with an integrated problem-solving environment. It provides all the course materials (presentations of new concepts, test, examples, and problems) in hypermedia form. ELM-ART differs from simple WWW "hyper books" in two major aspects. First, ELM-ART "knows" the material it presents to the students and supports them in learning and navigating the course material. Second, all examples and problems (which are important components of any textbook) in ELM-ART are not just a text as in other textbooks, but "live experience". Using ELM-ART, the student can investigate all examples and solve all problems on-line. For any textbook problem, ELM-ART provides the student with almost the same level of intelligent problem solving support as the original ELM-PE.

## **Mobile Learning**

Advances in personal and mobile technologies such as smart phones and tablets authorize students to walk around real-world phenomena outside the classroom setting. For example, these devices collectively with intelligent virtual tutors help students create graphical models of forces and motion, magnetism and electricity, landforms, and weather and climate in natural settings.

Desire 2 Learn Mobile - the mobile tool for Desire2Learn - a major education LMS vendor.

**INTUITEL:** The University of Reading is helping to build up a new e-learning tool, dubbed INTUITEL that delivers lessons via a mobile phone, yet offers feedback previously only available from a real-life tutor and imitates the best features of conventional teaching methods and delivers them through online gateways.

**Go Know Mobile Learning Environment** allows educators to handle student's activity such as assessment as well as data back-up via cell phone devices.

**Modo Labs Mobile Campus** Includes Courses and Registrar modules that mash-up popular Learning Management Systems (LMS) and Student Information Systems (SIS), facilitating students and faculty to access information via a single common mobile interface.

## Gaming to Promote Learning

Artificial intelligence gaming systems used for education permit students to involve themselves in game-based descriptions with 3-D characters to solve problems that contain a range of subjects. For example, microbiology classrooms use these systems to help students visualise how to find out the source of an infectious disease. The gaming systems allow students to express their knowledge and skills in real time, tracking how they think creatively, critically, and systemically.

# Conclusion

Personalised Learning technology is one of the key solutions to face the challenges in open and distance education. Moving to a personalised learning system powered by digital learning has the potential to transform our education system. With a focus on student growth and individual learning goals, each student has the potential to achieve. Although there are challenges that stand in the way of this change, there are concrete steps that applicants can take to move toward this reality.

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# "ESSENTIALITY OF QUALITY IN EDUCATION SYSTEM IN PRESENT SCENARIO"

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#### Abstract

The 21<sup>st</sup> century is facing a conflict situation about quality in the education system. According to many HR professionals, so many educational institutions are facing quality concern problems. The World Declaration on Education for All-1990 was a strong opinion about the requirement about providing quality education for all children, youth and adults. The learning skills, subject knowledge, ethics, moral principles and thoughts that learning and teaching encourage must reflect and react to the needs and expectations of individuals, the global population and the world of work. Encouraging critical thinking and fostering the aspiration and ability for lifelong learning that adapts and shifts in local, national and global dynamics also. This paper has discussed the essentiality of quality education in emerging Indian context and need of skill development education for future of India. **Keywords:** conflict situation, quality education, requirement, critical thinking,

## Introduction

The World announcement on Education for All (1990) was clear-cut about the obligation of providing education for all children, adolescence and adults that is responsive to their needs and related to their lives. This declaration was covered the way for the idea of quality expressed in regarding need-based criteria of quality education. Addressing the crisis in quality learning requires redefining what education structure are for. The knowledge, skills, values and attitudes that learning and teaching support must reflect and respond to the needs and expectations of individuals, countries, the global population and the world of the present day. Not only teaching skills like math and reading but encourage critical thoughts and development the aspiration and capacity for lifelong learning that adapts and shifts in local, national and global dynamics.

Quality education is not an easy concept to succeed. At a time when we are discussing a quality education for all our learners, it is important to take time to understand this. According to the Education for All: Global Monitoring Report 2005 - The Quality very important, two principles characterise most attempts to define quality in education: the first identify learner's cognitive development as the major open objective of all education systems. The second emphasises education's role in encourage values and attitudes of responsible nationality and in development creative and emotional development.

## Importance of Quality in Education

The Education and educational quality can mean diverse things to different people, depending on their point of view, role and situation and, in part because of this, quality is

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disreputably difficult to assess. However, the goal of improving educational quality is agreed by all and stimulated further by the recent. If education helps our children succeed outside of school, in having good careers and happy lives. Children with quality a education in the early years get a better start in life. We push for more investment could be made in early childhood education and educators who can take care of our children. If the children think critically in organise to solve complex problems, communicating effectively, working collaboratively and learning how to learn. Having these skills will help our children to become happy individuals in the 21st century. If the children learn to deal with a collaborative and supportive system that helps them grow as professionals and allows them time to beat the love of learning into children.

# Improving the Quality of Education Curriculum

The present Telangana state primary school curriculum comprises a mix of areas of knowledge that offer opportunities for the all round development of individual pupils. The curriculum areas include English, mathematics, environmental science social science, and higher classes with this include of languages, physical education, expressive arts (drama, art and design, music, movement) and personal and social development etc. All these areas are covering the multiple intelligences identified by leading educational psychologists (Gardner, 1983). The current curriculum also recognises information and computer technology (ICT) skills as tools which can be used to access knowledge in all the other areas of the curriculum. It is essential that ICT skills become included in the specific areas of the curriculum.

# High-quality curriculum

- Values each child and holds that every child matters equally
- Include high-quality content
- Up-to-date and relevant matter
- Suitably demanding subjects according to present day
- properly sequenced curriculum
- Balance maintained
- Integrated all areas
- Is well-organised and structured



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## Syllabus Structure

The primary school syllabus encourages a developmental approach as they state the learning outcomes in each subject with a learner-centred center. Syllabus experts need to work on further assessing the learning outcomes that can be reaching within the given time border to allow time for meaningful learning to take place and to avoid unnecessary stress on teachers and learners. The basic principle of a subject syllabus is to provide a reasonable and reliable programme of learning, which takes account of the way young people learn, and which has the flexibility to adapt to local conditions and students needs, and to be over time.

## A Syllabus Should Ensure that

- A planned and progressive of learning activities is constructed to develop understanding
- There should be consistent with the way children's cognitive, emotional and physical abilities development
- There should be reliability of approach between subject areas, and with the values and principles that have been articulate
- Syllabus should be maintained inter-disciplinary links are established between the subject areas
- The development of the academic standards under in national curricular aims were integrated into subject areas

# Supporting Teachers and Schools in being Innovative and Creative

Education systems and authorities should teachers and schools in their efforts to understand and implement the curriculum. A good quality curriculum may need teaching approaches to be more innovative than they might typically be in a particular context – for example, to encourage students to question, discuss and debate. In the broader sense, a good quality syllabus may need an education system to change its meaning of what represent a 'good' teacher, which may, in turn have consequences for recruitment condition, teacher professional development, remuneration, incentive and promotion schemes, and the observing of teaching efficiency through, for example, assessment systems. Similarly, an education system should support principals and head teachers to create school cultures which reflect the principles and practices of the 'good quality' syllabus.

## Providing the sources to implement the curriculum successfully

A good quality curriculum requires equipment. Education authorities should ensure that these are available and that they were distributed equitably. It may frequently mean allocating resources unequally. For example, additional resourcing may be necessary to provide compensatory education for particular groups in society who might be disadvantaged on account of history, disability, gender, their socio-economic status, their society or cultural background, or where they live whether in urban or deeply rural environments.

# Conclusion

Quality education is a right for all. A good quality education is one that gives all learners with abilities they require to become economically productive, develop sustainable livelihoods, give to peaceful and democratic societies and enhance individual well-being. Quality learning is not only essential for meeting people's basic needs but is also primary in the conditions for universal peace and sustainable development. All young people need to learn in active, collaborative and self-directed ways to flourish and contribute to their communities. Along with the fundamentals, they need to gain attitudes, values and skills as well as information. Their teachers, peers, communities, curriculum and learning resources must help arrange them to recognise and respect human rights worldwide and to value global well-being, as well as provide them with the relevant skills and competencies for 21<sup>st</sup>-century employment opportunities. To achieve, it is not enough to measure what learners learn: it is essential to target the classroom experiences that fundamentally shape student learning, and emphasise the range of skills required for lifelong well-being and societal cohesion.

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# AN ECONOMIC ANALYSIS OF EDUCATIONAL GAP TO MARGINALIZED GROUPS IN INDIA

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#### Abstract

The story of Indian education is one of quantitative progress but conspicuous failures in quality. After six decades, India has made notable improvement in the gross and net enrolment ratio and achieved universal enrolment in lower primary education. School attendance improved substantially since the mid-1990 especially among girls. Hence, this research paper mainly focus on to analyse the rural net attendance ratio by social groups and main religious groups in India, to review of policies and programmes related to school education and to analyse the proportion dalits children enrolment in schools. This study use of secondary data from National Sample Survey Organization, Ministry of Human Resource Development Reports, India Rural Development Report and national Family Health Survey. Primarily major findings of this study about 28 per cent of rural primary school age children attend private schools. Every 100 children enroll fist standard about 30 drop out before reaching class V and more than 40 before reaching class VIII. This study highlights to Attendance of public school teacher is low and even teachers who attend often do not teach. Finally, provisionally given recommendations of this study on priority give to girls education, skill development and financial assistance for livelihood support to most vulnerable people, Government of India should be taken an action to ensure to the quality of education given to all the sector of the society and Governments must to be establishing to new skill based training center for Girls in all regions of the country.

Keywords: Enrolment, Literacy, Dalits and Education.

## Introduction

India's education policies have largely been geared towards increasing school enrolment. Universal elementary education as enshrined in the Constitution's Directive Principles of State Policy. But, while they urged the government to provided free and compulsory education to all children until age 14, the Directive Principles are not binding. In 1976, education was transferred from the state list to the concurrent list through a Constitutional amendment, with the objective of promoting meaningful educational partnerships between the central and state government. The National Policy on Education (NPE) in 1986 was an important landmark with its emphasis on universal enrolment in elementary education. More recently, universal elementary education was reinforced with the 86<sup>th</sup> Constitutional Amendment 2002 and the Right to Free and Compulsory Education Act (RTE) 2009, which recognized elementary education as a fundamental right. Since the 1980's the Government of India has initiated a number of programme like operation blackboard, district primary education programme, Sarva Shiksha Abhiyan and mid-day meal scheme to achieve enrollment in schools.

Central and state government expenditure on education, which approached 3.5 per cent of GDP in the 2000's backed these policies and schemes, although spending continues to fall short of the 6 per cent of GDP recommended by the Kothari Commission in 1966 and again by the Central Advisory Board of Education in 2006. While central government expenditure has increased, state government spending which still accounts for 80 per cent of total public

expenditure on education increased at a slower pace. Spending on education still varies greatly by state.

# **Review of Literature**

The study conducted by Prof. Jensen (2012) government improved job opportunities and increased returns on higher secondary education may have driven higher female attendance, as labour market opportunities have been found to reduce the probability of women getting married or having children young as they opt for further schooling, post-school training or join the labour market. The study by Prof. Tilak (2006) although the government offers free elementary education and a few other incentives, students in rural government schools must still pay for admission, stationery and books, travel, tuition, examinations and library privileges, which may lead to higher dropout rates among disadvantaged social and religious groups.

World Bank sponsored research work done by Dr. Nambissan (2010) found that dalits and ST's are sometimes discriminated against in schools and, coupled with inadequate parental support in learning, leg behind, lose motivation and have higher dropout rates.

# **Objectives of the Study**

- 1. To analyse the rural net attendance ratio by social groups and main religious groups in India.
- 2. To review of policies and programmes related to school education.
- 3. To analyse the proportion dalits children enrolment in schools.

# Sources of Data

This study makes use of secondary data relating to sex-wise rural net attendance ratio, rural net attendance ratio by social groups and main religious groups, various government welfare schemes in school education and proportion of children of attending school level education by religion from National Sample Survey Organization, Ministry of Human Resource Development Reports, India Rural Development Report and National Family Health Survey.

# Progress of School Education in Rural India

The story of Indian education is one of quantitative progress but conspicuous failures in quality. After six decades, India has mode notable improvements in the gross and net enrolment ratio, and achieved universal enrolment in lower primary education. But universal enrolled for upper primary and other higher levels of education is still far away.

Net Attendance Ratio (NAR), seen a better indicator of children going to school, has improved substantially between the mid 1990's and late 2000's although school attendance is still far from universal in rural India. School Attendance of girls rose sharply during this period, resulting in reduced gender disparity at the elementary level. Although wide gender inequalities persist at higher levels, female attendance at the secondary and higher secondary school level has also increased significantly since 1995-1996.

Class	1995-1996			2014-2015			Increase (in Percent)		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
I-V	56	68	63	77	79	78	38	16	24
VI-VIII	32	44	39	56	55	55	75	25	41
IX-X	17	26	22	39	48	44	129	85	100
XI-XII	8	13	11	26	31	29	225	138	164

Table - 1: Sex-wise Rural Net Attendance Ratio (in per cent)

Source: MHRD Various Annual Reports

Some states have successfully used incentives to increase female students' attendance at higher levels. For example, Bihar and Uttarakhand provide grants for bicycles to incentivize girls aged 14 and above. In Tamil Nadu provide bicycle to all the students after completion of upper secondary education and gives laptop to higher secondary students. In this welfare programme has resulted shows 40 per cent increase to girl child enrolment in class IX, and a 10 per cent increase in the number of girls appearing for the class X board examination. Also, in 2008 the central government introduced a pilot conditional cash transfer scheme in 11 blocks to provide a significant cash transfer to families of girls that receive immunization, remain in school at least until class VIII and delay marriage until the age of 18. Many states also have similar schemes for instance, Delhi and Haryana provide transfers to girls through 'ladli' schemes conditional on completing class X. Tamil Nadu implemented special cash incentives to students has been given in the state from 2011-12. Under this scheme, Rs. 1500 per student those studying in X and XI standard and Rs. 2000 per student studying in XII standard in Government and Private aided schools. This is resulted that reduced to dropouts in all levels of education.

Social	Primary		Upper Primary		Secon	dary	Higher Secondary		
Group	Males	Females	Males	Females	Males	Females	Males	Females	
ST	82.4	78.7	58.8	54.9	25.5	25.9	12.7	8.5	
SC	81.5	77.4	60.7	55.4	33.3	30.0	20.6	16.4	
OBC	83.3	81.0	62.0	55.7	42.8	35.7	26.4	19.9	
Others	85.6	83.8	67.2	67.1	47.1	43.4	29.4	24.3	
All	83.3	80.5	62.5	58.1	40.0	35.0	25.0	20.0	
Hindus	84.2	81.5	64.5	60.0	41.7	36.9	26.2	19.9	
Muslims	78.7	74.9	48.7	45.3	26.0	23.5	10.9	11.3	
Christians	79.1	78.8	63.9	70.9	49.4	42.4	32.5	36.5	
Sikhs	85.7	77.5	63.3	57.3	40.8	39.4	24.6	20.9	

Table - 2: Rural Net Attendance Ratio by Social Groups and Main Religious Groups

**Source:** MHRD Various Annual Reports and Calculated by the NSSO 64<sup>th</sup> Round.

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But wide attendance gaps persist across socio-economic groups. Although attendance among the socially disadvantaged groups has increased at the elementary school level, attendance rates of SC's and ST's diverge from that of other social groups at higher levels. Among the main religious group, rural Muslims have lowest attendance rates at all levels (IHDR 2001). Muslim children also make up the highest proportion of out-of-school children of all social and religious groups. The high dropout rates or low completion rates of rural school children is a major concern. Out of every 100 children who enroll in class I, about 30 per cent drop out before reaching class V and more than 40 before reaching class VIII. Fewer girls drop out of primary school than boys, but the reverse is true at the upper primary level. This is probably because girls in the upper primary age group are required to help with household chores.

The high dropout rates among children from socially disadvantaged communities are even more alarming. Almost 45 per cent of SC children and 55 per cent of ST children dropout of school before completing class VIII and this proportion increases to 60 per cent and 70 per cent, respectively, before reaching class X.

# An Economic Review of Policies and Programmes

Many government initiatives have failed to yield satisfactory results because they rely too heavily on inputs rather than on identifying and focusing on the factors that determine learning outcomes. This section briefly evaluates the main government schemes and polices.

# **Right to Education Act**

The Right of Children to Free and Compulsory Education (RTE) Act 2009, is a landmark initiative that aims to universalize education for children between 6 and 14 years by improving school infrastructure and the number and quality of teachers. The RTE also aims to address social inequalities by reserving 25 per cent of private school seats for disadvantaged students, including Dalits, Tribes and low income groups. The RTE expects students to be placed in age appropriate classes, without considering individual abilities. Its provisions for automatic promotions until class VIII, without examinations and without completing the syllabus within a defined time period, may actually result in children falling further behind as they move to higher classes.

The RTE mandates School Management Committees (SMCs), also called Village Education Committees (VECs) in some states, to monitor schools' performance and create an annual school development plan. Largely comprised of locally elected representatives and parents, these bodies are supposed to enhance school accountability and bring efficiency at the grassroots level. But with very little control over school expenditure, little decision-making power and low capacity, they have not been very successful.

## Sarva Shiksha Abhiyan (SSA)

A flagship government programme, SSA has operated since 2001 to ensure free and compulsory education to children in the 6 to 14 years age group. SSA primarily aims to strengthen existing school infrastructure and bridge gender and social gaps in elementary education.

Between 2002 and 2009, primary school education improved substantially in terms of infrastructure, access, and enrolment. Primary school coverage improved across all states, although in the upper primary level, coverage decreased in Bihar, Haryana, and Rajasthan. Shortage of funds, delays in receiving them, and poor monitoring and supervision are constraints in the scheme's implementation. After RTE was implemented, SSA was modified and started operating as a vehicle of the implementation of RTE, with funds for setting up new schools, constructing classrooms, providing basic facilities in schools, and recruiting additional teachers. Since 2010, the share of schools with infrastructure such as boundary walls, functioning toilets, separate toilets for girls and libraries has increased, and schools have gradually been meeting the pupil-teacher ratio norms.

## Mid-Day Meal (MDM) Scheme

The MDM scheme is an extension of the National Programme of Nutritional Support to Primary Education, launched as a centrally sponsored scheme in 1995. Although some states initially served only dry rations, by 2005 all states provided cooked and balanced lunches to primary school students. By 2008 mid-day meal scheme was extended to elementary level in government and government-aided school. In the case of Tamil Nadu in MDM all government and aided schools are providing food to primary, secondary and higher secondary school level. This scheme introduced by former chief minister of Tamil Nadu Mr. K. Kamaraj and Mr. M. G. Ramachandran bring this scheme to under government funded scheme.

MDM has the potential to overcome nutritional challenges. A common critique has been that the food served is deficient in key nutrients in many places, but most states have made progress on this front. For instance, Rajasthan, which served mainly wheat boiled with salt or sugar it is called 'ghoogri' in 2002, now provides balanced meal with fruit twice a week and even poorer states like Odisha serve eggs twice a week. In Madhya Pradesh the MDM has been found to improve the nutritional intake of children with the daily nutrient intake increasing by between 50 and 100 per cent which helped reduce protein, calorie and iron deficiency. One concern that remains is that infrastructure constraints persist apart from Tamil Nadu and Kerala, schools in most states lack a clean source of water, kitchen sheds and storerooms, making it difficult to ensure that the food served are hygienic. There are concerns relating to pilferage and adulteration of the food, and most states do not follow PDS guidelines, which sometimes compromises the quality of food and threatens the health and safety of children.

# Rashtriya Madhyamik Shiksha Abhiyan (RMSA)

As compared to elementary education, India has shown little progress in secondary education. The regional, gender and social disparity in access and participation are even greater than at the elementary school level. Against this backdrop, the RMSA scheme was launched in 2009 to make quality secondary education accessible and affordable to all children. The scheme aimed to raise gross secondary school enrolment from 52 per cent in 2005-2006 to 75 per cent within five years of implementation and universal access by 2017.

Under RMSA over 9,500 new schools were approved nearly 60,000 teachers were added and all teacher received in-service training. But so far the achievements have fallen far short of the goals. Similar to RTE, the RMSA is not outcome focused and the scheme lacks effective assessment mechanisms. It also does not address the variation among secondary school standards across states or create uniform, quality education in India. Secondary level learning outcomes, therefore, remain very poor.

# **Enrolment and Participation in Educational Institutions**

The proportions of children on enroll or actually attending educational institutions is a good measure of current participation in and utilization of deduction opportunities. Table -3 presents a little more detailed account of levels of participation in educational opportunities. Overall, seven out of 10 children in the age group of 6-18 attended schools during the school year 2006. As expected, the level of participation in schooling was higher at lower ages than at upper ages. For instance, while eight out of 10 children attended schools in the age group of 6-14, the corresponding ratio for age 15-18 war roughly 5:10. This implied a higher incidence of discontinuation or dropping out from school at the elementary level.

Age (in years)	All	Muslims			Hindus			
		OBC's	Others	All	SC's	SC's OBC's	Othors	All
(III years)		Musl	Muslims	50 5	ODC 5	Others	Hindus	
6-10	76.5	61.6	66.6	66.1	75.4	78.2	87.1	78.4
11-14	80.0	64.6	67.9	67.2	77.0	83.3	91.5	82.3
15-18	47.4	33.4	34.1	34.1	41.4	49.6	64.3	49.6

Table - 3 Proportion of Children Attending School

Source: National Family Health Survey, 2016. IIPS, Mumbai

At one extreme are the children of Hindu-other, of whom nine out of 10 in the age group of 6-14 attended schools, indicating that they are on the verge of attaining universal elementary education. On the other extreme stand the children of Muslim OBC who are least likely to attend school in the relevant age group, although even the children of Muslim other are not better-off as compared to the SCs, leave alone the Hindu OBC or Hindu other. This calculus, however, takes a heavy toll among Muslims are compared to others.

## **Recommendations of This Study**

The following recommendations are made on a pragmatic basis and with a view to provide a new base-line of action.

- 1. Priority to give girls education, skill development and financial assistance for livelihood support to most vulnerable people.
- There is need for revision in the prevalent unit cost of scholarships and doing away norms and eligibility criteria (marks, domicile, income and caster certificates and two child norms) making them uniform scheme to all the marginalized people.
- 3. Increase to the awareness about the interventions cut across beneficiaries and service providers about all government scheme related to education sector.
- 4. Focus must be given on small towns, rural areas, remote villages and backward regions where Gross Enrolment in Higher Education is very low compare to the urban area.
- 5. Government of India should be taken an action to ensure to the quality of education given to all the sector of the society.
- 6. Governments must to be establishing to new skill based training center for Girls in all regions of the country.

## Conclusion

The quality of school education is central to the progress of a nation. It has several benefits other than labour market productivity and the income it generates. It is though formal education that societies pass on knowledge and expertise from one generation to the next. Educated population offers a more valuable human capital base to the economy. A developed economy has the maximum concentration of jobs in the tertiary sector that requires highly skilled work force which has expertise in specific fields. It is need based on quality of school education. Strong education system help to more social benefits of through education include a more educated and better informed electorate, lower rates of crime and violence, lower rates of poverty, better health and nutrition, and generally a more smoothly functioning society. Formal education is instrumental in changing the perspectives and mindsets of people. It helps eradicate superstitions and augment scientific temper. It strengthens networks and institutions necessary for individual and group interactions. The immediate need is to address crucial problems in our education systems such as teacher absenteeism, teacher – pupil ratios, inadequate teaching material and infrastructural facilities, particularly in rural areas.

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# ICT (INFORMATION AND COMMUNICATION TECHNOLOGY) LITERACY AMONG HIGH SCHOOL STUDENTS

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#### Abstract

#### "High School teachers to be trained in IT" News, The Hindu- April 30, 2017

The research study focused on ICT (Information and Communication Technology) Literacy among High school students. Normative Survey method was employed to collect the data through questionnaire by adopting simple random sampling technique. The questionnaire was constructed and validated by the researchers and administered on high school students. The sample size of this study comprises 488 school students, among them 262 were boys and 226 were girls studying in various districts of Tamil Nadu. To fulfill the objective of the study is to assess the ICT literacy of high school Students and to find the ICT Literacy and its dimension such as Computer, Multimedia and Social media of High school Students based on Gender, Locality, and Type of management of school. The results indicate that, the ICT Literacy of High school Students is moderate in nature. It is also found that there is a significant difference in ICT Literacy and its dimensions of High school Students with respect to Gender, Locality of the school and Type of management of school.

Keywords: ICT; Multimedia; Social media; Pedagogy, Skills.

## Introduction

This paper synthesizes the research literature on Information Communication Technology (ICT) Literacy of High school students in various districts of Tamil Nadu, with a particular emphasis on improving the quality of subject teaching and learning. We focus on the internal factors of influence on students use, or lack of use, of technology in the classroom. Our discussion attends to perceptions and beliefs about ICT and their motivating effects, technological literacy and confidence levels, pedagogical expertise related to technology use, and the role of teacher education. These factors are discussed in light of significant infrastructure and other external issues. We conclude by drawing out a number of pedagogical implications for initial teacher education and professional development to bring schooling within developing contexts into the 21st century.

## Statement of the problem

ICT (Information and Communication Technology) Literacy among High School Students.

# **Review of related Literature**

Researchers have been conducted on an assessment of computer ICT skills among secondary school teachers in ota ogun state (Oyeronke Adebayo etal 2013), assessment of ICT literacy among high school students (Uma Maheswari etal 2010). Research studies were conducted on Information and computer Literacy of High school students (Milan Kubiatko 2007), A study of teacher attitudes towards use of ICT in classroom of secondary schools of sabarkantha districts (Dr. K.S Deden). Teachers' attitudes and levels of technology use in classroom: the case of Jordan schools (Naser Jaml etal 2010). Only few studies have been conducted on ICT Literacy at the secondary level. Hence the present study focuses on ICT (Information and Communication Technology) Literacy among High school students.

# Operational Definition

# **ICT Literacy**

The ability to use digital technology, communication tools, and/or networks to define, access, manage, integrate, evaluate, create and communicate information ethically and legally in order to function in a knowledge society.

# Need of the Study

Over the last couple of years, researchers have made great efforts to analyse the use of new media in schools. As part of this line of research, several aspects of classroom media use have been investigated, including, for instance: the identification of obstacles to the integration of information and communication technology (ICT) in education, the use of laptops and internet in classrooms, the impact of ICT on the teachers, etc. (Ehmke et al., 2004, Schaumburg, 2002, Smeets et al., 1999). Another focus of attention has been the identification of factors that determine the successful and sustainable use of new media in schools, as well as the derivation and implementation of long-term measures. Thus far, three types of relevant factors have been identified: the technical equipment available in schools, the general conditions of the school organization, and the characteristics of teachers.

Regarding technical equipment, obstacles for the integration of new technologies in the classroom can occur, because of schools' insufficient availability of said equipment (Pelgrum, 2001), the location of devices (Becker, 2000), and insufficient access to computer laboratories (Schaumburg, 2002). Conditions related to school organization comprise aspects such as the cooperative culture of the school (i.e., formal and informal exchange of information between teachers and sections), and the compatibility of innovation with current curricula. Further, the school principal acting as a promoter for the use on new media plays an important role, as do offers for vocational teachers' training (Schaumburg, 2002, Scholl and Prasse, 2000). Finally, the students' Literacy towards ICT plays an important role.

# Objectives

- To Construct ICT Literacy among High school students scale for study.
- To assess the level of ICT Literacy among High school students.
- To compare ICT Literacy among High school students with respect to Gender.
- To compare ICT Literacy among High school students with respect to Locality of the school.
- To compare ICT Literacy among High school students with respect to Type of management.

# Hypotheses

# HO1

• There is no significant difference in the ICT Literacy among High school students with respect to Gender.

# HO2

• There is no significant difference in the ICT Literacy among High school students with respect to Locality of the school.

# HO3

• There is no significant difference in the ICT Literacy among High school students with respect to Type of management.

# **Pilot Study**

In order to validate and to find out the appropriateness of the tool pilot study was conducted on a sample size of 50. Among them 25 were Boys and 25 were Girls students of standard IX and X. The final tool was constructed after removing 5 statements (based on Item total correlation).

## Tool

ICT Literacy questionnaire on a three point scale (Yes, Often, No), constructed and validated by the researchers was used in this study. Reliability of the tool is found to be (split-half method) 0.94 and validity 0.96. Tool has 25 statements all are positive.

## Method

Normative survey method is adopted for this study. Normative survey is cross sectional, gathers data from a relatively large number of cases, concerned not with the characteristics of individuals but with generalized statistics of the whole population or a representative sample.

## Sample Technique

The sample is selected through simple random sampling technique. A total of 3 Government, 4 Government Aided, 3 Corporation and 5 Private schools are selected. All the IX and X standard students' are taken as the sample for the present study. Hence the sample comprises of 488 High school students' (both boys & girls) of Chennai, Thiruvallur, Kancheepuram and Thanjavur districts.

Variable	Level	Ν	Percentage (%)						
ICT Literacy	Low	87	18%						
	Moderate	308	63%						
	High	93	19%						

Table - 1 Level of ICT Literacy among High school students

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Results of above table indicates that 18%, 63%, 19% of the total sample have low, moderate, low ICT Literacy among High school students respectively. Hence, inferred that the level of ICT Literacy among High school students is moderate (63%) in nature.



Figure - 1 Level of ICT Literacy among High school students

# Analysis and Interpretation

In order to study the significant difference in score of ICT Literacy among High school students scale with regarded to Gender, Locality of the school and Type of management 't' test and 'F' test was employed

# HO1

• There is no significant difference in the ICT Literacy among High school students with respect to Gender.

ICT Literacy	Gender	Ν	Mean	Std. Deviation	t Value	p Value	
Computer	Boys	262	11.89	4.29	2 6 4 1	0.000**	
	Girls	226	10.42	4.645	3.641	0.000	
Multimedia	Boys	262	8.43	3.88	2 077	0.002**	
	Girls	226	7.3	4.542	2.977	0.005	
Cocial modia	Boys	262	7.85	3.584	2 1 9 0	0.002**	
Social media	Girls	226	6.77	3.906	5.169	0.002***	
Overall	Boys	262	28.17	10.229	2 720	0.000**	
	Girls	226	24.48	11.63	3.729	0.000***	

 Table - 2 The Data of Mean, S.D., and t value of ICT Literacy among High school students

 With respect to Gender

Note: \*\*Indicates that 0.01 level Significance.

From the table 2, calculated 't' value for overall ICT literacy among high school students is greater than the table value and it is statistically significant at 0.01 level. Hence, the stated null

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hypothesis is rejected. For all the dimensions such as, Computer, Multimedia and Social media calculated 't' values are greater than the table value and it is statistically significant at 0.01 level.

The results inferred that, compare to the mean score Boys have more ICT literacy compared to girls.

# HO2

• There is no significant difference in the ICT Literacy among High school students with respect to Locality of the school.

			-	5					
ICT Literacy	Groups (N)	Mean (S.D)		Sum of Squares	df	Mean Square	F	Sig.	Scheff
	Urban (247)	11.06(4.68)	Between Groups	192.724	2	96.362			
Computer	Rural (108)	10.4(4.63)	Within Groups	9729.37	485	20.061	4.8	0.009**	S.U & R
	Semi – urban (133)	12.14(3.91)	Total	9922.1	487				
	urban (247)	8.13(4.25)	Between Groups	127.53	2	63.765			
Multimedia	Rural (108)	6.95(4.26)	Within Groups	8598.13	485	17.728	3.6	0.028*	SU & R
	Semi – urban (133)	8.27(4.08)	Total	8725.66	487				
	Urban (247)	7.41(3.65)	Between Groups	173.459	2	86.729			
Social media	Rural (108)	6.34(3.79)	Within Groups	6753.02	485	13.924	6.23	0.002**	U&R
	Semi - urban (133)	8.04(3.81)	Total	6926.47	487				5.0 & K
Overall	Urban (247)	26.6(10.95)	Between Groups	1357.82	2	678.91			
	Rural (108)	23.69(11.48)	Within Groups	58035.4	485	119.66	5.67	0.004**	S.U & R
	Semi – urban (133)	28.45(10.45)	Total	59393.2	487				

# Table - 3 The Data of Mean, S.D., and F value of ICT Literacy among High school students With respect to Locality of the school

*Note:* \*\* Indicates that 0.01 level Significant, \*Indicates that 0.05 level Significance.

From the table 3, calculated 'F' value for overall ICT literacy among high school students is greater than the table value and it is statistically significant at 0.01 level. Hence, the stated null hypothesis is rejected. For the dimensions such as, Computer and Social media calculated 'F' values are greater than the table value and it is statistically significant at 0.01 level. For other dimension Multimedia calculated 'F' value is greater than the table value and it is statistically

significant at 0.05 level. The results inferred that, compare to the mean score students who are studying in Semi-urban area school possess more ICT literacy compared to other counter parts.

# HO3

• There is no significant difference in the ICT Literacy among High school students with respect to Type of management.

								[	
Literacy	Groups (N)	(S.D)		Sum of Squares	df	Square	F	Sig.	Scheff
Computer	Government	12.14	Between	667 265	2	222.46			
	(133)	(3.91)	Groups	007.303	5	222.40			
	Government	12.35	Within Groups	9254.73	484	19.121	11.6	0.000**	G & C
	Aided (132)	(4.68)							
	Corporation	9.68					11.0	0.000	GA & C
	(150)	(4.6)	Total	9922.1	487				
	Princeto (72)	10.58							
	1 11vate (73)	(4.07)							
	Government	8.27	Between Groups	218.293	3	72 764	4.14	0.006*	GA & C
	(133)	(4.08)				72.704			
	Government	8.72		8507.37	484	17.577			
Multimedia	Aided (132)	(4.39)	Within						
Mutumedia	Corporation	7.3	Groups						
	(150)	(4.32)							
	Private (73)	7.01	Total	8725.66	487				
	1 IIvate (73)	(3.69)							
	Government	8.04	Between Groups	278.15	3	92.717	6.75	0.000**	G & C GA & C
	(133)	(3.81)							
	Government	8.04	Within Groups	6648.32	484	13.736			
Social	Aided (132)	(3.95)							
media	Corporation	6.48	Total	6926.47	487				
	(150)	(3.49)							
	Private (73)	6.62							
	Tilvate (75)	(3.45)							
Overall	Government	28.45	Between	3172.56	3	1057.5			G&C
	(133)	(10.45)	Groups						
	Government	29.11	Within	56220.6	484	116 16			
	Aided (132)	(11.6)	Groups	00220.0	101	110.10	91	0.000**	GA &C
	Corporation	23.46		59393.2	487		7.1	0.000	GA & P
	(150)	(10.74)	Total						
	Private (73)	24.21	Total						
		(9.83)							

 Table - 4 The Data of Mean, S.D., and F value of ICT Literacy among High school students

 With respect to Type of Management

Note:\*\*Indicates that 0.01 level Significance.

From the table 4, calculated 'F' value for overall ICT literacy among high school students is greater than the table value and it is statistically significant at 0.01 level. Hence, the stated null

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hypothesis is rejected. For the dimensions such as, Computer and Social media calculated 'F' values are greater than the table value and it is statistically significant at 0.01 level. For other dimension Multimedia calculated 'F' value is greater than the table value and it is statistically significant at 0.05 level. The results inferred that, compare to the mean score students who are studying Government Aided school possess more ICT literacy compared to other counter parts.

# Findings of the study

- The level of ICT Literacy among High school students is moderate in nature.
- Boys and Girls students differ significantly in their ICT Literacy.
- High school students of Rural and Urban schools differ significantly in their ICT Literacy.
- High school students of Government, Government Aided, Corporation and Private schools differ significantly in their ICT Literacy.

# Suggestions and Recommendations

- The level of ICT infrastructure in schools needs to be improved. Improvements in ICT infrastructure will need to be supported by the introduction of a national ICT technical support and maintenance system for schools. Schools also need to be provided with the capacity to regularly upgrade their own ICT infrastructure.
- There needs to be an increased emphasis on the application of ICT in teaching and learning in teacher- education at pre-service. Induction and continuing professional development stages. It is recommended that teacher education departments in third-level colleges should provide student teachers with the skills necessary to effectively use ICT in teaching and foster in them a culture of using ICT in their work.
- Schools and teachers should regularly review the use of ICT in their work. In particular, they should strive to ensure greater integration of ICT within teaching and learning activities in classrooms and other settings.

# Conclusion

The present investigation is on ICT Literacy among High school students. The findings of the study reveal that the high school student ICT Literacy level is moderate. ICT in pedagogical work with students and colleagues are the kind of attitudes that seem to facilitate teachers' use of ICT in education, whilst general positive attitudes to ICT in education do not seem to have much of an impact.

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# QUALITY EDUCATION FOR TEACHING ENGLISH LANGUAGE THROUGH DIRECT METHOD AND BI-LINGUAL METHOD

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#### Abstract

Language has got very important value in the present day. Language is very unique in its own kind. It has uses and them to be used in our society. It is very specific importance of communication. It is to be studied in an expensive manner that everyone may come to use it easily. The two methods are very major methods in English language. It has very unique differences its need own kind. This study shows how the language is significant for the learner to speak and understand. This study shows the various ways of comprehending the language in a simple way. The Bi-lingual has the higher average then the direct method. It is revealed that the study has undertaken in the rural as well as the urban.

## Introduction

The history of language teaching in India as we know has a long tradition. Memorization of vocabulary and translation of sentences often formed the major part of such learning process in the past. Ancient language such as Sanskrit and pali were Mastered in India through the process of Memorization of text. It has very common un understanding to develop one's own skill. It can be possible for everyone to develop in the method of bi-lingual method and direct method. It can make everything useful to each and everyone for developing their understanding and requirements.

#### What is Language?

Language is system that consists of the development acquisition, maintenance and use of complex system of communication particularly the human ability to do so; and a language is any specific example such a system.

A language is a means of communication. What we feel or what we know, we have to convey the same to other. In order to convey we know or we feel, we need at tool. That tool is a language. There are many language in the world. One among them is English. The language English has been spread to various countries by the British people in the form of colonisation.

## What is Method?

In English language teaching, three are Many methods approaches and techniques the term method includes the selection and gradation of material to be taught. As in the words of M.F. Mackey "A Method determines to be taught. Hence, the meaning and form are conveyed and what is to be done to make the use of the language unconscious.

Chamber's Dictionary describes method as "more or rules of accomplishing an end:

Orderly procedure manner of performances" so, Method directly deals with a teacher's manner of performance and the mode he adopts in accomplishing his task and hence, is a means to an end. It assists in reaching out to pupils in a manner that satiles their intellectual pursuit and hence is an index of teacher effectiveness.

The term 'method' is very ambiguous, and refers to the overall plan for the orderly presentations of language material no part of which contradicts and all of which is based on selected approach and procedure.

A method is includes three components viz-Approach, Design & procedure the subcomponents of which are shown in the following.

Approach, Design, procedure. An Approach is concerned with the theory of the nature of language and language learning.

## The Bi-Lingual Method

The method was developed by Dr. C. J. Dodson. As the name suggests, the method makes use of two language. The method tongue and the target language. Hence, this can be considered as a combination of the direct method and the grammar translation method. Selection, Garadation, presentation and Repetition' are the four cardinal principles of all language teaching methodology. This method has all the four principles in it.

The language According to him a new method should have the following features as....

- 1) It must be simple
- 2) It must strike a balance between the spoken and the written word, accuracy and fluency.
- 3) Constant revision of what is taught and learnt
- 4) A new method must of for a new approach to the application of translation work
- 5) The method must be sufficiently flexible to cope with various class room conditions and the pupils specific and general abilities.

The aims of this method as stated by yardi are to make the pupil fluent and accurate in the spoken and written words and to prepare the pupil in such a manner that he can achieve true bilingualism.

The method is not an independent new method with new concepts and models. It is in fact, a happy synthesis of the best principles and features present in the other methods. It has modified the principles and feature present in the other methods. It has modified the principles of other methods to over comes the objections and criticism and to suit the objectives of the second language learning to day.

## Aim of the Bilingual Method

The aims of the Bilingual Method are as follows.

- Help the learner to speak fluently and accurately in the target language.
- Help the learner to write fluently and accurately in the target language.
- To prepare the learner in such a manner that he can achieve true bilingualism.

# Principles of the Bilingual Method

- The meaning of sentences and words of a foreign language can best be made clear in the mother tongue.
- The use of the mother tongue saves time for the teacher to create situations for making the meaning of English sentences and words clear to the students.
- The time saved can be utilized for practice.

# Main Features of the Bilingual Method

- In this method mother tongue is used to convey the meaning of new words, phrases, idioms, sentences and grammatical rules.
- Mother tongue equivalents are given for words and structures but pattern practice is given only in English.
- Mother tongue is used only at the initial stage of the lesson. As students make progress in learning, Use of mother tongue is avoided.
- In this method, the teacher alone uses the mother tongue, to explain difficult words and phrases and not the students.
- Mother tongue is used to explain differences in phonetics, grammar and vocabulary.

## Procedure

The Bilingual Method is built around situations. All the language skills are considered equally important and no skill is postponed to a later date. Fluency in language skills is achieved in each situation. Mastering of skills is not seen as a long-term, painful process.

The focus is, in the early stages, on oral or conversational proficiency and this is to be achieved in each situation.

## The steps of the methodology are as follows

- Limitations of the basic English sentences
- Interpretation of the basic sentences in the foreign language situation. The teacher gives an oral mother tongue stimulus for evoking the foreign language response from the learner.
- Substitution and extension of English sentences. The learner is able to speak independently about limited situations.
- Independent speaking of sentences without a spoken stimulus either in the mother tongue or in the foreign language.

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- Interpretation of question to which suitable responses will be made.
- Normal conversation in the foreign language. This is the final step where the learners converse independently in the foreign language.

# The Direct Method

The Direct method is a reaction against the Grammar. Translation method. It is also called as a natural method in which the children are trained to learn English in the same natural way in which an Mother tongue. The main philosophy behind this method is that the learner learns a foreign language in the same ways as he learns his mother tongue.

The Direct method, sometimes also called as the 'reform' method natural method and psychological method, phonetic method and anti—grammatical method was established in France and Germany around 1900 and introduced in India in the early 20<sup>th</sup> century as a reform which was needed in the methods of teaching English.

The both methods are very useful to learn the language. This is also the easiest method in learning the language. This process may occur in an emerging society of the learners. It keeps every

One to have good level of understanding and awareness to the pupil to got involved in their actions. Thus keep everything possible to analyse and aware of everything in proper manner.

# Aim of the Direct Method

The direct method aims at establishing a direct bond between thought and expression. The learner should experience the new language in the same way in which he experienced the mother tongue. The learner should be given no scope to think in the mother tongue. So he begins to think in English and gets an active command of the language.

# **Principles of Direct Method**

The method originated in Frame in 1801 but found a ready audience in Germany. In the late nineteenth and early twentieth century, Henry Sweet, (1845-1912) an English Physiologist set about modifying and improving the Direct Method, as it was called, by the turn of the century. The teaching methodology was based on the following principles:-

- The process of learning is essentially one of forming associations: Speech with appropriate action, words with concepts and object. The association had to be direct, concrete and definite.
- Repetition was essential if associations had to be formed and reinforced. The teacher should begin with a limited number of items.
- Memory depends not only on repetition, but attention and interest as well. So, if a learner is motivated and wants to learn a language, he will do it.

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- The teaching materials, namely, texts, dictionaries and grammar should be interrelated and coordinated to make learning effective.
- In this method, the sentences is the unit of speech
- Formal teaching of grammar should be done only after learners have intuitively absorbed it from texts.

# Main Features of the Direct Method

H.E Palmer describes the principal features of the Direct Method as follows:

- Translation has to be banished from the classroom. The mother tongue should never be used, not even a bilingual dictionary.
- Oral leaning precedes reading and writing.
- Pronunciation should be systemic based more or less on the phonetic basis.
- Vocabulary and structures are learnt by questions asked by the teacher and answered by pupils.
- Grammar is taught indirectly through examples; the rules are derived.

# Procedure

A direct Method's procedure is a clear contrast with the prevailing grammar-translation classes. The course begins with the learning of English words and phrases for objects and actions in the classroom. When these could be used readily and appropriately learning moves to the common situations and setting of everyday life. From the beginning, the students should be accustomed to hear complete, meaningful sentences.

Grammar is taught by an inductive process and is learnt largely through practice. The study of grammar is kept at a functional level, being confined to those are which are continually being used in speech.

The teacher prepares the students for reading material in a text, by a preceding oral presentation of new words and new situations. Students are encouraged to seek direct comprehension by inferring meanings of unknown elements from the context. Finally, the students are asked to compare summaries of what they had read or discussed in the classroom.

# Limitations

- This study is the very exemplary one among the other methods.
- Bilingual method has taken the upper band because the survey is done in the rural
- Direct method is also equally given importance comparably the first one.
- The area mostly consist of the urban.

# Delimitations

This study is very exclusively done for the development of English language.

- Bi-lingual has got the high level of participation, because it is allowed to use the mother Tonque an the second language.
- It is very commonly used to know about the learning produce of language in a simple manner.

# Conclusion

This study shows the level of understanding of the language. It has very one in nature. But varies in method of learning by Bi-lingual method and direct method. Bilingual method is useful to the learner who use both the learner who use both the mother Tonque as well as the second language. Where as the Direct method deals with only one language. That is the English language. It is also very easy to those who learn the process of learning the language in detail.

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# VALUE BASED EDUCATION FOR STUDENTS

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#### Abstract

In India Value Based Education is the real need of the hour. It is necessary to develop the programs by frequent instructions of teaching values in the society. To inculcate the value system in their confused minds and make them value oriented powerful leaders, educational institutions should take the initiative to impart Value Based knowledge to this new generation. "Imbibing the qualities of good conduct, self-confidence and high values would help students earn a significant place in society. Today's generation is not going to catch the ethics without teaching. We have to teach the ideals to this generation before they are intercept and hold by the technological devices, information explosion and also by media. The paper discusses about the value education attempt taken by the author itself (myself) by creating questionaries' for her college students. According to me, Value Based Education is necessary to the students and, it should be teaching very dedicatedly. So that the students may emerge as good leaders in their chosen fields. **Keywords:** Value Based Education, Values, Society, Education.

#### Introduction

## Our history and mythology taught us of excellent values education.

We, the Indians, talk loud of our cultural heritage, we talk a lot of the characters of Ram, Krishna, Raja Harish Chandra, Sita, Savitr, Buddha, Mahavir, Kabir, Raidas, Chaitanya, Ramakrishna, Vivekananda and Ramanujan. Good that India has these great men as a part of our heritage. We have not to go out anywhere to seek for ideals. We have them all in our mythology and history. But what is needed is that they be not decorations on our walls but should be a source of enlightenment within. And how would that information come – from where and in what form?

UNESCO organized a "Values in Education" summit in 1998, to encourage schools to review their curriculum regarding value Education. The fact that a world body UNESCO s stress on the needs of teaching "values" in the school system is in itself a statement of the gravity of the problems created the gradual disappearance of such virtues and morals that are essential for maintenance of a civil society and the preservation of democracy.

The word "values" was first used by the German Philosopher Friedrich Nietzsche in 1880. Until then the word value was used as a verb meaning to value as esteem something or as a singular noun meaning the measure of something ,for example the value of money, property or labour. Nietzsche used the word "values" in plural to denote moral beliefs and attitudes that were personal and subjective because he believed in what Darwin's "Origin of Species", taught him about the survival of the fittest. In democratic societies, inculcating these values is imperative for maintaining law and order. For building good character of citizens, it is the responsibility of the educational institutes and the family to help young children to perceive the value of such traits.

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Building good character of young involves: Developing the ability to judge what is right, to respect what is right, and to help them to become courageous to do the right.

Value Education is a term used to name several things, and there is much academic controversy surrounding it. Some regard it as all aspects of the process by which teachers transmit values to pupils. "Value" as a more concrete noun, for example, when we speak of value or of "values" is often used to refer to what is valued, judged to have value, thought to be desired. Value Education assign the program of planned educational action aimed at the development of value and character. Through value Education, we like to develop the social, moral, aesthetic and spiritual sides of a person which are often undermined informal education. Value Education teaches us to preserve whatever is acceptable and worthwhile in what we have inherited from our culture. It helps us to accept respect the attitude and behaviour, of those who differ from us. Value Education does not mean value imposition or indoctrination. Vale Education can transform a diseased mind into a very young, fresh, innocent, healthy natural and attentive mind. The transformed mind is capable of higher sensitivity and a heightened level of the perception.

Terminologically, a value is one's beliefs about what is morally right and wrong and what is most important in life. This point of view has been expressed by R.C Das.: "Values are those ideals, objects and preferences that are universally good and desirable and are committed to what is right, important and true. Values are those that we cherish to live a life of excellence and intrinsic goodness by the accepted principles of the country." By its very nature, it is something that has worth, utility and importance.

T.V Kunnankal has articulated the very essence of values in extremely precise and apprehensible way: "Value literally means something that has a price, dear, precious, or worthwhile, and hence something that one is ready to suffer and sacrifice for and which gives a reason to live and if need be, a reason to die. Values bring to life the essential dimension of meaning. They are like the rails that keep a train on the track and help to move smoothly, quickly and purposefully. Values provide motivation, expressive power. They identify a person; give each one a face, a name and a character. Without beliefs, one floats like a piece of driftwood in the swirling waters of the Yamuna or Ganga or Cauvery. That is why sense of duty is central in one's life, to every liveliness and defines the quality of that activity, making its breadth, length and its height.

## **Role of Value Education**

Value Education provides motivation and guidance to our youngsters. It builds character which is beneficial for the growth of both the individual and the society in general. It influences our decision-making in life and helps us to frame healthy relationships in community. The prosperity of a country depends on its men of enlightenment and character. At present, education is merely job oriented. It may secure you a career, but it cannot guide you to lead
your life. Learning must teach a person what life is and what its goal is. It must purify the heart and clarify the vision. It must promote virtues to raise the moral, spiritual and social standards of the educated. The problem and failure of heart are all because of prejudices, biases, subjectivity- all this is taken care by being appreciative of the prepositions of spirituality as taught by our great philosophers. There is need to stress on Indian culture and spirituality in our management courses. In uncertain situations where one does not know where the economy is headed, whether one would have a job or not to-marrow, one needs internal cohesion, external resilience and ability to operate beyond personal interests. All these can be derived from lessons in spirituality. When there is uncertainty and a lot of negativity around, then value education channelizes energy into a positive direction. It gives individuals a great sense of purpose and inculcates a sense of discipline. People who become great statesmen, sports-person or successful business entrepreneurs have certain things in common. They all have firm faith in their culture and are all vigilant about their surroundings. They all know how best to use their energies. They all believe in hard-work and in doing things which are valuable for the society. Creation of such 'values' in our youth is the end product of value education. Just before the start of 21st century, several important changes had occurred in the human life all over the world which redefined human ways of life and brought corresponding changes in social values. An exponential development in tele-communication and information technology have reduced the world into a global village and have thus highlighted wide disparities among people in different areas. This phenomenon of globalization has given rise to issues of justice, equality, freedom and human rights etc. In last about half a century, the people have become highly materialistic. Every individual today is concerned about collecting lots of money and materialistic comforts. The world to-day is over-exploiting all natural resources without bothering about the own future generations. Deforestation, water and air pollution, excessive use of natural fuels and other resources is the result of this human greed. Thus the scope of value education to-day has widened to cover both the spiritual and the social values. These values are not cosmetic requirements of present human race. These are essential for peaceful living and sustainable growth in the world.

#### **Importance of Value Based Education**

Value - based education has been the wish of most nations and especially India. It refers to education by the outcome adds values to the learners and not just learning because it is a routine or mandatory to do so. Therefore, among the importance of value-based education is that it builds the various qualities of honesty, strength and humility in a person in regard to their social, moral and spiritual behaviour. The social life of an individual is a great aspect of their life because it shapes their behaviour in regarding to the environment that they live in. Therefore, value- based education plays a big role in some one's social life by teaching the importance of being honest with other people being humble in all situations and as well as

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handling challenges a strong manner. A good example is that, through value-based education, and then an individual can learn that being honesty with other people is a substantial aspect if they expect other people to be honest with them. The education is not only to pass but also for developing intelligent people who are able to deal with real life situations at any given time.

## Conclusion

Things are on the move now, and we must join this movement as responsible parents, teachers, students, social workers and Government planners in our interest. It is not sufficient to introduce' Value Education' as a subject. We must also create a true value-based environment in the schools/colleges and the society. Coordinated efforts are bound to give us fruit during our life- fruit of shining India.

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# QUALITY OF THE TEACHING WORKFORCE – A CRITERION FOR QUALITY EDUCATION

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#### Abstract

The imperative of the last few years to improve students' results also concerns the improvement of the quality of the teaching workforce. However, in recent years, recruiting and maintaining quality teachers has become a challenge among some countries. In addition to the aging teaching workforce, some countries record high dropout rates among new teachers and a lack of quality teachers in high demand. There is also a concern to attract motivated and high-performance candidates to teacher training programs and to reduce qualification requirements in the certification of new teachers. Issues such as these have an impact on the quality of the resulting teaching staff who are responsible for improving student achievement. For example, the aging of teaching force leads to the loss of expert teachers through retirement. The high drop-out rates of new teachers are costly for the system and can push educational authorities to fill teacher shortages by reducing qualification requirements for new teacher certification or by assigning teachers to teach subjects or degrees for those they have not been trained. In these cases, the quality of the teaching workforce is negatively affected. This article focuses on the methodological knowledge of teachers, the dynamics of knowledge in the teaching profession to examine their insinuations for the educational process and fact based implications for educational policy. **Keywords:** Teaching workforce, Content Knowledge, Pedagogical Knowledge and Quality Education

#### Introduction

As research shows, the quality of teachers is an important factor in determining student performance, even after taking into account the student's previous learning and the characteristics of the family context. Predictors of teacher quality generally include aspects such as class size, certification, type of qualification, earned titles or years of experience. Few studies have shown pedagogical knowledge as an important indicator of teacher quality. Pedagogical knowledge refers to knowledge and skills of teachers in various methods of teaching to create effective teaching and learning environments for all students. The potential of the learning subjects to inform teachers' pedagogical knowledge and, therefore, to improve pedagogical practice is significant. But do teachers incorporate this new knowledge sufficiently into their practice? The strategy crucial for teaching and learning 21st century skills, such as problem solving, association, communication and creativity, could lead to a new formation of the current teaching force and the updating of the base knowledge of the teaching profession. Again, the question is: do teachers have pertinent knowledge to teach 21st century skills? This paper sought to find answers to these questions and examined the teacher knowledge base and the dynamics of knowledge in the teaching profession.

#### Teachers as Specialists in Learning

Consider teaching a knowledge-rich profession with teachers as "learning specialists" are required to develop and evaluate new knowledge relevant to their central professional practice and regularly update their knowledge base to improve their practice and meet new teaching needs. By studying the knowledge that underlies effective education and learning, we are studying how to improve teacher quality. The quality of the teacher itself is an important factor in determining success in the results of the students. In fact, the main reason for investigating teacher knowledge is to improve student achievement. On the other hand, to improve the quality of teachers, it is essential to understand what implies the professionalism of teachers. In other words, the two main themes that underlie the study of teacher knowledge are improving student achievement and teacher professionalism.

## How to Recognize an Expert Teacher? What does the Professionalism of Teachers Imply?

The literature highlights many features such as extensive pedagogical knowledge, better problem solving strategies, better adaptation for different students, better decision-making, better perception of class events, greater sensitivity to the context and greater respect for students as a characteristics of expert teachers. Several studies emphasize the importance of knowledge that teachers possess, emphasizing that in addition to assimilating academic knowledge, student teaching must also incorporate knowledge derived from practical experiences and practices in the classroom. The research also shows that variations in "learning opportunities" in teacher preparation are linked to differences in student outcomes: teachers in the best performing countries tend to have more opportunities to learn content, pedagogical content and general pedagogy. While teacher knowledge is certainly a component of teachers' professionalism, professional competence involves more than simple knowledge. Skills, attitudes and motivation towards teaching also contribute to the mastery of teaching and learning. Blömeke and Delaney (2012) have proposed a model that identifies cognitive skills such as professional knowledge, general pedagogical knowledge, knowledge of contents, pedagogical knowledge of content and emotional-motivational characteristics such as motivation, self-regulation and professional beliefs about 'teaching and learning as the two main components of the professional competence of teachers.

## How does the Teacher's Knowledge Influence the Results of the Students?

Research on the impact of teachers 'knowledge on students' learning outcomes is poor and the few existing studies have focused on knowledge of pedagogical content or content knowledge. The following shows the implications of the studies conducted on mathematics teachers:

- Better content knowledge of teachers implies higher student results
- Better pedagogical content knowledge implies higher student results
- Pedagogical content knowledge has more impact on student achievement than content knowledge
- Only pedagogical content knowledge seems to have an impact on the quality of teaching
- Higher general pedagogical or psychological knowledge, higher the quality of instruction according to students perception

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While there is a discussions and debates on the connection between teacher knowledge and quality education for a long period of time, there is a lack of empirical research to demonstrate this hypothesis or even to link knowledge with student learning. The studies examined show that although much research is still needed to fully support this relationship and to test a transcultural conceptualization of general pedagogical knowledge, research so far is beginning to show that teachers' general pedagogical knowledge is relevant to understanding quality teaching as is understood by its impact on students' performance based on learning.

## **Knowledge Base of Teachers**

Indulgencing teacher knowledge is a complex issue that involves conceptualising the main underlying phenomena, such as the teaching and learning process, the concept of knowledge, and the way in which teacher knowledge is put into practice in the classroom. The following is a brief description of these problems.

## What do we Know about the Teaching and Learning Process?

There are several models that capture the complex process of teaching and learning. Some models perceive learning as a change in the student's experience or knowledge resulting from a change in the student's environment. Some approaches consider the teaching-learning process only from the point of view of teaching, while others consider the student's contribution to the process as well. The latest models indicate that the students' factors are part of and are interdependent with the learning process of teaching. These models imply that the knowledge of a teacher goes beyond the simple knowledge of the content and management of the classroom, and must also include the knowledge of students and learning.

#### What do we understand from the Teacher's Knowledge?

The teachers' pedagogical "knowledge base" includes all the cognitive knowledge necessary to create effective teaching and learning environments. Research suggests that this knowledge can be studied. However, identifying the content of this knowledge base is a complex problem. Most studies use the distinction between declarative ("know that") and procedural ("knowhow") knowledge from cognitive psychology as a theoretical basis. This approach is relevant because it focuses on understanding how knowledge relates to behavior or, in other words, the quality of teaching performance. The first key study on teacher knowledge (Shulman, 1987) ranked teacher knowledge in 7 categories, including the concepts were: general pedagogical knowledge (principles and strategies of management and organization of the class that they cut) and knowledge of pedagogical content (knowledge that integrates knowledge of the content of a specific topic and pedagogical knowledge for teaching that particular topic). In contrast, general pedagogical knowledge has not been the subject of many research studies, although several studies indicate that it is essential for the development of quality teachers. Some models of

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general knowledge on teaching methodologies merge pedagogical and psychological aspects, while others do not explain the psychological characteristics. Psychological components explain the fact that learning takes place in a social context and successful learning depends on the general cognitive and affective characteristics of each student. The main conceptual problem that arises is whether we can develop a transculturally valid instrument of teacher knowledge. Because the way in which the brain processes information must be independent of the cultural context, to adapt a cognitive psychological teaching and the learning approach, we can assume that there is no basic pedagogical knowledge to create situations of learning teachers and independent of culture. This hypothesis, in fact, has been demonstrated in studies that show that a standardized tool designed to investigate general pedagogical knowledge is culturally valid.

## How does the teacher's knowledge in the classroom work?

Investigating the knowledge of teachers as "learning specialists" implies understanding how this knowledge works in the teaching-learning process; More specifically, as teachers apply their knowledge to make decisions, for example on planning the lesson or making judgments on the ground in the classroom. A series of research studies conceptualizes the teaching profession as a "profession of clinical practice" and compares it to the medical profession. Some argue that the decision is actually a basic teaching of skills: teachers make decisions regularly while processing cognitively complex information about the student to decide alternatives to increase their understanding. A review of the different models that describe the decision making process of teachers shows that the factors influencing the decisions of school teachers include antecedent conditions, such as students, the nature of the educational task, the class and the environment, which combine with the characteristics of teachers and cognitive processes. Impact the pedagogical decision taken. Decision making is a cyclical process because the pedagogical decisions in turn influence the antecedent conditions. The empirical research that investigates how teacher knowledge is used in decision making seems to suggest that to make informed learning decisions, teachers must be able to analyze and evaluate specific learning episodes, combined with contextual and situational factors, and to connect all this information to your specialized knowledge of the teaching-learning process to guide the subsequent teaching actions. Therefore, making good pedagogical decisions depends on the quality of the pedagogical knowledge that the teacher has.

## Conclusion

It is expected that the learning specialists (Teachers), process and evaluate new knowledge pertinent to their fundamental professional preparation and regularly update their knowledge base to improve their practice and meet new teaching needs. Therefore, based on the pedagogical knowledge of teachers and the dynamics of knowledge in the teaching profession it is essential to implement it in your training process in order to benefit the students of the future society.

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## INNOVATIVE TECHNIQUES IN ENGLISH LANGUAGE TEACHING

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#### Abstract

English is the official language of the entire world and it is a very difficult language to teach. In fact every language varies with the way of teaching. English is a very old language and has undergone many forms of changes from Proto English derived from the Latin and the German culture to the Modern English which was established after in the post Renaissance period. Each version was simpler than its previous. English is the simplest edition of a very old Language and yet it is still difficult to teach this language efficiently particularly to those who speak English as a second language. In English Language Teaching the various methods of teaching as follows language laboratory, e-learning, e-content, Computer Assisted Language Learning (CALL), PowerPoint presentation, and such, plays an essential role. Technique is the unique way of making some technological improvement. Students use to record their utterances while doing oral assignments such as group discussion, conducting interviews, producing features, etc. This paper focuses the present innovative techniques which are useful for the improvement of student's level by using the latest technology in many schools in India. This paper discusses a few practices that are introduced in English classrooms in many schools. **Keywords:** Language Learning, E-learning, English Language Teaching, Language Teaching, Language Laboratory.

#### Introduction

Teaching English as a second language refers to students whose first language is not English, typically accessible in a territory where English is the main language and natural English language engagement situations are appropriate to be plentiful. English Language has been considered to mans power extraordinary achievement, is so much a part of our lives, like the air we inhale, that very often we take it for granted and as often are not aware of its characteristic features. There are many things about English language that are still a mystery and will almost certainly remain so. However, there are aspects we do know. The past several decades have seen wonderful developments in linguistics offering a description of its basic characteristics. Language is a system. Each language has its own structure, its own system. It has its own unique way of organizing its units into an internal structure.

#### Modern Trends of Teaching English

A modern trend of teaching English is the ambition of Teaching English. The goal is to produce fully capable skills in English knowing bilinguals rather than simulation of native speakers. The purpose is not to desire to become native speakers of English language because we are already known that native speakers of our own but to focus on English as a means of communication and then English are not viewed as an end in itself but as a means to learn satisfied such as science and mathematics".

## Content and Language Integrate Learning (CLIC)

The CLIC is move towards where the English teacher uses fractious curricular content and so the students study both the content and English.

- Early Start of Teaching English
- Change in the Approach to Teaching Culture
- Changing the View of an English Teacher
- Change in Teaching Content and Test Design
- E-Learning
- Strategic Teaching and Learning

**Early Start of Teaching English:** Many countries have started teaching English in earlier grades at school. Varies country have introduced English from Grade-I to Grade IV.

**Change in the Approach to Teaching Culture:** Both the local or native and international culture dominates in English language classes. There is less centre of attention on teaching the culture of native speakers of English except there is a unambiguous purpose for doing so.

**Changing the View of an English Teacher:** It is increasingly being recognized that the quality or effectiveness of teachers is determined by their linguistic, teaching and intercultural competence rather than their being native speakers of English.

**Change in Teaching Content and Test Design:** Teachers use a multiplicity of restricted texts or English translation of pretend story in the classroom. The use of language as well as the use of a variety of accents in listening activities or tests is encouraged in the English language classroom.

**E-Learning:** With the production of tablets and smart phones, it is believed that textbooks will disappear in a few years. Furthermore, the access to knowledge in terms of flexibility and mobility has changed significantly.

**Strategic Teaching and Learning:** Teaching English language classes focuses on development the students' thinking fighting fit as language content, outcomes and learning actions. There are important and difficult student- teacher interactions inside and outside the classroom. The strategic learning is emerging as a way to make language learning more engaging and relevant to the younger generation.

## **Teachers as Lifelong Learners**

In the acquaintance based culture and to remain logical and employable, teachers are usual to employ in invariable professional development or the professional learning activities from the beginning to the end of their careers. Any other profession, teachers are also likely to assume a better accountability for their own professional learning, continually developing their knowledge and skills. Andrian under Hill lists out the following as the recent trend which are very much prevailing in English language teaching. They are

- Networking, interest and support groups.
- Learner centeredness and learners needs.
- Reflective practice and teacher learning.
- Portfolio development for teachers.
- Syllabus design / materials development.
- Criticism of published materials.
- English as an International language.

## **English Teaching and the ICT**

English teaching is an advancement of Information and Communication Technology [ICT] in the field of the ELT has been intensely pervaded by the ICT. The easy access to technology has made information possible for enhancement of learning programme and about 80% of it is in English. The English teachers regarded internet as one of the substitute media to teach language.

## Computer Assisted Language Learning [CALL]

Computer Assisted Language Learning is yet another manifestation of Computer Mediated Language Learning. The first phase of the CALL was conceived in 1950 and was implemented in 1960s and 1970s. In this method, the computer gives a motivation to the learner by being not a mere tool but also a teach.

## Web Based Learning

A web based learning also called technology based learning or distance learning or on line education. E-learning is one of the fastest developing areas. It provides opportunities to create well-designed, learner-cantered, reasonable, and interactive, flexible e-learning environment. There are thousands of English web based classes that suggest training for a diversity of basic language skills such as Learning, Speaking, Reading and Writing and are ready to interactive in a variety of ways. Some of the common technologies available for promotion of education are as follows:



The students can swap over a small number of words with native speakers of the objective language using e-mail by creating a personal email account (g-mail, yahoo, hotmail, etc) which is free of charge. The students can mail their home work to the teachers worried and get it corrected in turn. The teacher can also provide to be revisions, comment and suggestions for the betterment of every work and transmit them back.

**Blogs:** A blog is a personal or professional journal frequently updated for public utilization. The blogs enable to uploading and linking the files which is very much appropriate to serve as on line personal journals for students. Pinkman (2005) indicates blogging becomes communicative and interactive when participants assume multiple roles in the writing process, as readers who respond to other writers' posts and as writers-readers who, returning to their own posts, react to analysis of their own posts. The readers in turn can comment on what they read, although blogs can be placed in secured environments as well.

**Skype:** Every internet service has audio functions and technological instruments like laptops with cameras. The students could communicate with their teachers and friends who are far away. Likewise, they could very well communicate with the speakers of native language and get their pronunciation checked so as to improve their speaking.

**Mobile Phone:** Learners can search for new words using dictionary option in the mobile phones and enrich their lexicon. They may verify the spelling, pronunciation and usage of the specific word they searched for. Moreover, they can use Short Message Service (SMS) to send queries to their instructors and get their worries cleared.

**Ipods:** Ipods is one of the multimedia devices, enhance the users to generate, deliver, exchange texts, image, audio and video scripts as per the requirement. The teachers send text messages and the students can read and answer to them. In addition to this, the students can record and listen to their speeches, poems, news, short stories etc. In the ipods provide a chance to the learners of English to improve their listening, pronunciation, vocabulary, grammar and also writing.

## Technology based Innovative Teaching and Learning Strategies

- Using innovative tasks for ELT
- Teaching pronunciation through music
- Using post-traditional method pedagogy for ELT
- ELT through blogging, E-mails and sms.
- Benefits of the New Method

## **Teaching through Games**

It is a very interesting method of teaching. Students are generally tend to like games and want to play them more and more. Conventional methods dictated for study and games to be separate but the truth remains that the students tend to be more interested in playing games rather than sitting down to study. Some logical reasoning method would dictate us to combine the two aspects to solve the problem. The games part of learning would help the students keep their interest as the aspiration to win is very strong. It keeps us going and when included with different aspects of the learning process would carry on approximately throughout the day without the children getting tired of studying.

## Word Games

The most important part of any language is the vocabulary. To understand the meaning of the words and to use them in day to day life is a very difficult task and games can help the students overcome this complexity. Games like scrabble, housie etc. have been designed for this specific purpose. In the games are just based on words and help the students develop their language. All the games are very addictive and help a lot in improving our vocabulary as whenever the student hears a new word the first question that comes up is "what is its meaning?" and in this way the vocabulary improves and most of the times we don't even have to consult the dictionary.

## Competitions

Competitions like debates and elocution also help the students a lot in learning the language as the aspect of the competitions keep them at the best in conversations. It services them to use the best achievable building of sentences to put forward their opinions and to use good vocabulary etc. It is a very important device in helping them learn the English language and also these competitions help them address large crowds which are a very important part of personality development.

## The Role of a Modern Teacher

Role as a technological term which originally comes from sociology and refers to the shared expectation of how an individual should perform. Teacher's role as a part of design, component of a technique. Little Wood conceptualizes the role of the teacher as a facilitator of learning, an overseer, a classroom manager, a consultant or adviser and at times a co-communicator with the learners. A teacher plays the role of a controller, organizer, assessor, promoter, participant, resource, tutor and observer. Tudor also perceives the role of a teacher in the learner centred classroom.

## Conclusion

As students tend to put the importance on completing a set task rather than on learning something from it, encouraging students to reflect on their work has probably been the most difficult part of this method, but also the most valuable. Generally, the implementation of the method takes a considerable amount of time, because the students and teacher have to get used

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to the new teaching scenario as well as the technology involved. Furthermore, the method, stimulating as it may be for students, is generally time-consuming for the teacher, both in the preparation and feedback stage. Thus the English teacher must always be friendly with the learners to identify their problems, to be able to rectify them for the students in a friendly, non-threatening way.

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# SCHOOL STUDENTS ATTITUDINAL IMPACTS TOWARDS INCLUSIVE EDUCATION AMONG HIGHER SECONDARY LEVEL

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#### Abstract

Inclusive education is a recent approach in educating students with special needs in the integrated schools. To avoiding and separating disabled students from the normal students and more number of disabled students were enrolled in the inclusive schools in the year 2014. It indicates inclusion develops and brings the attitudinal changes among the normal students. More than six million of disabled students from primary to tertiary level receiving educational services under inclusion. Inclusive education termed as all students with disability and based on the severity level of the disability, they need the quality inclusive education within the normal classroom environment in the schools. Only limited number of research addressed and supported the inclusive education and its gain momentum in regular classroom setup. Research findings evidenced that there is a positive results and its effects on inclusive education was sketched in the integrated school education system and hence the finding demonstrated and evidenced that there is a high level of acceptance and the proper valuing of students with disability and hence they are recognized based on their individuality. Acquiring of new skills, enhancement of self actualization and self esteem influenced by the integrated education. If each students possess a positive attitude means the there is a chances and the improvement of quality in the inclusive education. In this research paper it analyzes the attitudinal impacts of inclusive education among higher secondary school students.

#### Introduction

Inclusive education and its impacts defined very clearly about the achievement of the disabled students with that of their learning. Social, personal and attitudinal based effects of disabled students in getting quality education. Now-a-days it is highly a challenging tasks in getting and fulfilling their psychological and physical needs. Students with disability benefited socially with increased interaction with their classmates. Disabled students are highly need help from the other students present in the inclusive classroom environment. If the students possess positive attitude means then it is highly useful to the disabled students to fulfilling their learning and other needs in getting quality education.

## Operational Definition of the Key Terms Attitude

The way what we think, feel or behave

#### **Inclusive Education**

Inclusive education is to provide all students with the most appropriate learning environments and opportunities for them to best achieve their potential

#### Objectives of the study

1. To identify the attitudinal impacts of school students related to the inclusive classroom environment with that of the biographical variables.

2. To find out the significant difference between the biographical variables with that of the gender, locality, medium and arts and science group students.

## Hypothesis of the Study

There are no any significant differences between attitudinal impacts with that of the gender, locality, medium and arts and science group students

## Statement of the Problem

Present educational system planned to implement inclusive education effectively. Proving equal and quality education for all the students is the challenging tasks for all the teachers and teacher educators. If all the personnel's and the students possessing positive attitude then only we can provide quality education for all the students without any hindrances in the inclusive classroom environment and hence there is a need for identifying the attitudinal impacts of the school students

## **Research Design**

A descriptive research design was used for this study in order to investigate and analysis the school students attitudes towards inclusive education. Survey method was adopted.

## **Research Tool**

Standardized tool names as Likert-scale items, Student Survey questionnaire

## Sampling size & Technique

Simple random sampling technique was adopted; the information collected from the school students those who are studying in the 9 & 11<sup>th</sup> standard. Totally 65 students were selected.

## Data Analysis and interpretation

Table -1, Mean values and significant differences based on the attitudinal impacts of students studying in the inclusive classroom environment with that of gender.

S. No.	Gender	Ν	Mean	SD	't' value	Level of Significance	
1	Male	27	12.27	3.65	2 1 0	0.01	
2	Female	38	10.92	3.13	5.12	0.01	

From the above table it is inferred that the calculated" value is 3.12, which is significant at 5% level, Hence the research hypothesis is accepted and null hypothesis is rejected. Therefore it is concluded the attitudinal impacts of male students towards disabled students is more positive than that of female students.

Table -2 Table -1, Mean values and significant differences based on the attitudinal impacts of students studying in the inclusive classroom environment with that of locality

S.No.	Locality	Mean	SD	't' value	Level of Significance	
1	Rural	12.29	3.12	2 50	0.001	
2	Urban	10.37	3.15	3.59	3.59 0.001	0.001

From the above table it is inferred that the calculated" value is 3.59, which is significant at 5% level, Hence the research hypothesis is accepted and null hypothesis is rejected. Therefore it is concluded the attitudinal impacts of rural students towards disabled students is more positive than that of urban students.

Table -3, Mean values and significant differences based on the attitudinal impacts of students studying in the inclusive classroom environment with that of demographical variables (medium)

S.No.	Medium	Mean	SD	't' value	Level of Significance
1	Tamil	12.31	3.19	1.072	NIC
2	English	10.81	3.32	1.072	115

From the above table it is inferred that the calculated" value is 1.072, which is less than the table value 1.98, which is not significant at 5% level, Hence the research hypothesis is rejected and null hypothesis is accepted. Therefore it is concluded the attitudinal impacts of tamil medium and English medium students towards disabled students both have same level of positive attitudinal impacts.

Table -4, Mean values and significant differences based on the attitudinal impacts of students studying in the inclusive classroom environment with that of demographical variables (std)

S.No.	Standard	Mean	SD	't' value	Level of Significance
1	9	10.83	3.34	2 54	0.01
2	11	12.23	3.14	5.54	0.01
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From the above table it is inferred that the calculated" value is 3.54, which is significant at 5% level, Hence the research hypothesis is accepted and null hypothesis is rejected. Therefore it is concluded the attitudinal impacts among 9<sup>th</sup> std students towards disabled students is more positive than that of 11<sup>th</sup> std students.

## **Results and Discussion**

Disabled students in the inclusive classroom were reflected positively. The findings suggested that positive and favorable attitudinal impacts in the inclusive classroom environment. The attitudinal impacts of male students towards disabled students are more positive than that of female students, rural students exposing more positive than that of urban students and also 9<sup>th</sup> std expressing more positive than that of 11<sup>th</sup> std students, and finally the students those who are studying in both Tamil and English medium students having same level of positive attitudinal impacts towards disabled students studying in the inclusive classroom environment.

## Conclusion

The normal students ready to rendering their hands towards disabled students and they also ready to express their positive thinking and behavior in front of their peer groups in developing themselves in getting equal and quality education. Male students highly shared their feelings and friendship with their peers in developing their positive attitudinal impacts when compare to the female students. Students from the rural area are highly affectionate and rendering dedicated help towards disabled students in getting their inclusive education.

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## CHILDRENS WITH SPECIAL NEEDS AND QUALITY EDUCATION

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#### Abstract

In this paper we are discuss about the children with special needs and quality education. Every day children with disabilities faces many problems, they were treated indifferently, to overcome these problems they should be exposed to quality education. Education is the key to solve all the basic problems for the children with special needs.

#### Introduction

"Special needs" is an umbrella term for a staggering array of diagnoses. Children with special needs may have mild learning disabilities or profound cognitive impairment .All children, including with special needs, have a right to an education which is appropriate to their needs. The aims of education for people with special needs are same as apply to all children. Education should be about enabling all children, in line with their abilities, to live full and independent lives so they can contribute to learn throughout their lives.

#### Meaning of children's with Special Needs

The educational requirements of pupils or students suffering from any of a wide range of physical **disabilities**, medical conditions, intellectual difficulties, or emotional problems, including deafness, blindness, dyslexia, learning difficulties, and behavioural problems.

#### The special children's struggle

The enrolment rate of CWDS in pre-primary, primary and secondary school is very low. About 9% of CWDS attend school and only 6% of these children complete primary school and go to study in secondary schools. **Financial incapacity to manage the school dues**.

The current school curriculum is not sensitive to the educational needs of CWDS and opportunities for these children are consequently limited and restricted.

School infrastructural difficulties are unfriendly to meet the CWDS' need. Lack of/limited involvement in sports disability related activities for CWDS hence restricting sports ambitions and poor body healthy set up for such children.

Negative attitude towards CWDS by teachers and their fellow colleagues/ peers has affected the retention of CWDS in school.

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**Long distance Schools** are not within the reach of CWDS. In rural areas, transport is still a big obstacle. This is complicated by some CWDS.

#### Education for physically challenged children

The physically handicapped persons should be trained in a way that has to posses confidence in order to adjust himself with the environment.

- To learn to be independent.
- To care for his personal needs.
- To become proficient in a suitable occupation field
- To assume family, social and citizenship responsibilities

The guidance programmes of the school should ask the teacher to give instruction to each child of these categories personally. There are four major types of special needs children:

- 1. Physical muscular dystrophy, multiple sclerosis, chronic asthma, epilepsy, etc.
  - Developmental down syndrome, autism, dyslexia, processing disorders
- 2. Behavioural / Emotional ADD, bi-polar, oppositional defiance disorder, etc.
- 3. Sensory Impaired Blind, visually impaired, deaf, limited hearing

#### Identification of Gifted Children

It is necessary to identify the gifted children in the school. The cooperation of the parents, teachers, psychologists and social workers are required to identify them following are the several method to identify the children.

- Intelligence tests
- Achievement tests
- Cumulative record cards
- Teacher's observation

## **Characteristics of Gifted Children**

#### Physique and health

Naturally, gifted children are physically superior than other children.

#### **School achievements**

Most gifted children in school are usually high achievers.

## **Reading Development**

They will read quickly, with deeper understanding.

## Interests

Giftedness is characterised by enthusiasm and they are interested in activities. They usually wish to persist in the case of difficulty which they consider as worthwhile.

#### **Shanlax International Journal of Education**

#### Two Day National Conference on QUALITY EDUCATION FOR ALL - A SEARCH FOR IDENTITY

#### Social and Emotional Development

They naturally possess a high degree of organizing capacity which influences their emotional development. They are always stable in the general and emotional situations They will be patient to all environments. But they will become aggressive if the authority questions then unreasonably and they will also challenge the situation.

**Character and personality:** A majority of gifted children are fond of showing their superiority in character and personality. They want to project them as first in learning, remembering, the ability to analyse a problem, reasoning, reproducing activities they learnt already. etc. They have the power of sustained attention.

#### Education for gifted children

- Making the student aware of his assets and Limitations.
- Helping the child in planning and Decision-Making.
- Helping him develop vocationally
- Helping him achieve higher-level work skills.
- Helping the mentally gifted to reach an optimum growth

## Education for Visually Impaired Children/Visually Handicapped Children

Visually impaired children can be classified into categories and they are;

- 1. The blind who are educated through channels other than vision, and
- 2. The partially sighted who can acquire educational skills by utilising their vision.

There are certain symptoms and observable behaviours to identity the children with visual impairment or partially sighted .Such a child:

- Rubs eyes excessively
- Covers one eye and tilts the head forward
- Holds objects including the book close to his eyes
- Asks other children when taking notes from the blackboard
- Blinks more frequently
- Have watery eyes.

## Education for deaf and dumb children

The school teachers have to notice the nature of hearing impaired children, see that they are adequately diagnosed and given whatever, medical treatment is necessary and provide an appropriate educational guidance programme. Though the educational guidance programme is not the same for all cases of hearing handicaps, we will discuss some general procedures for helping hearing impaired children who, despite the handicap, can make some use of auditory stimuli.

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The deaf people need a provision of part-time specialised or trained teacher counsellor to help them individually or in small groups for an hour a day. This help would consist of:

- Training in the use of hearing aids
- Auditory training
- Lip reading
- Speech correction

The ability to pronounce sounds cannot be considered as speech. It involves the assimilation of sounds into word, then combination of words into units to make a meaningful whole. Speech is the best means of communication of one's ideas, feelings and thoughts. So in the normal development and progress of the child, speech defects can be a hurdle.

## Conclusion

The community at large is often unaware of the potential of children with special needs. In the popular mind, special needs are usually identified with very low expectations. Parents and institutions should believe in the value of educating children with special needs. The higher the expectations, the higher will be their acceptance in the families and institutions. Every child is unique, with individual strengths and learning needs. Children should therefore have access to a range of different teaching approaches and learning programmes to meet their individual needs.

# CO-OPERATIVE LEARNING STRATEGY AND ACADEMIC ACHIEVEMENT IN MATHEMATICS AMONG SECONDARY LEVEL STUDENTS

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#### Abstract

Cooperative learning is an approach to group work that minimizes the occurrence of those unpleasant situations and maximizes the learning and satisfaction that result from working on a high-performance team. The term cooperative learning(CL) refers to students working in teams on an assignment or project under conditions in which certain criteria are satisfied, including that the team members be held individually accountable for the complete content of the assignment or project. Here the investigator has tried on the sample of 80 students by teaching them co-operative learning strategy and convention method of teaching. Pre-test and post test design is used. The findings of the study shows that the students who belonged to the experimental group, which is taught by co-operative learning significantly have better academic achievement in mathematics than those students who belonged to the control group. Consequently, co-operative learning proved to be an effective intervention to help the students become active learners and enhance their academic achievement.

Keywords: co-operative learning strategy, academic achievement

#### Introduction

The quality of education mainly depends on the quality of instruction provided to the students in the classroom. The teachers need to introspect how well they teach the students to produce quality in them. The destiny of the nation is shaped in the classroom. Hence it is very much significant to state that no people can rise above the level of its teachers. The students can become competent and have mastery over their learning only if the teacher teaches effectively. The teacher cannot use the same method for the students as students have individual differences. In order to meet the individual differences the teacher uses various techniques or plans or strategies which can match the objectives of teaching and students learning outcomes.

There are many innovative teaching techniques and strategies which help to enhance the academic achievement of the students. Classroom interaction in the name of co-operative learning which helps for better academic achievement and to develop social interaction.

#### What is co-operative learning?

Cooperative learning is the instructional strategy that is used for small groups so that students work together to maximize their own and each other's learning. It may be contrasted with competitive (students work against each other to achieve an academic goal such as a grade of "A" that only one or a few students can attain) and individualistic (students work by themselves to accomplish learning goals unrelated to those of the other students) learning. In cooperative and individualistic learning, the teacher evaluate student efforts on a criteriareferenced basis while in competitive learning, the students are graded on a norm-referenced basis. While there are limitations on when and where the teacher may use competitive and individualistic learning appropriately, hence the teacher may structure any learning task in any

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subject area with any curriculum cooperatively. Cooperation is working together to accomplish shared goals. Within cooperative situations, individuals seek outcomes that are beneficial to themselves and beneficial to all other group members.

## Need and Significance of Study

Today's education is a teacher and subject centered education, where the student remains passive in the class. The achievement of the students is mainly based on the rote learning than the development of his thinking skills and mastery over the content. The retention of the concepts will be of the small duration. Hence there is a need for such methods which develops cognitive ability and enhances the academic achievement.

Co-operative learning strategy stands for teaching in which students are provided opportunities on co-operative principles in which they share their knowledge and experiences with their peer groups. It is a teaching strategy that encourages students by alleviating overt competitiveness and substituting encouragement.

In co-operative learning, the students work with his or her peers to achieve the common goal rather than the personal gain. It develops a positive attitude towards the learning and also helps to attain the individual achievement. A learning goal is a desired future state of demonstrating competence or mastery in the subject area being studied. The goal structure specifies the ways in which students will interact with each other and the teacher during the instructional session.

## **Objectives of the Study**

The main objectives of the Study are

- 1. To prepare lessons transcripts based on co-operative learning strategy on selected topics of mathematics of standard IX state board syllabus.
- 2. To find out the effectiveness of lessons transcripts based on guided discovery method with respect to creativity in mathematics of IX standard students.
- 3. To study the difference between pre-test scores of achievement in mathematics of control and experimental group.
- 4. To study the difference between post-test scores of achievement in mathematics of control and experimental group.

## Hypothesis

The following null hypotheses have been formulated.

- 1. There is no significant difference in the pre test scores of achievement in mathematics of control and experimental group.
- 2. There is no significant difference in the post test scores of achievement in mathematics of control and experimental group.

## Methodology of the Study

**Procedure of the Study:** Experimental design was adopted. Before starting experimentation, the investigator collected test marks scored by the students in mathematics in second term examination of both experiment group and control group and found that there is no significant difference in their mean scores. The students of the experimental group were taught using lesson transcripts based of co-operative learning strategy and the other group using conventional method of teaching. After the treatment the post test was too administered to both the groups. The collected data was subjected to the statistical analysis and the results obtained were interpreted.

## Sample

The sample of the study consisted of 80 students studying in ninth standard under the State board syllabus in Bangalore city. The sample included both boys and girls.

## Tool used

The following tools have been used in the present study:

The tool to measure the achievement in mathematics is prepared and validated by the researcher.

## **Analysis and Interpretation**

**Hypothesis-1**: There is no significant difference in the pre test scores of achievement in mathematics of control and experimental group.

-			-	0 1	0 1
Group	Ν	Mean	S.D	't' Value	Significance
Experimental Group	40	5.22	1.310	0.260	NS
Control group	40	5.15	1.27	0.260	113

Table-1	Com	parative	mean	scores	of I	Pre	test	scores	of	experimental	grour	o and	control	σ	<b>r011</b>	n
rabie-r	Com	parative	mean	SCOLES	UI I	I I C	iesi	SCOLES	UI.	experimental	group	anu	control	· 5	IUU	Ρ.

From table-1, It is found that obtained't' value of experimental group and control group with respect to their academic achievement in mathematics is less than the table value. Hence the hypothesis -1 is accepted and there is no significant difference between the experimental group and the control group in their academic achievement in mathematics in the pre- test. Therefore it may be concluded that, the experimental and control group were alike and equal with reference to academic achievement in mathematics in before subjected to experimentation.

**Hypothesis-2:** There is no significant difference in the post test scores of achievement in mathematics of control and experimental group.

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Group	Ν	Mean	S.D	't' Value	Significance	
Experimental Group	40	40.30	4.077	2 156	Sig at 0.01 level	
Control group	40	36.5	5.68	3.430		

Table-2 Comparative mean scores of post test scores of experimental group and control group

From table-2, It is found that obtained't' value of experimental group and control group with respect to their achievement in mathematics is greater than the table value. Hence the hypothesis -2 is rejected and alternative hypothesis is accepted that there is significant difference between the experimental group and the control group in their achievement in mathematics in the post- test. Therefore it may be concluded that, the experimental group shows better performance with respect to achievement than the control group after subjected to experimentation. That is the co-operative learning strategy has enhanced the performance of the students, as the mean scores of experimental group is more than the mean scores of control group.

## Summary of the findings:

The students who belonged to the experimental group which is taught by co-operative learning strategy significantly have better academic achievement in mathematics than those students who belonged to the control group. Consequently, the cooperative learning strategy proved to be an effective intervention to help the students become active learners and enhance their performance. **Conclusion:** Based on the findings of the research, the following conclusions were reached:

- The group taught using co-operative learning strategy had better mathematical achievement than the group taught using the conventional method.
- Students are more interested and motivated to do the activities in co-operative learning strategy.

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# ATTITUDE TOWARDS DISCIPLINE AMONG THE HIGHER SECONDARY STUDENTS

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#### Need for the Study

The amount of poor behavior in certain schools is still quite a lot we need to put in an effort into creating new disciplinary practices that are more effective and will reduce behavior problems in schools. Yes discipline in schools should be definitely improved because the students are getting spoilt and no sense of respect is left among them! They have been not understanding the importance of school in their future.

Research shows that a zero tolerance approach to school discipline does not promote school safety. In fact, punitive approaches that exclude children and youth from schools can actually increase behavior problems, the risk of substance use and violence, and the likelihood of academic failure. The result is that struggling students are being pushed out of school, leading many on a path to the juvenile or criminal justice systems.

A Positive School Discipline approach, however, creates a supportive learning environment where all students can thrive. Reserving suspension and expulsion as measures of last resort and employing alternative programs and practices that support student needs and hold students accountable, yet keep them engaged in the classroom, leads to higher achievement and improved graduation rates.

Discipline has become a real problem in schools these last twenty years. Unfortunately, it seemed to fall in proportion to the recognition of children's rights. Let's be clear, there was a need to upgrade children's rights to the 21st century standards, but unfortunately, the government never thought about matching this increase with a radical reform of school discipline. Children's rights correctly eliminated certain types of physical punishment with more humane forms of discipline, but educational discipline was forgotten and this state of affairs remained up till a few months ago with the implementation of the new Educational Framework that does not discuss discipline. How can a new Educational Framework be introduced without new forms of discipline to implement it?

Another problem was the school-leaving certificate that for decades could not be used as a lever to control certain student's problematic behaviour and is only being reformed now.

Successive Nationalist administrations fed this mismatch to the extent that the local education system was bereft of any effective way to discipline problem students. Keep in mind that classes also had students with special needs some of whom also displayed problematic

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behaviours and difficult students with social problems. Coupled to large student populations, this became a real problem.

Large schools are more difficult to patrol than smaller ones. They have many more nooks and crannies were students can hide and make mischief. They need many more teachers to supervise them. So lumping all class forms together leads to a greater incidence of bullying especially from higher forms towards younger students. Smaller schools are easier to patrol and need less staff for supervision. Why these advantages were not taken into consideration is a mystery? The investigator wanted to verify the attitude towards discipline among higher secondary students. Hence the need for the present study.

#### **Terms and Definitions**

Attitude towards Discipline – refers to the positive or negative beliefs towards the system of rules, punishments, behavioural strategies adopted in the school for controlling the students actions & behaviour as measured by the scale of Attitude towards Discipline Rating Scale, used in this study.

*Higher secondary students -* refer to the students who are studying in XI and XII standard in Madurai district under Tamil Nadu State Board.

#### Variables of the Study

The study has been designed with the following variables:

## **Dependent Variables**

Attitude towards discipline

## **Independent Variables**

- Gender
- Standard
- Tuition undergoing
- Medium of instruction
- School locality
- School kind
- School management
- Participation in sports and games
- Participation in extra curricular activities

## **Objectives of the Study**

- 1. To measure the level of Attitude towards discipline among the Higher secondary students.
- 2. To find out whether there is any significant difference in Attitude towards discipline among the Higher Secondary students in terms of select Independent variables.

## Hypothesis of the Study

Each of the independent variables exert a significance influence on Attitude towards discipline among the Higher secondary students.

## Methodology - in - Brief

## Sample

A sample consists of 375 Higher secondary students from schools in Madurai District studying under Tamil Nadu State Board constituted with due representation given to the variables, viz., Gender & School locality.

## **Tool Used**

Attitude towards discipline– Rating Scale Constructed and Standardized by **Sureshkumar**, **M**.(2009).

## Technique

Survey

## **Statistical Treatment**

1. Test of Significant Difference – "t" test

## Attitude Towards Discipline Among Higher Secondary Students

The empirical average score of Attitude towards discipline of the higher secondary students involved in this study is found to be 41.70, while the theoretical average is 40 only. Thus the Attitude towards discipline of the higher secondary students is found to be little above the average level.

## Attitude towards Discipline and Gender

The statistical measures and the results of test of significance of difference between the mean scores of Attitude towards discipline among higher secondary students in terms of Independent variables are presented in Table.

S1. No.	Variable	Sub-variables	N	М	SD	't' - value	Significance At 0.05 level	
1	Condor	Male	221	39.54	3.61	12.00	Significant	
1	Genuer	Female	154	43.92	2.34	13.99		
2	Standard	XI	270	39.31	3.10	0.21	Significant	
	Stanuaru	XII	105	43.11	3.71	9.21		
2	Tuition	Yes	255	38.67	2.69	17.05		
3	undergoing	No	120	44.82	3.437	17.95	Significant	

# Table: Statistical Measures And Results of Test of Significance For Difference Between The Means of Attitude Towards Discipline: Independent Variables – Wise

V01. U	opec	Iai issue i	1 601		10	100N. 2520-2005		
4	Medium of	Tamil	271	43.12	3.10	6.40	Significant	
4	Instruction	English	104	40.63	3.64	0.40	Significant	
F	Cabaallaality	Rural	199	38.07	2.08	28.00	Significant	
5	School locality	Urban	176	45.40	2.69	28.90		
6	School kind	Unisex	163	39.60	2.46	19 55	Significant	
0	School Kind	Mixed	212	44.30	2.10	16.55		
7	School	Govt/aided	270	39.66	3.05	11 E <i>C</i>	Significant	
7	management	Private	105	44.39	3.55	11.36		
ø	Participation in	Yes	107	30.83	1.06	6.94	Significant	
0	sports and games	No	268	32.39	3.79	0.04	Significant	
	Participation in	Yes	79	39.82	2.87			
9	extra curricular activities	No	296	42.43	3.41	6.54	Significant	

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## **Hypothesis Verification**

Each of the independent variables exerts a significant influence on attitude towards discipline among Higher Secondary Students.

It is revealed that all the nine variables used in the current study are found influencing higher secondary students' attitude towards discipline. **Hence hypothesis is Accepted.** 

## Conclusions

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The major conclusions arrived at from the study are listed below

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- 1. Higher secondary students' Attitude towards discipline is found above the average level.
- 2. The Attitude towards discipline among the Higher secondary students is found dependent upon
  - Gender
  - Standard
  - Tuition undergoing
  - Medium of instruction
  - School locality
  - School kind
  - School management
  - Participation in sports and games
  - Participation in extra curricular activities
- 3. The Attitude towards discipline among the Higher secondary students is found higher among the students
  - who are female than male
  - who are XI standard than those who are XII standard
  - who undergo tuition than those who do not undergo tuition

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- who belongs to Tamil than English medium
- who belongs to rural schools than urban
- who belongs to mixed schools than unisex
- who belongs to Govt./Aided schools than private
- Who do not participate in sports and games, than those who participate in it.
- Who do not participate in extra curricular activities than those who participate in the same.

## **Educational Implications**

This study states that attitude towards discipline among higher secondary students is found low among the male students, those who are studying XII standard, those who do not undergo tuition those who belongs to English medium, those who belong to rural schools, those who belong to unisex schools, those who are studying in government and aided schools, those who are participate in sports and games and those the participants in extracurricular activities than their respective counterparts. To improve the attitude towards the discipline the school has to provide leadership activities headed by the students, train to organize small programmes in the school premises, provide responsibilities to take care of lower class students.

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## **TEACHING AND LEARNING USING TECHNOLOGY**

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#### Abstract

Education may be defined as a process of giving or receiving systematic information, especially in school/ University. It may also be said as the action or process of teaching someone or Learning and gaining knowledge. Though computers are available in the classroom from early 1990's, the use of it to obtain meaningful learning outcomes from the learners is lacking. The 21st Century has witnessed a leap and bound growth in the Information Communication Technologies (ICT) which has completely changed the learning and teaching process of today than it existed five years ago. This paper throws light into the various teaching and learning technologies for obtaining necessary learning outcomes with special context to the Indian scenario and the explains the initiatives of the Government of India for Digital Education.

Keywords: ICT, IT, Digital Education, E-Learning, OER

#### Introduction

In today's world information and communication technology (ICT) is a key parameter for economic development. The IT sector has helped to scale up India's image to a global IT sector and has been a driving force for higher education. In the year 2013 the revenue of the Indian ICT sector was valued at USD 108 billion and the same is expected to reach the USD 225 billion by the year 2020. The technological advancements in the Indian IT industry is currently at the peak of its technology revolution with the convergence of cloud computing, social media, and Big Data analytics. Earlier, technology was helping businesses transform whereas today, the technology is leading business transformation to next level. Significantly, 45% of India's population is under 25, which should boost computer and IT usage.

ICT can be effectively utilized to get better outcomes for the education sector. Education here includes traditional face-to-face, open and distance, online, and part-time education. There is a wide range of applications of ICT in the real world which are unlimited. ICT can play a great role in both formal and non-formal system of education. Teaching is imparting knowledge or skill whereas learning is skill acquisition and increased knowledge. The huge population of India can be effectively reached by the usage of ICT. Recently there has been a paradigm shift in the curriculum where teacher acts as a facilitator or a guiding factor in a student-centered learning environment. In a Student-centered learning environment, the focus is on the student's needs, their abilities, interests, and learning styles with the teacher as a facilitator of learning. Here students are the sole responsible participants in the learning process. In Conventional education, the teacher has the key role whereas in case of ICT based education, various ICT tools are supplemented to make the teaching-learning process effective.

#### **Tools Used For ICT Teaching And Learning**

Worldwide research has shown that ICT can lead to improved student learning and better teaching methods. A report of the National Institute of Multimedia Education in Japan, proved that, an increase in student exposure to educational ICT through curriculum integration has a significant and positive impact on student achievement, especially in terms of Knowledge Comprehension, Practical skill and Presentation skill in subject areas such as mathematics, science, and social studies.

Broadly, ICT in education can be defined as "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information". The technologies includes the use of computers, the Internet, radio and television, and telephone communication etc. It should be understood that information and communication or ICT singularly does not generate learning. Rather, it is a tool that can be effectively utilised to enhance, improve and complement learning-skills already in use that is the conventional methods of pedagogy that have been used so long.

Until the end of 20<sup>th</sup> century, the teaching – Learning process was struggling for the integration of Technology into it, whereas the dawn of 21<sup>st</sup> century, the focus has shifted to Technology – enabled teaching/ learning.

## Technology Enabled Teaching/Learning - Merits And Demerits

Every system and Technologies has its own merits and de-merits with respect to the stakeholders. The merits of the ICT enabled Teaching-Learning process is: most of the time teaching through ICT uses images which improves the retentive memory of students. Through ICT, teachers can easily explain difficult instructions and ensure students' comprehension. Through ICT, teachers can create interactive classes and make the lessons more enjoyable, which could improve student attendance and concentration on the subject of study.

The demerits of this type of teaching-learning process is that setting up the devices can be very troublesome, it may at most of the time too expensive to afford, and it will be hard for teachers to use the technology with a lack of experience using ICT tools.

## The Technologies Used

The process of teaching and learning takes place by the use of various types of technologies. The list of technologies are endless, here the major and emerging technologies used in India are discussed.

(i) Audio/ Video Learning: Among the first ICT resources to be used in India was the radio, where educational programmes started being broadcast as far back in 1937, known as the School Broadcast Project, simultaneously from Delhi, Bombay, Calcutta and Madras. However, due to the regional disparity in school curricula, this project was not successful in the long run.

#### Two Day National Conference on QUALITY EDUCATION FOR ALL - A SEARCH FOR IDENTITY

Video-based training is one of the ICT enabled trends of today. This is due to increasing reliance on technology for training. According to an article in trainingmag.com, more than onethird of workplace education and training is technology-based. Videos are one of these technology-based training tools. They visually explain to learners what they need to learn. The content of the training are shown as pictures and words in Video-based training. Another reason why videos are an effective training tool is the pictorial superiority effect; as per this effect, the pictures and images are better remembered than just words and this indicates how videos can be effective. Videos are effective training tool for Soft skill development and Language teaching apart from its use for practical demos.

(ii) E-Learning/ E-Content: A learning system based on formalised teaching but with the help of electronic resources is known as E-learning. The Government of India (GoI) is a strong supporter of e-learning and the Department of Electronics and Information Technology (DeitY) has been actively developing tools and technologies to promote it. The teaching-learning process can take place either inside a classroom or out of the classrooms, the use of computers and the Internet for this process forms the major component of E-learning. E-learning can also be termed as a network enabled transfer of skills and knowledge, and the delivery of education is made to a large number of recipients at the same or different times.

(iii) Smart Classrooms: Smart Classrooms are technology enhanced classrooms that foster opportunities for teaching and learning by integrating learning technology, such as computers, specialized software, audience response technology, assistive listening devices, networking, and audio/visual capabilities. The Smart Classroom is physically built in a separate room of all-encompassing Computing Lab in which several video cameras, microphones are installed in it to sense human's gesture, motion and utterance. In a smart classroom, two wall-sized projector displays are mounted on two vertically crossed walls. These boards are called "Media Board" and "Student Board" separately. The Media Board is used for lecturer's use as a blackboard, on which prepared electronic courseware and lecturers' annotation are displayed. The Student Board is used for displaying the status and information of remote students, who are part of the class via Internet.

(iv)Open Education Resources: The term Open Educational Resources (OER) was first introduced at a conference hosted by UNESCO in 2000 and was promoted in the context of providing free access to educational resources on a global scale. Open Educational Resources (OER) are teaching and learning materials that are freely available online for everyone to use, whether you are an instructor, student or self-learner. The OER may be of the following forms, namely, full courses, course modules, syllabi, lectures, homework assignments, quizzes, lab and classroom activities, games, simulations, and many more resources available as digital media collections from all around the world.

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(v) Virtual Reality for Learning: Virtual Reality (VR) has been used as education tools for some time in the applied fields such as aviation and medical imaging, and it has also been used in schools and colleges in the recent years. One of the main reasons why VR has been used for educational and training purposes is the support of high interactivity and the abilities to present a virtual environment that resembles the real world. With this technology, learners can explore and manipulate three-dimensional (3-D) interactive environment. However, VR is just an educational tool which can be used to support learning, which might not work for all kind of learning.

(vi) Augmented Reality for Learning: Augmented Reality (AR) is alike to virtual reality in the sense it provides learners a simulated environment. However in AR, the situation the learner is in is taken into account, and relevant information is superimposed on the learning context. The superimposed information has an impact on the visual and auditory fields of the learner, which enhances his sensory experience. AR goes further than the simulated learning experience VR offers. It brings the real and digital worlds together. It creates an immersive and interactive experience where the learner enjoys a multi-sensory experience. This creates a better learning experience. With AR, the learner can follow on-screen instructions, view layered graphics, see complex processes, or be given instructions to do a certain task. This makes the training experience more realistic.

(vii) Gaming environment for learning: The creation of gaming environment for learning or other activity is generally called Gamification. It is an educational approach which motivates the students to learn by using video game designs and game elements in their learning environments. The goal is to maximize enjoyment and engagement through capturing the interest of learners and inspiring them to continue learning.

## Initiatives of the Government of India

Government of India is keen and it focuses on digital education. Some of the State Governments in India, like Tamil Nadu and Uttar Pradesh, have made laptops mandate for all school children and the Government is supplying the same to the students at free of cost. This has created a massive rise in the demand for laptops and other computer hardware peripherals.

The use of technology to maximize the student learning experience is a vibrant area of interest across all tiers of global education. Technology enhanced-learning (TEL) is often used as a synonym for e-learning but can also be used to refer to technology enhanced-classrooms and to learn with technology, rather than just through technology.

The Government of India is keen to use the technological resources in helping its mission to make Higher Education accessible to all deserving students. In this regard, it launched its National Mission on Education through Information and Communication Technology (NMEICT) in 2009 to provide the opportunity for all the teachers and experts in the country to pool their collective wisdom for the benefit of every Indian learner and, thereby, reducing the

digital divide. It is obvious that emphasis on ICT is a crying need as it acts as a multiplier for capacity building efforts of educational institutions without compromising the quality.

NMEICT is not oriented towards school and college/university-level education, but also ambitiously aims at providing more than 50 crores working population with a one-stop solution for all their learning needs. One of the prime objectives of this mission is effective utilisation of intellectual resources, minimising wastage of time in scouting for opportunities or desired items of knowledge appropriate to the requirement.

There are many web portals and projects launched and implemented by the Government of India for promoting digital-education and to achieve the target stated in vision of India 2020 which states that, by 2020 at least 50% of University age learners will receive higher education. In the following sub-section, the various web portals of GOI will be enumerated.

(i) NPTEL: National Programme on Technology Enhanced Learning(NPTEL) is an initiative by seven Indian Institutes of Technology (IIT Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and Indian Institute of Science (IISc) for creating course contents in engineering and science. This portal contains materials for E-learning through online Web and Video courses in Engineering, Science and Humanities streams. The mission of NPTEL is to enhance the quality of Engineering education in the country by providing free online courseware. (http://nptel.ac.in/)

(ii) Virtual Labs: The objectives of the Virtual Labs portal is to provide remote-access to labs in various disciplines of Science and Engineering. Students of undergraduate level, post graduate level as well research scholars can make use of Virtual Labs. It shares costly equipment and resources, which are otherwise available to a limited number of users due to constraints on time and geographical distances. (http://www.vlab.co.in/)

(iii) Spoken Tutorial: The Spoken Tutorial project is the initiative of the 'Talk to a Teacher' activity of the National Mission on Education through Information and Communication Technology, launched by the Ministry of Human Resources and Development, Government of India. It provides audio and video tutorial and is developed as Open Source Software. (http://spoken-tutorial.org/)

(iv) e-Yantra: e-Yantra is an initiative to incorporate Robotics into engineering education with the objective of engaging students and teachers through exciting hands-on application of math, computer science, and engineering principles. An initiative by IIT Bombay that aims to create the next generation of embedded systems engineers with a practical outlook to help provide practical solutions to some of the real world problems. (http://e-yantra.org/)

(v) Project OSCAR: Project OSCAR (Open Source Courseware Animations Repository) provides a repository of web-based interactive animations and simulations, that we refer to as learning objects (LOs). These learning objects span topics in science and engineering at the
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college level, and maths and science at the school level. Students and teachers can view, run and download these learning objects.

(vi) E-Kalpa: This project on 'Creating Digital-learning Environment for Design' also called 'e-kalpa' is sponsored by the Ministry of Human Resources, Government of India as part of the NMEICT. (http://www.dsource.in/)

(vii) Virtual Learning Environment (VLE): It is an online environment of e-resources which caters to several disciplines at undergraduate and postgraduate level. It is an initiative of Institute of Life-Long Learning, University of Delhi. Started in 2012, VLE today boasts state of the art material that addresses emerging needs of a diverse student body, not only of Delhi University but other Universities as well. Drawing from several successful Moodle models, the multi-media interactive contents loaded on VLE are categorised discipline-wise. (http://vle.du.ac.in/)

(viii) E-Pathshala: E-Pathshala is a portal jointly initiated by Ministry of Human Resource Development, Government of India and National Council of Educational Research and Training launched in November 2015. It provides school student's access to e-text books, supplementary books and other e-resources like audios, videos, interactive, question banks etc. (http://epathshala.nic.in/)

(ix) Ekalavya: The ekalavya portal aims at a free exchange of knowledge and ideas, by placing all the relevant academic material in the Open Source, thus making a considerable contribution to society. It is envisaged that, the ekalavya project will become an all-encompassing activity over the years, using IT effectively for education. It aspires to build large collaborative communities where seekers/learners are matched by the providers of education. (http://ekalavya.it.iitb.ac.in/ekalavyaHome.do)

(x) SWAYAM: Study Webs of Active-Learning for Young Aspiring Minds Making (SWAYAM) is an instrument for self-actualisation providing opportunities for life-long learning. Here learner can choose from hundreds of courses, virtually every course that is taught at the university/college/school level and these shall be offered by best of the teachers in India and elsewhere. If a student is studying in any college, he/she can transfer the credits earned by taking these courses into their academic record. If you are, working or not working, in school or out of school, SWAYAM presents a unique educational opportunity to expand the horizons of knowledge. It is a MOOCs (Massive Online Open source Courses) of India which ranges from Certificate level to Post graduate level Programmes. (https://swayam.gov.in/)

## Conclusion

The use of Technology in Education (both teaching and learning) will empower learners for self-growth and higher quality of living. The teachers and the learners are to be given awareness about the existence of large number of avenues for their self-appraisal which in turn will uplift the society and the Nation as a whole. Learning will become an integral part of instruction at all levels; Virtual classroom and self-learning (using networks and websites) will get strengthened in India. Educational management systems will become more sensitive, open, transparent and learner friendly and will focus on to provide academic support to students. By utilising all the facilities and resources, the overall vision of Education – 2020, to create a learning and knowledge society will become a fact and India will become one of the developed Countries in the World.

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# INFORMATION AND COMMUNICATION TECHNOLOGY IN EDUCATION: USE OF ICT IN COMPUTER SCIENCE TEACHING

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#### Abstract

ICT, the term is generally accepted to mean all devices, networking components, applications and systems that combined and allow teacher and student communities to interact in the digital world. Information and Communication Technologies refers to technologies that provide access to information through telecommunications, it is similar to information communication technologies which includes the Internet, wireless networks, cell phones, and other communication mediums. In the past few decades, information and communication technologies have provided education with a vast array of new communication capabilities. For example, all the teacher educator communities can utilise ICT to teaching and learning, most colleges and schools using technologies such as multimedia presentation, smart class, e-learning methods, instant message, audio, video-conference. ICT is often studied in the context of how modern communication technologies affect education. Information explosion is an ever increasing phenomena therefore there is need to get access to this information. Education should meet the needs of variety of learners and therefore IT is important in meeting this need. It is a requirement of the society that the individuals should posses technological literacy. Basically teaching must include two major components source and destination. Ultimately, a teacher tries his best to impart knowledge. So, any communication methods that serve this purpose without destroying the objective could be considered as innovative method in teaching and learning, one of the significant instructional applications of computer is CAI. CAI means "computer assisted instruction". In CAI activity of the learner is most important attribute, it can be used in formal and non-formal education at all levels. The use of innovative methods in educational institutions has the potential not only to improve education, but also to empower pupil, strengthen governance and galvanize the effort to achieve the teacher educator development .An overview of ICT within teacher education: programming, writing, language arts, Instructional aides, teaching computing, graphics, evaluation and development. Your teaching information and communication technology (ICT) systems should be working to make your teaching more effective and efficient; however this is not always the case. These are becoming a more familiar feature of equipment in school. Using ICT can facilities and extend ways of working which are inclusive and have always been considered good practice for teaching and learning. Thus in this paper an attempt has been made to discuss the use of information communication technology in computer science teaching.

### Introduction

"Information and Communication Technologies." ICT refers to technologies that provide access to information through electronic communications. It is similar to Technology; this includes the Internet, wireless networks, cell phones, and other communication mediums. In the past few decades, information and communication technologies have provided with a vast array of new communication capabilities. The pupil can communicate to teaching and learning using technologies such as gathering information for computer science teaching. The innovative method of teaching that ICT is often studies in the context of how modern communication technologies affect teaching and learning community, so the information and communication technology use for us.

## Information and Communication Technology

Information and communications technology uses a combination of text, graphics, sound and video in enhancing the learning process focuses on how to best programs, that is professionals need to know about existing applications, how they interact, how they are best used and how to troubleshoot problems between teaching and learning.

## Significance of Information and Communication Teachnology in Education

The internet has become an integral part of every individual's life. Even in schools, colleges, and universities the use of internet has increased at an alarming rate. ICT-Information and communication Technology has given wings to empower the use of technology related activities in the world of education particularly teaching of computer science. There is a negative image of ICT on the minds of many people and to eliminate that impact, schools play an important part because of widely uses for teaching learning. ICT, we call it 'multimedia' has a positive side that helps to increase the knowledge of the student and teacher. Nowadays, when schools are transforming themselves into smart schools, where the role of ICT has been skyrocketing, monitoring the critical part of ICT in education, the education ministers or administrators must be sufficiently insightful in actualizing the methodologies to enable ICT in supporting the educating, for teaching and learning process in the school, college, and university. ICT is the sprout of the education activities, as well as it will be the secondary alternative to enhance the powerful and important education systems to all our learning and teaching environment.

# Recent Trends of Information Communication Technology to Teaching of Computer Science

ICT can be use in many different ways, and how it is integrated into educational settings depends largely on teacher's instructional goals and strategies. Changes in the goals of education during the latter part of the twentieth century, coupled with increases in Computers and Internet connections are becoming widely available in schools, colleges and university classrooms one or more computers in their classrooms. Similarly having access Internet connections are also widespread with schools, colleges and university classrooms. Recently many educational institutions are making the of information and communications technology an important priority to teaching of computer science. Even in India use of ICT becomes more widely, the computer science teachers and student teacher understanding how to make this technology into computer science teaching environments.

The use of technology, the pupil can dominate from other followed by use multimedia. After use of ICT in teaching of computer science, the students will learning alone to complete all their studies because of information and communication technology are available in all classrooms for teaching of computer science. Vol. 6

#### **Computer Assisted Instruction (CAI)**

A self-learning technique, usually offline and online, involving interaction of the student with programmed instructional materials. Computer-assisted instruction (CAI) is an interactive instructional technique whereby a computer is used to present the instructional material and monitor the learning that takes place.CAI uses a combination of text, graphics, sound and video in enhancing the learning process. The computer has many purposes in the classroom, and it can be utilized to help a student in all areas of the curriculum. So this is more useful to teaching of computer science.

#### **Types of Computer Assisted Instruction**

CAI has different types that is Drill-and-practice, Tutorial, Games, Simulation, Discovery, and Problem Solving

### **Benefits of CAI**

CAI brings several potential benefits as teaching and learning medium. These include selfpaced learning, self-directed learning, the exercising of various senses and the ability to represent content in a variety of media. With self-paced learning, learners can move as slowly or as quickly as they like through a program. If they want to repeat some task or review some material again, they can do so as many times as they choose. The program will not tire or complain about repetitions. Learners can skip over a topic if information is already known, making the learning process more efficient.

#### Advantages of Cai

- One-to-one interaction
- Great motivator
- Freedom to experiment with different options
- Instantaneous response/immediate feedback to the answers elicited
- Self pacing allow students to proceed at their own pace.

#### Conclusion

The adoption and use of ICT in education have a positive impact on teaching and learning of computer science. ICT can affect the education and enable wider access to the same. In addition, it will increase flexibility so that can access the education regardless of time and geographical barriers. It can influence the way teacher educator are taught and how they teach, it would provide the rich environment and motivation for teaching learning process which seems to have a profound impact on the process of learning in education by offering new possibilities for learners and teachers. These possibilities can have an impact on student performance and achievement. Similarly ICT can foster better teaching and improved academic achievement of students. So this paper an attempt has been made to discuss the use of information communication technology in computer science teaching.

#### **Shanlax International Journal of Education**

# MULTICULTURAL ISSUES RELATED TO EDUCATION

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#### Abstract

Classrooms are becoming increasingly multicultural and this leads to new challenges for teachers. Traditionally, students coming into the multicultural classroom are at a deficit because they must learn how to navigate unfamiliar people, their cultures, and language. Thus, teachers have the added responsibility of leading students through this unfamiliar territory towards achievement. This requires specialized learning techniques, practice, and education in order to effectively accomplish. Teachers who unite classrooms with activities both inside and outside of the classroom stand a better chance at boosting student achievement and ameliorating the negative effects that have been observed in multicultural classrooms in the past.

### Introduction

Culture, schooling, and education are in democratic multiculturalism approaches of teaching, learning and education programs. Though there may be several advantages of multiculture education there are some serious drawbacks too. According to the National Association for Multicultural Education (NAME), multicultural education provides:

- 1) Helps students develop positive self-image
- 2) Offers students an equitable educational opportunity.
- 3) Allows multiple perspectives and ways of thinking.
- 4) Combats stereotypes and prejudicial behaviour.
- 5) Teaches students to critique society in the interest of social justice.

But this is not possible at all situations. So we can see how teachers and students are affected because of multiculture education and teachers role in overcoming this problem.

### **Reasons for Multicultural Education**

There are multiple reasons to study in a multiculture situation. Though some students adapt multiculture education since it develops their self-confidence, to meet diverse range of people, to make friends, to study and learn differently and to get to know about different culture but there are also some reasons who adapt multiculture education due to scholarship which include lists of international scholarships to study abroad in a particular country, scholarships to study a particular subject, and scholarships targeting particular groups of students, low education fees and due to large amount of people migrating from one place to another for their livelihood.

### Culture and Education

Education can have a profound impact on culture similarly culture can also have a profound impact on education. Societal culture is the combination of beliefs, customs, religions, arts, etc that exist in a constant state of flux in a society. Large societies most likely have multiple different cultures within them. Culture, as a whole, may also be defined as "the shared way of life of a group of people." Two definitions of the field include: the ways in which behaviours are shaped and influenced by social and cultural forces" and " members of various cultural groups who have different experiences that lead to predictable and significant differences in behaviour." Many psychologists namely VYGOTSKY, BRONFENBRENNER have suggested that environment and culture plays a major role in the growth and development of a child. Definitely if a child or an adult studies in a multicultural society it may come across several hurdles to attain success.

#### Possible Multicultural Issues Faced by Teachers

The teachers have to handle many situations inside a classroom including religious differences, gender-equity issues, children who have disabilities, children coming from single parent or same-sex households, and others and one of the main issues inside a classroom that affect the classroom environment is multiculture. This issue on hardly affect not only students but also teachers. One of the major difficulty the teachers face in culturally diverse students is reconciling or accomodating differing cultural orientations some of the issues faced by the teachers are given below,

**Teacher issues** - Professional education of teacher does not always include multiculturalism and teaching in a multicultural classroom can affect a teacher's confidence in themselves.

**Language issues** – With students having a language other than English as their mother tongue teacher may find themselves having to choose their words carefully especially when slang or profession specific language or concepts is used. Words such as plagiarism may not always be understood.

**Contextualising issues** - a lot of examples that are used in the delivery of content often relate to their (teacher) culture or living place. Not all students can understand these examples since they are not related to the culture where they are living. Language used also often has a close association with their culture.

**Teaching and learning issues** - Non-domestic students often prefer the face-to-face delivery of content instead of using a mediator. They often depend of the teacher and like to be told what to do/learn, not challenge the information given, instead of being an active learner and sharing their opinion or experience with the group or debating the content. It can be hard to decide the level of content to be delivered to a multicultutral group which can 'lead to a tendency to teach to the lowest level of domestic student'.

**Support and personal issues** - Students may have fled their home country or may have come here as a migrant. Whatever the cause of their arrival they may all experience unfamiliar environments causing home sickness, culture shock and grief for "lost" friends and maybe family. As such students can be faced with isolation leading to depression and affecting their study results.

**Group work** - Language difficulties and different expectations of group work by domestic and non-domestic students can make doing a task as a multicultural group daunting and difficult.

### Possible Multicultural Issues Faced by Students

**Language issue-** language plays a major role in communicating with people that too inside a school environment communication with his/her classmates, friends and teachers are very important. Since by using an unfamiliar language or a language with a different slang the student feels difficult to communicate.

**New environment-**As many psychologists suggested a suitable environment will provide a good education to students. The student might take enough time to adapt himself in a new environment and to mingle with people of different culture. Sometimes he/she can also be affected by some diseases due to change in environment.

**Low academic results-**As stated above due to lack of communication and due to lack of adaptability in the new classroom environment the student suffers to score good mark and directly affects the student academics initially. This situation can further change or may not.

**Hesitation in classroom activities-** The student may less actively participate in classroom activities like group discussions, group activities, group work and cultural activities. This less/none participation of students in classroom/school activities affect the overall development of the child. It's very difficult for him to shine in other fields except academics.

**Depression-** consider if there are bullying or any type of harassment prevails in the classroom/school environment this may further affect the students studies and development and leads to depression.

#### **Teachers Role in Overcoming Multicultural Issues**

**Teacher strategy** -For teachers to be able to assist their multicultural students as best as possible teachers need to know about their associated backgrounds, the struggles these students may have with the English language, possible learning difficulties and how best to deal with these students with tolerance or discrimination. Background information about culture specific rules in regards to behaviour, non-verbal communication and personal space can be handy information to have for every teacher as well as policies on how to manage diversity.

**Language strategy** - It is important for the teacher to know if the problem is related to the student's limited English language or their ability to comprehend. Slowing down the delivery of

teaching will provide students with an opportunity to digest what is being said. Having the content as a handout will provide students with a reference in case they require clarification. Jargon, acronyms and local jokes are best to be avoided.

**Teaching and learning strategy** - International students can contribute professionally and culturally to any class. Ensure the students understand that asking the teacher a question is not seen as challenging the teacher's knowledge or authority. Material should be made relevant to all students regardless of where they were born.

**Support and personal strategy** - teachers should be sensitive to any additional pressures which may be put on immigrants and be aware of any risk factors, e.g. isolation from other family members, lack of socialisation from mainstream culture, adjusting to climate change, mental health issues. To be able to provide a holistic experience for the international student support services need to be available and need to be known to teachers so that they, due to their direct contact with the student, can guide the student in the right direction.

Additional tutorials either in the specific topic or supporting topics, such as study skills, can be offered to international students.

**Group work strategy** - Working in small groups may provide a safe environment for nondomestic students and more time may need to be allocated when group work is to be done by a group of multicultural and domestic students.

**Teaching the benefits of Multicultural education**-If students are suffering due to multiculture education it is the teacher's duty to overcome their difficulties by teaching them the values and benefit of such education system to the students. The only motive of teachers should not only make the students shine in their academics but also to bring a overall development.

## Conclusion

Thus, education in the multicultural classroom should focus on the value of multiculturalism and skills that contribute and encourage students to have trust amongst one another and their teachers. Education must quickly adapt to a new cultural and educational environment, and teachers should develop their academic skills. The students should understand the importance of multiculturalism so they are able to make smart decisions and practice in the future. Acclimation and awareness of multiculturalism in the environment are important because this practice and awareness introduces new thoughts and ideas to students. Also, teachers can reduce issues in the multicultural classroom through improving their teaching approaches and learning. Flexibility is more important than knowledge in dealing with multicultural issues. Therefore, teachers should explore the issues in the multicultural classroom as they arise and deal with these problems. Also, teachers should try to find, create, or design manners to raise and improve the academic achievement of students, and to build an effective or strong relationship with students.

# INCLUSIVE AND QUALITY EDUCATION FOR CHILDREN WITH SPECIAL NEEDS

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#### Abstract

#### "The true development of a Nation is developing together without exempting anybody"

It is the right of each and every child to have access to the quality education, and while efforts to increase learning in schools are critical, they should not come at the cost of excluding them with disabilities. The destiny of disabled children can be changed by adding them to the mainstream education through which we can change the destiny of nation too. Inclusive education is the tool that can bring the children with special education need into brighter side of the world from the dark. By giving a quality education to the children with disabilities will provide them the opportunity and strength to make their life on their own. In this paper, we have discussed the need for Quality education and stressed the need of those youngsters with special educational needs. **Keywords:** Quality education, Children with special needs, Inclusive education,

#### Introduction

Achieving the academic fulfillment and career success became the end goals of human life. But when did that start? Is this what we really want to achieve as a society and as individuals. Education is only good if it helps our children to succeed outside the school, in having good careers and happy lives.

India is the second largest populated country which consists an overall of 17% of world population. While the population rate goes on increasing poverty made a team with the population rate is increasing. To make the nation as a developed country it is our duty to eradicate poverty from the nation. Offering education to the masses in poverty to get a job instead of being an unskilled labor is the conventional way of thinking to get the people out of poverty. Providing Quality education for all will lead the nation in a development path. While speaking about education we have to consider all kind of students without exempting the students with special educational needs.

#### **Children with Special Needs**

They're children who face difficulty in learning due to some disability or combination of disabilities. Special-needs person includes those who have:

- Mental Retardation it causes them to mentally develop more slowly than other children.
- Speech and Language Impairment includes some problems like late or misunderstand to express themselves or understanding others.
- Physical Disability vision problem, cerebral palsy, or other conditions.

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- Learning Disabilities this will misrepresent messages from their senses.
- Emotional Disabilities It may cause antisocial or other behavioral problems.

Children with special needs may have slight learning disabilities or deep cognitive impairment; they may havean illness or food allergies. A child's special needs may include mental developmental delays that catch up quickly or remain embedded.

### Importance of Focusing Children with Special Educational Needs

Even today Education is an unfulfilled dream for millions of school going children who cannot read or write. While tackling this learning crisis world has to simultaneously focus and take actions in bringing the children with disabilities and other disadvantages into school for the betterment of the individual as well as the humanity.

According to the International Labor Organization, around the world individuals with disabilities to be of working age is nearly between 785 to 975 million, but most do not work. While there is some individual success, but as a group, they often face unequal poverty and joblessness.

There is a risk of losing future by a number of defenseless children due to their disability. In a 2015 July paper, "Towards a Disability Inclusive Education, there are 58 million out-of-school children at the primary level alone, an estimated one-third have a disability", said by a team of global expert. Developing countries across the world are starting to make progress in the right direction.

#### **Inclusive Education**

Inclusive education is a great tool which allows children with disabilities and without disabilities to sit and learn together in the same environment. Attending classes like this will make a drastic positive change among the children with disabilities. Instead of separating them from normal students allowing them to be with all and learn together will make positive attitude among the children with special educational needs.

According to Rick and Elliott, 2010, Over the past twenty years education has become a significant issue within the international development sector and likewise, the term inclusive education has grown to become a familiar term.

#### India Confronting Disability in Education

In bringing all the children into elementary school including the students with disabilities, the Right to Education Act (2009) - Sarva Shiksha Abhiyan program plays a vital role nationwide. The number of children who got an advantage due to the programme is larger than the population of the seventh largest country in the world, Nigeria. Today 90% of children with disability and special needs got enrolled in schools which is 6% higher than the enrollment level in the year 2012 to 2013. This is a total of 2.5 million children.

In addition, over 116,000 children with special needs receive home-based education under Sarva Shiksha Abhiyan. Identifying and serving the remaining offspring with special needs in India, and raising the quality of education for them is the biggest challenge which is ongoing.

Indian states are offering a great support to the disadvantaged children through thisinnovative programmes. In Bihar state's Jehanabad district, Kasturba Gandhi Balika Vidyalayas (KGBVs) – across the country for girls from underprivileged communities residential school facilities have been set up – now they are trying to help the girls with visual impairment to hook up with the lost learning.

A visually impaired girl named ReebhaKumari is now studying in the government mainstream upper primary education due to the intensive support from some of the teachers.

Another girl named, Gudiya Kumari, studying in Grade 7, describes her own early fears about going to school and what kind of teachers she would have to face. She recalls how the other girls due to curiosity surround them to know how they are managing without vision. "Progressively, they comprehended we are indeed proficient in studying," she says. This shows the positive development in India towards Inclusive education.

## Rights of Children with Disability to Quality Education

The First Inter-Agency Working Group (IAWG) Meeting promoting the Rights of Children with Disabilities to Quality Education was organized on Tuesday, 17 January 2017 at UNESCO House, New Delhi. The meeting was part of UNESCO's project 'Promoting the Rights of Children with Disabilities to Quality Education' under the United Nations Partnership to Promote the Rights of Persons with Disabilities (UNPRPD). UNESCO is one of the three partners of this Multi-Partner Trust Fund project working alongside UNICEF and MGIEP to support the full implementation of the United Nations Convention on the Rights of Persons with Disabilities (UNPRPD).

The main purpose of UNESCO's project has been to promote the Rights of CWDs to Quality Education through the effective implementation of the Rights of Persons with Disabilities Act (RPWD 2016), the Right of Children to Free and Compulsory Education Act (RTE, 2009) and the UNCRPD by facilitating the creation of focal points at different levels and sectors in the government through the formation of the IAWG as a coordination mechanism.

The meeting was attended by over twenty participants from diverse backgrounds working in the field of disability rights and included representatives from line ministries, government institutions, civil society organizations and UN agencies. It provided a platform to discuss how the different stakeholders can come together to work for the promotion of disability rights and support the Government of India in a realization of its vision set out in the national laws and the country's international obligations.

Speaking at the event, Mr. Shigeru Aoyagi, Director, and Representative, UNESCO New Delhi said that the creation of the IAWG is aligned to Article 33 of the UNCRPD that requires

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the Member States to establish coordination mechanisms within the Government and at different levels for facilitating related actions in different sectors. He remarked the meeting was taking place at an opportune moment as education and Rights of CWDs are a high priority on the national and international agenda. He further highlighted the country's achievement with regard to the recent passing of the RPWD Bill 2016.

The Government of India has been working closely with the UN family in India for preparing United Nations Sustainable Development Framework and inclusive quality education has been recognized as a top priority in the 2018-2022 agenda.

## **Role of Policies and Legislative Frameworks**

We have registered some of the International and National level policy frameworks which are relevant to quality education and education to children with disabilities.

**Constitutional Safeguards:** everyone has the right to equality of status and opportunity states our Constitution of India (26 November 1949) clearly. It ensures for all its citizens' equality before the law, non-discrimination and the right to life and liberty (Article 14, 15, 19 and 21 respectively of the Constitution).

Kothari Commission (1964–66): The Kothari Commission officially first addressed issues of access and participation by all. Irrespective of caste, creed, community, religion, economic condition and social status of the children there should be a common school system was stressed by the Commission.

**National Policy on Education (NPE) – 1986:** The NPE brought the fundamental issue of equality center stage. Requirements of the disabled children were clearly focused on section number 4.6 of the policy.

**Persons with Disabilities (Equal Opportunities, Protection of Rights & Full Participation) Act, 1995:**In India the Persons with Disabilities Act, 1995 is the most revolutionary legislation in the history of special education.

The Sarva Shiksha Abhiyan (SSA): SSA has been operational since 2000-01 in partnership with state governments to achieve the goal of Universalisation of Elementary Education. This adopts a ZERO rejection policy and uses an approach of converging various existing schemes and programmes.

## Conclusion

Lack of resources and trained teachers are sometimes pointed out as a barrier to giving inclusive education to children with disabilities. Removing the hurdles in accessing education and learning by the kids with disabilities are prerequisites for the realization of Education for All. Instead of being an obstacle the education policies and practice must include all learners to ensure every child has access to quality education. The way to prosperity for individuals and the society will be shown by Inclusive education. This prosperity will, in turn, lead to a more peaceful and sustainable development of humanity.

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# ANALYSIS OF PSYCHOLOGICAL BEHAVIOURS AND CHALLENGES AMONG THE B.ED STUDENTS OF THENI, TAMILNADU

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#### Abstract

For students, the changeover from secondary schools to higher education centres is a life challenge. It offers new chances for their psychosocial development, even though incoming into a new space may be a source of strain and serious stress. College is a new space and time period for the students-most of them in their late teenage age, substantially getting mature, and psychologically unstable. During this period, students are undergoing misperception and contradiction. There will be a lot of chances and tasks available in the colleges. This may lead to some struggles or conflict among the students and within the student. The unhealthy levels of stresses can have the capacity to hinder the students' capabilities to mingle and accomplish their academic goals. The psychological challenges are investigated and analysed under the topic "Analysis of psychological behaviours and challenges among the B.Ed students of Theni, Tamilnadu". The empirical study has been conducted over five B.Ed colleges in and around Theni with the proper questionnaire which consists of back ground variables namely socio economic, demographic variables and research variables namely depression, marital status and family dynamics and results are presented below. Key words: Psychological behaviours, Challenges, depression, marital status and family dynamics.

### Introduction

For students, the changeover from secondary schools to higher education centres is a life challenge. It offers new chances for their psychosocial development, even though incoming into a new space may be a source of strain and serious stress. College is a new space and time period for the students-most of them in their late teenage age, substantially getting mature, and psychologically unstable. During this period, students are undergoing misperception and contradiction. There will be a lot of chances and tasks available in the colleges. This may lead to some struggles or conflict among the students and within the student. The unhealthy levels of stresses can have the capacity to hinder the students' capabilities to mingle and accomplish their academic goals. Finding out such stresses and its causes to prevent it to become a threat to the students is very important. Most of the college students are facing academic stress to study, to complete their assignments, to contribute in various programs in the college, and the stress is because of the disproportion between environment and demand. According to **Porter**, most of college students did not finish their course and left the college particularly within first 2 years since of their inability to manage up with the situation. Steinberg and Darling mentioned that most of college students who visited for the mental health service reported the problems of nervousness, depression, problems related to the academics. A study conducted by Anson et al., found that anxiety was contrariwise related with grades obtained by the students. Academic

demands as well as family and work commitments, create tension and anxiety, and it may lead to mental health problems. When people experience stress, it affects their physical and psychological health. Studies testified that stress affects the psychological and physical health of students. Anxiety, depression, and anxiousness to perform better are correlated to the academic performance. It is also found that students who are from poor socioeconomic backgrounds will have financial problems which lead to depression, anxiety, and stress." It is also reported that students, who are from rural areas, are more prone experience stress, depression, and anxiety as compared to the students from urban areas. College students who are doing jobs due to economic imbalance are more prone to experience of mental health problems. The term psychosocial problems described as the maladaptive, unnatural, intrapersonal, expressive and behavioural states. If people experience psychosocial problems, it may lead to maladaptive, unhealthy interpersonal networks, human relationships, social connections, and social broken. If social support is not available for this issue, it harmfully hampers the mental health. Study conducted on psychosocial problems of youth were found to be associated with development of mental health illnesses especially depression, anxiety, substance exploitation, and psychosis also. In this study, the researchers intended to analyse the psychosocial problems among college students. Pathak et al., reported that when comparing with boys, girls are facing more psychosocial problems. Hence, here, the researchers tries to study is there any differences between girls and boys regarding the psychosocial problem.

## Rationale of the Study

College life is the most pleasurable time as well as time for psychosocial development in every person. Because of busy schedules, the new atmosphere in colleges, exams, inter personal relation with teachers and fellow students and late teenage age most of the students are facing some psychosocial problems such as nervousness, depression, and lack interest in studies. So, it is very important to evaluate and analyse to what extent these psychosocial problems are affecting the students and how they are varying by their gender differences. Hence, in this study, the researchers are attempting to trace out these information.

## Objectives

- To analyse the depression faced by the B.Ed students due to increase of work load in the syllabus.
- To analyse the martial status and its effects among the B.Ed students.
- To analyse the family dynamics in the family of B.Ed students.

### **Review of Literature**

Bland (1997) and Kessler (1995) conveyed that 20-40% of foremost depressive disorder cases meet criteria for a co-morbid diagnosis of Persistent depressive disorder (dysthymia). Bland

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(1997) reported life time prevalence rates of co-morbid depression and Persistent depressive disorder (dysthymia) range from 1.5-2.5% in general population.

**Weissman et al. (1996)** reported mean age of occurrence of depression ranges from 24.8 to 34.8 years while De Graaf et al. (2003) reported mean age of occurrence to be 29.9 years.

**Brown and Harris (1978), Kessler et al. (1998) and Weissman et al. (1993)** described depression occurs twice as normally in feminine adults as compared to males. Most fascinating is the fact that the existence is retreated in children, boys have higher rates of incident than girls. Kashavis et al. (1983), Angold and Rutter (1992), Cyronowski et al. (2000), found no gender modification exists in the occurrence of depression among preadolescent boys and girls.

**Shalu and Audichya (2006)** assessed and compared the school adjustment of 60 rural adolescents with reference to their emotional and social sphere. The sample consisted of 30 rural boys and 30 rural girls between the age group of 15-18 years studying in government co-educational school only. The adjustment inventory for school students constructed by Sinha and Singh (1984) which was modified by the investigator was used for data collection. They reported a significant difference was observed in social and emotional adjustment.

**Palsane (1970)** explored the role of health adjustment and parental education on personal adjustment on a sample of 85 students out of which 47 were boys and 38 were girls. The results revealed that students with good health were high in overall adjustment. He also reported that students with good parental education were better adjusted.

**Langner (1962)** conducted a study on health adjustment among rural and urban college students and conclude that rural students face more problems than urban students, especially girls.

**Cook (1995)** calculated that female students are found to demonstrate more adjustment problems such as establishing social relationship in college compared to the male students.

# Hypothesis

 $H_{01}$ - There is no significant between socio economic and demographic profiles of the B.Ed students and depression due increase of work load in the syllabus.

H<sub>02</sub>- There is no significant between socio economic and demographic profiles of the B.Ed students and their marital status.

 $H_{03}$ - There is no significant between socio economic and demographic profiles of the B.Ed students and their family dynamics.

## **Research Methodology**

Here in this study the researchers has carried out the pragmatic research using pure assessment method. The researchers has formulated the questionnaire and distributed the questionnaire among the B.Ed students and collected the information required for the study.

## Sample Area

Researchers has selected primary data from the 20 B.Ed students in and around Theni namely The Sourashtra college of Education, VPR college of education, Allocious college of education, Thiravium college of education, Kammavar college of education.

# Source of Data Collection

The researchers has utilized convenient sampling for the study because of the time limitation and comfort. The researchers has formulated the questionnaire both in English and Tamil for easy understanding of the candidates. The questionnaire consists of open ended, closed ended and multiple choice questions based on Likert five scale techniques. The Likert five scale multiple choice questions consists of choices namely not at all, somewhat, moderately, quite a lot, very much. The data were collected on 15<sup>th</sup> of December 2017.

# Sample Size

The researchers has collected data from one hundred (100) B.Ed students 20 each from 5 B.Ed colleges from in and around Theni as mentioned above.

# **Sampling Technique**

The researchers has used convenient sampling because of the following reasons and limitations.

- The research was carried out in the small level due to time limitation.
- In researchers has collected the data from the institutions were they are employed because some institutions were reluctant in providing the data and in some institutions internal examinations are in progress.
- Due to good influence in the institution in which they are employed made easy for them in data collection.

# **Tools used**

In this study researchers has used simple scoring technique and Chi-square ( $\chi^2$ ) test for analysis.

# Data Analysis and Interpretation

It is clear from the below table 1 that most of the respondent candidate belongs to feminine gender with 80 percent. By the means of religion most of the respondent candidates belongs to the Hindu religion 99percent. Most of the respondents are belonging to scheduled caste 74percent. Nearly all the respondent candidates belong to the age group of 20-25 with 99 percent expect one. Majority of the candidates are unmarried. By familial type more than half of the respondent candidates belong to joint family with 59 percent. Many respondent candidates have four members in the family with 39 percent.

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As per table 2 it can be visualized clearly half of the respondent candidates have two earning members in the family with 50 percent. By residential status more than half of the respondent belongs to rural area with 52 percent. Majority of the respondent belong to annual income and annual expenditure of Rs.2,00,000 to 4,00,000 with 93 and 95 percent respectively.

Gender		Reli	gion	Caste			Age		Ma St	arital Familial atus Type		Members in Fami		n Family					
Μ	F	Н	C	SC	DNC	MBC	BC	20-25	35-45	М	UM	J	N	Six and above	Five	Four	Three	Two	Six
20	80	99	01	74	05	07	14	99	01	11	89	59	41	06	10	39	34	08	03

Note: Each background variable equates to the total number as 100. The percentage and frequency resembles the same value since total is 100.

Table 2

Earning Members in the FamilyResidential Status						tial	Annual	Income	Annual Expenditure		
Three and more	Three	Two	One	R	SU	U	Rs.4,00,000 to 6,00,000	Rs.2,00,000 to 4,00,000	Rs.4,00,000 to 6,00,000	Rs.2,00,000 to 4,00,000	
01	03	50	46	52	44	04	07	93	05	95	

**Note:** Each background variable equates to the total number as 100. The percentage and frequency resembles the same value since total is 100.

Table 3

## Depression

	Th	ings Slov	wly			Fut	ure Hop	less		Reading Concentration							
VM	QL	MOD	SW	NAL	VM	QL	MOD	SW	NAL	VM	QL	MOD	SW	NAL			
0	15	36	35	14	12	13	0	25	50	14	26	27	21	12			
	Р	leasure J	oy			Making Decisions						Aspects of Life					
VM	QL	MOD	SW	NAL	VM	QL	MOD	SW	NAL	VM	QL	MOD	SW	NAL			
03	14	14	16	53	0	06	09	52	33	08	0	18	23	51			
	Wh	nile study	ying														
VM	QL	MOD	SW	NAL													
17	09	22	24	28													

**Note:** Each background variable equates to the total number as 100. The percentage and frequency resembles the same value since total is 100. VM-Very Much, QL- Quite Lot, MOD- Moderately, SW-Somewhat and NAL- Not at All.

The above table 3 clearly describes that many respondent candidates are moderately depressed followed by somewhat depressed with 36 percent and 35 percent respectively by the means of thinking slowly. By thinking future is hopeless 50 percent of respondent candidates are not at all depressed. Some candidates are moderately depressed followed by quite a lot with 27 and 26 percent respectively. More than half of the respondent candidates are not at all

Table 1

depressed followed by somewhat depressed with 53 and 16 percent respectively. Half of the candidates are somewhat depressed with 52 percent in case of making decisions. By aspects of life candidates are not at all depressed with 51 percent. Candidates are not at all depressed followed by somewhat depressed with 28 and 24 percent respectively.

	Agita	ted and n	noving	5	Fatigued						Simple Things			
VM	QL	MOD	SW	NAL	VM	QL	MOD	SW	NAL	VM	QL	MOD	SW	NAL
0	11	20	46	23	04	12	12	59	13	0	13	0	46	33
	Guilt	y and pu	nished		Failure					Dead and Alive				
VM	QL	MOD	SW	NAL	VM	QL	MOD	SW	NAL	VM	QL	MOD	SW	NAL
05	0	27	26	42	0	08	14	34	40	04	11	22	18	45
	Sleep	and Dis	turbed											
VM	OL	MOD	SW	NAL										

Table 4	4
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**Note:** Each background variable equates to the total number as 100. The percentage and frequency resembles the same value since total is 100. VM-Very Much, QL- Quite Lot, MOD- Moderately, SW-Somewhat and NAL- Not at All.

The above table clearly materializes that 46 percent of the respondent candidates are somewhat depressed in the case of agitated and moving around. In the case of fatigue more than half of the respondent candidates are somewhat depressed with 59 percent. Nearly half of the respondent candidates are somewhat depressed followed by not at all depressed with 46 percent and 33 percent in case of doing simple things respectively. Nearly half of the respondent candidates are not at all depressed in case of feeling of dead and alive, feeling guilty and punished and failure with 45, 42 and 40 percent respectively. In case during sleep and feeling disturbed 51 percent of respondent are moderately depressed.

Trapped and Caught				Depressed when good things happen					Weight loss or gain without dieting					
VM	QL	MOD	SW	NAL	VM	VM QL MOD SW NAL				VM	QL	MOD	SW	NAL
14	17	7     13     23     33     09     05     12     25     49     11     24     25     17     23							09 05 12 25 49					23

Table 4

**Note:** Each background variable equates to the total number as 100. The percentage and frequency resembles the same value since total is 100. VM-Very Much, QL- Quite Lot, MOD- Moderately, SW-Somewhat and NAL- Not at All.

The above table 4 illustrates clearly that 33 percent and 49 percent of the respondent candidates not at all depressed in case of feeling trapped and caught also by feeling when good things happen. 25 percent of respondent candidates moderately felt weight loss or gain without dieting followed by 23 percent are not at all feet weight loss or gain without dieting.

12

12

51

17

08



Takes great effort for me to do simple things

	I ubic 5				
Variables	Chi-square Value	Significant value			
Age	32.659	0.002			
Gender	09.604	0.726			
Caste	33.870	0.703			
Religion	11.616	0.559			
Marital Status	12.543	0.484			
Type of family	13.701	0.395			
Number of members in the family	64.788	0.484			
Number of earning members in the family	25.950	0.946			
Residential Status	31.642	0.793			
Annual Income	29.382	0.006			
Annual Expenditure	21.929	0.056			

Table 5

The above  $\chi^2$  results table 5 clearly portrays that the background variables like number of earning members in the family, residential status, gender, caste, religion, marital status, number of members in the family and type of the family are found to be associated with variables of depression and found to be statistically insignificant with the values 0.946, 0.793, 0.726, 0.703, 0.559, 0.484 and 0.395 respectively. Annual expenditure is the only variables with 5 percent significance with the value 0.056. Annual income and age are the variables which are significant at 1 percent significance with 0.006 and 0.002 respectively. None of the variables are found to be highly significant.

Table 6

								1 a									
	Fam	ily C	ommitı	nent		Eco	Economic status of the family					Time Management					
U	V	Q	MO	S	NA	U	V	Q	MO	S	NA	U	V	Q	MO	S	NA
Μ	Μ	L	D	W	L	Μ	Μ	L	D	W	L	Μ	Μ	L	D	W	L
87	0	04	02	02	05	87	05	01	01	03	03	87	01	03	05	0	04
H	usban	d and	l Wife 1	relatio	ons	]	Educa	tion a	after ma	arriag	e						
U	V	Q	MO	S	NA	U	V	Q	MO	S	NA						
Μ	Μ	L	D	W	L	Μ	Μ	L	D	W	L						
87	03	01	0	02	07	87	03	02	0	02	06						

## **Marital Status**

**Note:** Each background variable equates to the total number as 100. The percentage and frequency resembles the same value since total is 100. VM-Very Much, QL- Quite Lot,

MOD- Moderately, SW-Somewhat, NAL- Not at All and UM- Unmarried.

From the above table 6 it is clear that 87 percent were unmarried hence they were at maximum percent in all the variables of marital status. 5 percent of the respondent candidates felt that family commitment does not affect in studying B.Ed course. 5 percent of the respondent candidates felt that economic status of the family affects very much in studying B.Ed course. Some respondent candidates felt that time management moderately influences in studying B.Ed course with 5 percent. 7 percent of the respondent candidates felt that husband and wife relations do not have an effect in studying B.Ed course. 6 percent of the respondent candidates felt that education after marriage does not affect in studying B.Ed course.

Variables	Chi-square Value	Significant value	
Age	32.659	0.000	
Gender	03.053	0.931	
Caste	46.994	0.003	
Religion	00.150	1.000	
Marital Status	93.190	0.000	
Type of family	04.515	0.808	
Number of members in the family	56.061	0.047	
Number of earning members in the family	105.175	0.000	
Residential Status	62.215	0.000	
Annual Income	35.024	0.000	
Annual Expenditure	30.792	0.000	

Table 7

The above $\chi^2$  results table 7 mentions clearly that the variables such as religion, gender and type of the family are associated with marital status but found to be statistically insignificant with significant values 1.000, 0.931 and 0.808. Number of members in the family is the only variable that is found to be significant 5 percent level with the significant value 0.047. Caste is the only variable that is found to be significant 1 percent level with the significant value 0.003.

gender, type of the family, number of earning members in the family, caste, number of member	ers
in the family, marital status, residential status, annual expenditure and religion are found	to

Age, marital status, number of earning members in the family, residential status, annual income and annual expenditure are the variables that are found to be highly significant with significant value 0.000 each.

# **Family Dynamics**

QL

10

QI

Large number of family

members MOD

07

Partiality among siblings

MOD

SW

0

SW

NAL

80

NAL

Vol. 6

VM

03

VM

08	18	04	07	63	31	09	04	19	37				
Note:	Each	ı backgı	round	variab	le equ	lates	to the	total	number	as 1	00. The	percentage	and
frequ	ency	resembl	es the	e same	valu	e sin	ce total	is 1	00. VM	-Very	Much,	QL- Quite	Lot,
MOD	- Mod	leratelv,	SW-S	omewh	at and	l NAI	- Not at	t All.					

The above table clearly explains that majority of the respondent candidates those who felt large number of family members and expectation of parents does not affect the B.Ed course are accounted for 80 percent and 40 percent respectively. 30 percent of the respondent candidates felt that studying B.Ed course is moderately get affected in fulfilling family's basic requirements. Respondent candidates those who felt partiality among siblings and parenting style does not affect the B.Ed course are accounted for 63 percent and 37 percent respectively.

Table 9					
Variables	Chi-square Value	Significant value			
Age	04.931	0.993			
Gender	08.785	0.888			
Caste	42.737	0.568			
Religion	24.242	0.061			
Marital Status	15.458	0.419			
Type of family	12.854	0.614			
Number of members in the family	76.653	0.425			
Number of earning members in the family	41.816	0.608			
Residential Status	46.810	0.398			
Annual Income	26.443	0.034			
Annual Expenditure	16.526	0.348			

From the above  $\chi^2$  results table 9 it is clear that annual income is the only variable which is found to be significant at 5 percent level with the significant value 0.034. The variables like age,

have association with family dynamics but found to be statistically insignificant with the

Table 8				
Expectations of the p	arents			

MOD

12

Parenting style

MOD

SW

24

SW

NAL

40

NAL

VM

26

OL

08

VM

07

VM

OL

17

QL

Family's basic requirements

MOD

30

SW

11

NAL

25

significant values 0.993, 0.888, 0.614, 0.608, 0.568, 0.425, 0.419, 0.398, 0.348 and 0.061 respectively. None other variables are found to be significant at 1percent significant level nor highly significant.

# Findings

- 1. In case of depression number of earning members in the family, residential status, gender, caste, religion, marital status, number of members in the family and type of the family are found to be associated with variables of depression and found to be statistically insignificant.
- 2. In case of marital status religion, gender and type of the family are associated with marital status but found to be statistically insignificant.
- 3. In case of family dynamics age, gender, type of the family, number of earning members in the family, caste, number of members in the family, marital status, residential status, annual expenditure and religion are found to have association with family dynamics but found to be statistically insignificant.

# Suggestions

- 1. Here rises the opportunities for the universities, affiliating universities, autonomous colleges, deemed universities those who conducts the B.Ed courses to reduce the work load in order to decrease the depression that rises due to syllabus load.
- 2. The management institutions, aided colleges or other governmental or non-government institution those who run the B.Ed courses to create financial aid by providing scholarship by itself or any other funding agencies irrespective of caste or any other discriminations for those who are financially unable in order to overcome the financial stress.
- 3. Here is the chance for the institutions those who conduct B.Ed courses should take responsibility of ensuring employment opportunities with reasonable pay-scale in order to overcome the depression that comes on thinking about the future after education.
- 4. Here rises the possibility for the institutions to conduct counseling for the married candidates about the problem that rises that creates the hunch in studying B.Ed courses by marital relations regularly.
- 5. Here creates the prospects for the institutions to conduct regular parents meeting to find out the difficulties in the family while studying B.Ed courses any overcome it. And also regularly updating the progress report to their parents.

# Conclusion

It can be concluded that B.Ed students has the greater responsibilities of creating future India by creating knowledgeable, responsible, discipline, commitment and patriotic school and college students after completion of their B.Ed course. If the difficulties that raises among the

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B.Ed students due to depression, marital status and family dynamics, there is no doubt that the B.Ed course will stay everlasting in the academic field of professional education and lighting the lamps of knowledge and creating employment among the youths of the country and stand as the best example in the field of education.

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# FACILITATING WEB RESOURCES FOR TEACHING AND LEARNING MATHEMATICS AT SCHOOL LEVEL

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#### Abstract

In this paper discussed the facilitating and recognition of web resources for teaching and learning mathematics at school level. Online web tools and mathematics assets have through it easier for teachers to teach students and for students to work together with those teachers and with other students and parents. The web/online tools have the potential to be a significant resource in mathematics education. The variety and interactive nature of the materials available can make mathematics "real" and enable students to visualize mathematical concepts in ways that were previously not easily achieved. "Technology is important in teaching and learning mathematics; it influences the mathematics that is taught and enhances students' learning" (National Council of Teachers of Mathematics [NCTM], 2000). Also, many teachers lack the information of how to properly integrate technology in the classroom. Educational technology can make probable simple and more calculation and the visualization of mathematics situations and the relationships, allowing students to better than understand mathematical concepts in practice. Technology can be a tool for students to model mathematical relationships in real-world situations. With this connection, this paper deals with the facilitating web tools and mathematics web blogs for teaching and learning mathematics at school level.

Keyword: Web Technology, ICT in Mathematics Education, Web resources for teaching and learning, Web tools and Blogs

#### Introduction

Mathematics is the study of capacity, structure, space, and change. Mathematicians seek out patterns, formulate new conjectures, and establish truth by precise deduction from appropriately chosen axioms and definitions. Today, mathematics is used all over the world as a crucial tool in many fields. The functional mathematics from a branch of mathematics anxious with the deference of mathematical knowledge to other fields, and makes use of the new mathematical discovery and sometimes leads to the development of entirely new disciplines. Numerological is considered a submission of mathematics by various aspects of mathematics in that is holds a spiritual view of numbers. Mathematicians also use in pure mathematics or mathematics for its own sake, without having any purpose in mind, although practical applications for what began as pure mathematics are often discovered later.

### Integration of ICT/Web Resources into Teaching of Mathematics

Computers and web-based resources are very important and they helped their students to learn mathematics. Generally, most of them agreed that computers provide a visual illustration and 3D shapes, which helped them to understand more of what was going on. In addition, they thought it was very colourful and exciting for younger children, and they thought it might make them more excited about mathematics. In addition, some students agreed that integrating computers or Internet resources into teaching mathematics are important because we are moving into a technological age and computers provide an efficient way and variety of learning.

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Teachers appreciated the importance of integrating technology into teaching. When asked about whether they plan to integrate computers and Internet resources into their mathematics teaching, all of the students answered that they plan to use computers and Internet resources in teaching mathematics. Moreover, some students said that they would consider computers as a supplement to be used after lecturing to students. Other students said that they would use both computers and manipulative to teach mathematics in the future.

## Importance of Technology in a Mathematics Classroom

The importance of using technology to support mathematics learning is now widely recognized. The potential for digital technologies to enhance students' mathematics learning is widely recognized, and use of computers and graphics calculators is now encouraged or required by secondary school mathematics curriculum documents throughout Australia. However, the effective integration of technology into classroom practice remains patchy, with factors such as teacher knowledge, confidence, experience and beliefs, access to resources, and participation in professional development influencing uptake and implementation. Teachers who had participated in professional development were found to be more confident in using technology and more convinced of its benefits in supporting students' learning of mathematics. Experienced, expert mathematics teachers in large urban schools were more likely than others to have attended technology-related professional development, with lack of time and limited access to property acting as hindrances to many. Teachers expressed a clear preference for professional development that helps them meaningfully integrate technology into teaching to improve student learning of specific mathematical topics.

## Using Web-Based Resources in the Mathematics Classroom

There are a number of reasons why a teacher's power decide to use Web-Based resources in the mathematics classroom teaching, including: enhancing student learning, expenditure more time with students working in small groups or one-on-one, reducing repetitive teaching tasks, reducing paper flow and management, and providing improved instructional materials (Thirunavukkarasu, 2014).

The Web offers educational possibilities including: simplified creation, distribution and maintenance of educational materials; student-centred learning; multiple channels for educational participation; content reinforcement; easy access to current information; and multimedia presentation of content. An explicit reason of using the web: "One of the primary advantages of web use is that it appeals very much to the way our students now prefer to learn. They play, are entertained by, and learn with the computer. They tend to be more visual learners than previous generations because their world reaches in visual stimuli. They also thrive on interacting with the device. So it is fitting that we design learning materials and opportunities that capitalize on what we know about how our students prefer to learn."

Collection of opportunities that web provides to students: are responsible for their learning process and results; have the freedom to move from their environment to anywhere all over the world; have a choice of content, time, resources, feedback, and a variety of media for expressing their understanding; can explore existing resources and information according to their needs and interests; can construct their own knowledge by engaging students' thinking skills; can learn through exploring the foundations, justifications, decisions and value of a fact, principle, skill, or concept knowledge; have a choice whether actively participate in learning activities or just observe them in the background and meet their own specific needs in self-paced and self assessing environment.

# Scope of the Study

- Teaching and Learning Mathematics with visualizing the content
- Learning is promoted by all effects and sensitivity by the learner
- Teaching & Learning is promoted through web-based instruction
- Technology can be useful to the extent it focuses student thinking in ways that are germane, not extraneous
- Teachers are provided with much web-based leaning for the digital generation
- Paradigm shift form Text book learning to web based learning for the digital generation
- The web/online tool has the potential to be a significant resource in mathematics education.

# **Objectives of the Study**

- 1. To recognize web resources for teaching & learning mathematics at the school level.
- 2. To critically analyses the web resources, mathematics web tools and blogs.
- 3. To promote teaching & learning mathematics through web-based instruction.
- 4. Integration of ICT into teaching and learning mathematics classroom.
- 5. Discuses the web resources for teaching and learning mathematics through technology integration.

# Details on Web Resources for Teaching and Learning Mathematics Properties of Triangles

- 1. www.math.fau.edu/.../Tour Of Triangle Geometry/MAAFlorida37040428.pdf
- 2. http://www.bymath.com/studyguide/geo/sec/geo8.htm
- 3. http://mathworld.wolfram.com/topics/T riangleProperties.html
- 4. http://en.wikipedia.org/wiki/Congruence\_(geometry)
- http://www.teachertube.com/viewVideo\_Kennedy\_reviews\_some\_ right\_triangle\_problems
- 6. http://www.tripadvisor.in/Tourism-g60940-Triangle\_Virginia-Vacations.html

- 1. http://staff.imsa.edu/math/journal/volume4/articles/TriangleCenters.pdf
- 2. http://en.wikipedia.org/wiki/Median
- 3. http://www.winpossible.com/lessons/Geometry\_Medians\_and\_Midsegment.html

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- 4. www.teachertube.com/viewVid eo.php? video...triangle
- 5. http://www.mathleague.com/help/geometry/polygons.htm#triangles
- 6. http://www.tutorvista.com/ks/geometry-formulas-for-triangles -angles

# Parallelogram

- 1. http://www.bymath.com/studyguide/geo/sec/geo8.htm
- 2. www.youtube.com
- 3. http://www.mathleague.com/help/geometry/polygons.htm#parallelogram
- 4. http://www.mathwarehouse.com/geometry/quadrilaterals/parallelograms/index.php
- 5. www.en.wikibooks.org/wiki/Geometry/Parallelograms
- 6. www.freemathhelp.com/images/lessons/parogram2.gif

# Quadrilateral

- 1. www.en.wikipedia.org/wiki/Quadrilateral
- 2. http://www.gogeometry.com/geometry/tangential\_circumscribed\_quadrilateral\_index\_th eorems\_problems.htm
- 3. http://theknowledgeex-change.com/Geometry3.pdf
- 4. http://www.onlinemathlearning.com/quadrilaterals.html
- 5. http://www.fotosearch.com/photos-images/quadrilaterals.html

# Trapezium

- 1. http://www.gogeometry.com/geometry/trapezoid\_index\_quadrilateral\_2\_side\_parallel.ht ml
- 2. http://www.youtube.com/watch?v=d8DAYzbmuBE
- 3. http://www.cliffsnotes.com/study\_guide/Properties-of-Trapezoids.topicArticleId 18851,articleId-18798.html
- 4. http://www.ixl.com/
- 5. http://www.tmwmedia.com/pdf/Geometry%20Wksht%2015.pdf

# **Isosceles Trapezium**

- 1. http://www.absoluteastronomy.com/topics/Isosceles\_trapezoid
- 2. http://en.wikipedia.org/wiki/Isosceles\_trapezoid
- 3. http://math.unipa.it/~grim/21\_project/21\_charlotte\_SaenzLudlowAthanasopoulouPaper. pdf

- 4. http://www.algebra.com/algebra/homework/Length-and-distance/Length-and-distance. faq.question.85404.html
- 5. http://2000clicks.com/MathHelp/GeometryTriangleIsoscelesTrapezoid.aspx

## Rhombus

- 1. http://www.gogeometry.com/geometry/rhombus\_rhombi\_diamond\_lozenge\_index.html
- 2. http://www.mathsisfun.com/rhombus.html
- 3. http://www.icoachmath.com/SiteMap/Rhombus.html
- 4. http://en.wikipedia.org/wiki/Rhombus
- 5. http://www.youtube.com/watch?v=3SE6tzEqnx0

## **Concentric Circles**

- http://www.youtube.com/results?search\_query=geometry+Concentric+circles+definition &search\_type=&aq= f
- 2. http://library.thinkquest.org/2647/geometry/glossary.htm
- http://images.google.com/images?hl=en&q=geometry+Concentric+circles+images&oq=& um=1&ie=UTF8&ei=dZmES8OrF4y\_rAeP\_\_naAg&sa=X&oi=image\_result\_group&ct=title& resnum=1&ved=0CBUQsAQwAA
- 4. http://images.google.com/search?hl=en&q=geometry+Concentric+circles+pd&aqi=&oq

## Mathematics Web Tools/Resources

Dynamic 21st century web tools to enhance a mathematical lesson. Mathematics web tools allow the learner to explore and experience math beyond the capabilities some notebook paper or a textbook engage them (Raj kumar; Hema, 2016). Let them explore before explaining or extend our lesson with these programs. The following some mathematics web tools are give below

GeoGebra	www.geogebra.org
Desmos Graphing Calculator	www.desmos.com
Fluidity Software, Inc.	www.fluiditysoftware.com
Sketchometry	www.sketchometry.com
Sketchup-3D for everyone	www.sketchup.com
Welcome to Data Games-Data Games	www.play.ccssgames.com
Explore learning	www.explorelearning.com
Math Resources	www.commoncoreconversation.com
Welcome to Math Playground	www.mathplayground.com
Cool Math	www.coolmath.com
Interactive Mathematics Miscellany and Puzzles	www.cut-the-knot.org
Illuminations: Welcome to Illuminations	www.illumination.nctm.org

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Wah Math Calua Va	www.Math Duahlana		
web Math - Solve To	ur Math Problem	www.webmam.	com
Edudemic		www.edudemic	.com
Classroom Activities	– Texas Instruments-US	www.education	.ti.com
Musing Mathematica	lly-Vines	www.musingm	athematically.blogspot.ca
Graphing Stories - 15	seconds at a time	www.graphings	stories.com
Real World Math Pro	blems	www.mathalicio	ous.com
Daily Desmos		www.dailydesn	nos.com
Lessons – Robert Kap	linsky-Glenrock consulting	www.robertkap	linsky.com
Building number sens	se one day at a time	www.estimation	n180.com
Visual Patters		www.visualpatt	ers.org
Math is Fun - Homew	vork Help	www.mathisfur	n.com

## Some Mathematics Web Blogs

Fawnnguyen.com	Fivetriangles.blogspot.com	Blog.mrmeyer.com
www.mathycathy.com	www.rndesigns.com	www.yummymath.com
blog.buzzmath.com	www.keycurriculum.com	community.prometheanplanet.com

## Conclusion

Mathematics has been a peculiar subject. The process of teaching Mathematics is still now crude. Mathematics should me made interesting especially teaching and learning mathematical concepts is being done in the conventional forms. Studies have proved that the teaching of mathematics has to be overhauled. This study has focused only few websites on learning mathematics. Only focus was given to school mathematics at secondary level, there are many mathematics web sites which are uncovered by the investigator. In that way, this small piece of work may throw right on web resources pertaining to mathematics and will help the teachers of mathematics to exploit these resources to innovate and promote teaching and learning mathematics successfully.

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- 8. Thirunavukkarasu, M. (2014). Identification of web resources for teaching and learning geometry at 8th standard level. *Conflux Journal of Education*, 1(1), 46-50.
- 9. http://jwilson.coe.uga.edu/texts.folder/tech/technology.Paper.html
- 10. http://www.educatorstechnology.com/2014/01/20-great-math-websites-for-teachersand.html
- 11. http://www.edudemic.com/top-10-free-math-resources-web/
- 12. http://www.hand2mind.com/resources/why-teach-math-with-manipulatives
- 13. https://www.merga.net.au/documents/RR\_loongwhi.pdf
- 14. www.ncert.nic.in/.../use%20of.

# INNOVATIONS AND BEST PRACTICES RELATED TO EDUCATION

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#### Abstract

Education has become competitive so as the educational institutions. To survive the competition, have to improve the quality of their services. Changes in culture, aspiration and levels of skills required in securing employment for students, force higher education institutions today to rework on their educational models and add value to every aspect of their service. Innovations and best practices serve to enhance quality and add value. Everybody has a different style of learning. We evolve our learning style based on the teaching style of the professor, books, the time we have and the way we remember things best. So I don't think it's worth the effort to teach a learning style via a MOOC (Massive Open Online Course). Taking and study the technology, one reason why a large mass of student shouldn't be taught and evaluated upon them, is that not every method works for everyone.

#### Introduction

MOOC (Massive Open Online Courses) is a new paradigm of education for anyone, anywhere, anytime. It came up with numerous opportunities both for students as well as teachers. In fact, education is going through a transformation. As the number of people attending Massive Open Online Course (MOOC) skyrockets; the number of students who will never set foot on campus grows as a consequence. That is comprehensively transforming students' learning experience, as well as their interaction with their peers and with educators. The word that a MOOC will be offered typically spreads through an online social network. A central web address may be used to consolidate a registration process, outline the suggested course schedule, and provide a connection for support and communication.

### The Role of MOOC

- Critical thinking the application of scientific methods and logical reasoning to problems and decisions is the foundation of problem solving and decision making.
- Critical thinking enables us to avoid common obstacles, test our beliefs and assumptions, and correct distortions in our thought processes.
- Gain confidence in assessing problems accurately, evaluating alternative solutions, and anticipating likely risks.
- Learn how to use analysis, synthesis, and positive inquiry to address individual and develop the knowledge needed in today's turbulent times.

#### Integration of Technology

Technology has changed education and how educators can leverage new educational tools to learning, encourage collaboration, and prepare students for the future. An online phenomenon gathering momentum over the past two years or so, a MOOC integrates the

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connectivity of social networking, the facilitation of an acknowledged expert in a field of study, and a collection of freely accessible online resources. Perhaps most importantly, however, a MOOC builds on the active engagement of several hundred to several thousand participation according to learning goals, prior knowledge and skills, and interests.

## **Innovative Practices**

A broad range of educational innovations technological, pedagogical, structural, and financial is playing an increasingly important role in supporting student persistence and degree completion in our national drive to increase postsecondary attainment. The Center for Education Attainment and Innovation is involved in some initiatives designed to better understand these innovations. Using an evidence-based approach, we help students, faculty, and institutional leaders identify the best suited to their unique needs.

# Strategies for the Early Learning Classroom

There are five strategies that can be implemented in early learning classrooms and beyond, to support children's long-term success with rigorous learning standards. The strategies range in complexity and commitment.

# • Practice PBL and Stem Within Community Partnerships

PBL (project-based learning) supports teachers in developing authentic learning experiences with a focus on inquiry-based instruction.

# • Engage in Purposeful Play

Purposeful play should be the central learning experience in early learning classrooms. It's a natural way of learning that supports creativity and imagination.

# Provide Opportunities for Student-Centred Constructionism

Turn your art centre into a mini-make space, as it abounds with DIY materials. Engage students in the design process by creating a visual poster about design steps. Think it  $\rightarrow$  2. Dream it  $\rightarrow$  3. Plan it  $\rightarrow$  4. Share it  $\rightarrow$  5. Make it.

# Read an Audible Manner with Great Noise

Bloom's Taxonomy is complex, so rather than tackling the content in its entirety, vet out ageappropriate question prompts and use them to guide your read-aloud conversations.

# • Participate in Picture-Book Philosophy

Picture books hold deep philosophical curiosities. Create a community of inquiry as a socialemotional tool to build a respectful discussion community.

# **Specific Pedagogical Issues**

- The extent to which it can support enquiry and the creation of knowledge.
- The breadth versus the depth of participation.
- Whether and under what conditions successful involvement can extend beyond those with broadband access and social networking skills.

• To impact the value of even peripheral participation, the extent to which it might contribute to participation in the digital economy in extra-MOOC practices.

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- Specific strategies to maximize the contribution of facilitators in particular and more advanced participants in general.
- The role of accreditation, if any, and how it might be implemented.

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# Best Practices for MOOC Technology

- 1. Deliver Instruction through Multiple Forms of Media.
- 2. Gather and Use Immediate Feedback on Students' Understanding.
- 3. Give Students Options.
- 4. Automate Basic-skills Practice.
- 5. Practice Independent Work Skills.
- 6. Create a Weekly "Must Do" and "May Do" List.
- 7. Pretest Students' Knowledge Before Each Unit.
- 8. Be Flexible When Plans Go Awry.
- 9. Let Students Drive.
- 10. Share the Work of Creating Differentiated Lessons.

# Advantages of MOOC

- MOOC creates the opportunity for **sharing ideas & knowledge**
- It improves cross cultural relationships
- MOOC enhances active learning
- MOOC encourages flipping the classroom
- Knowledge sharing in Discussion Forum
- No exam fever
- Peer evaluation provides the opportunity to learn via grading others.

# **Disadvantages of MOOC**

• MOOC style of education will gradually kill the care, empathy and respect involved between teacher and students in a physical classroom. It only increases the virtual social community.

# No Proper Evaluation Methods

• There is no opportunity for effective assessment methods like Q&A in classroom, surprise quizzes and presentations.

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## Conclusion

MOOCs integrate social networking, accessible online resources, and are facilitated by leading practitioners in the field of study. Most significantly, MOOCs build on the engagement of learners who self-organize their participation according to learning goals, prior knowledge, skills, and interests. There are many kinds of mind to which different learning styles correspond, and each might find some methods more useful than others.

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# ENHANCE OF MULTIMEDIA TEACHING IN ZOOLOGY

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#### Abstract

Multimedia in education is designed to enable the teaching and learning to acquire problem solving and decision making skills which can be developed through interactive multimedia. Multimedia includes computer and some electronic devices, which create memory, transmit and retrieve textural graphic, images, animation and auditory networks of information. Multimedia the most widely needed destination is a combination of many media with teaching and learning facilities. Mostly schools and colleges are using the multimedia application in teaching and learning of Zoology. Sound is perhaps the most sensuous element in the interactive multimedia it can provide the listening pleasure with lively in zoology teaching. Video in interactive multimedia combines that effectively visual and oral information. Multimedia ensures flexible learning and teaching in zoology, the pattern of multimedia interaction among teachers, learners and resources. The nature of multimedia provides immediate comprehensive feedback to science pupil, but particularly zoology students. It enhances effectively in zoology teaching and as well as it improves quality of education. It develops zoological activity as content mastery learning; it stimulates the student's curiosity and encourages zoology learning through various senses. Multimedia approach improves the quality in zoology teaching and learning. Thus, in this paper an attempt has been made to discuss the role of multimedia in teaching zoology.

#### Introduction

Multimedia teaching is designed to enable the learner to acquire problem solving and decision making skills which can be developed through multimedia. Multimedia includes a class of computer system which create store, transmit and retrieve textural graphic and auditory networks of information (Cazwski, 1992).Multimedia, the most widely needed destination is combination of many media with multimedia facilities. Many schools and colleges are using the the multimedia application in teaching and learning zoology. Sound is perhaps the most sensuous element in the multimedia it can provide the listening pleasure of zoology word. Video in multimedia combines visual and oral information. Multimedia teaching ensures flexible learning, the pattern of interaction among learners, teachers and resources. The nature of multimedia provides immediate comprehensive feedback to zoology students. It enhances zoology learning and as well as it improves quality of science education. It develops zoology learning through various senses. The multimedia approach improves the quality in zoology teaching.

It is a recognized fact that a large part of the human brain tends to be visual. The brain readily perceives still or moving images and many learners prefer processing and interpreting raw sound rather than cope with the verbal description of sound. Hence many learning tasks can therefore be more efficiently catered to by multimedia methods rather than the traditional verbal ones. If conventional verbal information presentation is replaced by multimedia which appeals to the learner's multiple modalities, increased learning will invariably result.

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The world of computers is getting easier to the world of human beings. As the hardware develops, computer displays become more realistic and cheaper. The computer with its virtually instantaneous response to the student input, its extensive capacity to store and manipulate information its unmatched ability to serve many individual students simultaneously is widely used in instruction. The computer has the ability to control and manage a wide verity of media and learning material – films, filmstrips, videos, slides, audiotapes and printed information.

The most striking in innovation in teaching of zoology is the application of multimedia in zoology class room. Multimedia based teaching improves student's achievement and retention in zoology. The multimedia interface with the student is possible through computer, laptop and other media. When students are learning through multimedia the acquired retention is better. 'Multimedia" is a buzzword today in the field of computer. Multimedia involves combining text, sounds, still pictures and video etc.

## **Multimedia Teaching**

Multimedia is considered as mutual action between the learner, the learning system, and the learning material. Numerous studies have found that interactivity has a strong positive effect on learning (Bosco, 1986, Fletcher, 1989, 1990, Stanfford, 1990). For example, Bosco (1986) reviewed 75 learning studies and found that learners learn faster, and have better attitudes toward learning when using multimedia. Multimedia has been called a "hybrid technology." It combines the storage and retrieval capabilities of computer database technology with advanced tools for viewing and manipulating these materials. Multimedia has a lot of different connotations, and definitions vary depending on the context. Multimedia is any package of materials that includes some combination of texts, graphics, still images, animation, video, and audio. These materials are packaged, integrated, and linked together in some way that offers users the ability to browse, navigate and analyze these materials through various searching and indexing features, as well as the capacity to annotate or personalize these materials. Multimedia is always "reader-centered". In multimedia, the reader controls the experience of reading the material by being able to select among multiple choices, choosing unique paths and sequences through the materials. One of the key features of multimedia is the ability to navigate through material in whatever ways are most meaningful for individual users.

## Enhance of Multimedia and Zoology Teaching

Zoology is a field of knowledge which has been changed and is changing. Zoology is an attempt to construct a testable mental model of some aspect of reality (Tweney, 1987). What distinguishes scientific thinking from other kinds of problem solving, inferential and deductive reasoning is testability. According to Tweney (1987) these mental models are constructed representations of the world; they can be verbal, mathematical, or visual in nature or some combination of the three models are based on existing schema structures in one's knowledge

base, which only changes due to the reciprocal processes of assimilation and accommodation. Informal reasoning processes such as analogy, metaphor and imagery, rather than formal processes of logical reasoning, are responsible for the ability to extend known information to new situations. Hence the multimedia based learning strategies should focus on informal reasoning rather than the formal processes.

In teaching of zoology, it has generally been found that more traditional methods of textbook and lecture instruction are not always the best way to teach (Dykstra, Boyle & Monarch, 1992). An instructional design based on interactive multimedia is valuable in science if the design promotes the construction or reconstruction of knowledge. Zoology instruction should strive to involve students as active participants in constructing their own theoretical frameworks.

Multimedia teaching encourage students to work in groups, express their knowledge in multiple ways, solve problems, revise their own work, and construct knowledge. The advantages of integrating multimedia in zoology classroom are many. Through the participation in multimedia activities, students can learn:

- To construct their knowledge based on experience
- The impact and importance of different media
- The significance of presentation and speaking skills

There are, however, some constraints to using in multimedia in zoology classroom, including:

- Technological resources, both hardware and software
- Technological skills, for both the students and teacher

• The multimedia has the capacity to deliver large amounts of materials in multiple forms, and to deliver them in an integrated environment that allows users to control the reading and viewing experience in science.

Multimedia teaching enhances in education the extraordinary storage and delivery capabilities of computerized material. This is especially important for schools, libraries, and learning institutions where books are difficult to obtain and update. Multimedia teaching is a powerful and efficient source for acquiring learning science resources. Enhance of Multimedia can also provide educational institutions access to other kinds of inaccessible materials, such as hard to find historical films, rare sound recordings of famous speeches, illustrations from difficult to obtain periodicals, and so on. Multimedia can put primary and secondary source of zoology materials at the fingertips of users in even the remotest locations from major research facilities.

Furthermore, multimedia teaching usually integrate some combination of orientation tools, such as timelines, graphs, glossaries, and other pedagogical guides. These kinds of tools further

point to the third major benefit of multimedia: the personalization or individualization of the learning experience in zoology class room.

## Conclusion

The long history of education has been dominated by both the spoken and written words. Generally, teaching in schools and other educational institutions is extremely verbal. Multimedia can be a powerful teaching tool in zoology because it engages multiple senses. Students using multimedia are reading, seeing, hearing, and actively manipulating materials. Multimedia teaching enables the user to manipulate these materials through a wide variety of powerful linking, sorting, searching and annotating activities. Each of these activities can be made to reinforce and inculcate various intellectual skills, in addition to satisfying certain cognitive needs for teaching zoology.

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# **CO-OPERATIVE LEARNING**

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#### Abstract

Ensuring effective learning among students is one of the major concerns among teachers. Co-operative learning is an active pedagogy that fosters higher academic achievement among students. Cooperative learning takes some time to get used to for both the teacher and students. The positive outcomes of it include academic gains, improved relations and increased personal and social development. Students who fully participate in group activities, exhibit collaborative behaviors, provide constructive feedback, and cooperate with their groups. Co-operative learning can increase attendance, completion of task on time, enjoyable learning, motivation etc. among students. The present paper takes up a bird's eye view on elements, advantages and disadvantages of co-operative learning.

Keywords: Learning, Co-operative Learning and Five Essential Elements

#### Introduction

Learning is the process of acquiring new or modifying existing knowledge, behaviors, skills, values, or preferences. Ensuring effective learning among students is one of the major concerns among teachers. Co-operative learning involves the process of small groups of students working together to maximize their own and each other's learning. Learning goals on the part of students may be structured to promote co-operative, competitive, or individualistic efforts. In every classroom, instructional activities are aimed at accomplishing goals and are conducted under a goal structure. A learning goal is a desired future state of demonstrating competence or mastery in the subject area being studied. The goal structure spells out the ways in which students can interact with each other and the teacher during the instructional session. In the ideal classroom, all students would learn how to work co-operatively with others, compete for fun and enjoyment, and work autonomously. The teacher decides which goal structure to implement within each lesson. The most important goal structure, and the one that can be used in the most of the time in learning situations, is co-operative learning

#### **Co-Operative Learning**

Co-operative learning is an educational approach which aims to organize activities of classroom into scholastic and social learning experiences. Further, it involves structuring positive interdependence among groups. Students must work in groups to complete tasks collectively toward academic goals. Unlike individual learning, which can be competitive in nature, students in co-operative learning can capitalize on one another's resources and skills. In addition, the role of the teacher changes to that of facilitator which involves facilitating students learning. In addition to learning from each other, students also learn how to work as part of a team and have others depend on them. Everyone succeeds when the group succeeds.

#### **Elements of Co-Operative Learning**

There are five essential elements in co-operative learning according to Brown, Ciuffetelli Parker (2009) and Siltala (2010).

#### **Positive Interdependence**

It involves full participation and efforts from students within their group. Every member has an assigned task/role/responsibility and should believe that they are responsible for their learning and that of their group.

#### **Face-to-face Promotive Interaction**

Group members promote success of each other. Students communicate to one another what they have or are learning and support one another with understanding and completion of assignments

## Individual and Group Accountability

Each student is accountable for their learning and work, therefore should avoid being idle.

#### Social Skills

Following social skills should be taught to groups for successful co-operative learning to occur. They include leadership, decision-making, building trust, development of friendship, communication, conflict-management skills etc.

## **Group Processing**

It should involve reflecting upon the actions of each individual member and making decision about how to proceed further

## Advantages

Following are a few advantages of co-operative learning in the classroom:

#### Learning becomes Fun

Co-operative learning ensures learning to be fun. This enables students to enjoy and more motivated.

#### **Interactive Learning**

Co-operative learning promotes interactive learning among students, which makes students to be engaged and active.

#### Thinking Skills are Honed

Co-operative learning provides for discussion and stimulates critical thinking among groups which makes students to learn effectively and increase reasoning abilities.

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#### **Shaping Future**

Co-operative learning motivates the students to work together, which is important for their futures.

## Individual Differences are considered

Co-operative learning can be applicable to all ability levels, ethnic groups among students.

## **Understanding Each Other**

Co-operative learning enables the students to understand each other well while working together.

## **Barriers are Broken**

Co-operative learning breaks ethnic and physically/mentally handicapped barriers and thus allows for positive interactions and friendships to occur among students.

## Limitations

## **Time Consuming**

It is a time consuming strategy both for preparation and implementation. Therefore, the teacher may not have enough time to complete his syllabus.

## Behavioural Problems may arise

Lack of proper instructions and guidance may lead to unsocial behaviours like all members talk at the same time, some members not participating, a member tries to dominate others and impose his views or even a member is ignored.

## Misuse

Sometimes, one student may chose not to work as hard as others, or simply allow others to do it for them.

## **Problem of Under Assessment**

A pupil who did his share of work honestly and would deserve a very good grade otherwise may be under graded for work not done by others in the group.

## **Bad Experience**

Bad experience working in a group may leave a bad impression about team work on pupils and this may affect negatively their working life later. They may not be likely to work well in teams.

## **Problem of Overuse**

Overusing co-operative learning may make pupils become dependent on each other and may impact negatively when they are required to work individually. Consensus becomes difficult particularly matters that involve emotions.

## Conclusion

Co-operative learning is an active pedagogy that fosters higher academic achievement among students. Cooperative learning takes some time to get used to for both the teacher and students. The positive outcomes of it include academic gains, improved relations and increased personal and social development. Students who fully participate in group activities, exhibit collaborative behaviors, provide constructive feedback, and cooperate with their groups. Co-operative learning can increase attendance, completion of task on time, enjoyable learning, motivation etc. among students.

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# INNOVATIVE AND BEST PRACTICES RELATED TO EDUCATION

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#### Abstract

The purpose of this study is to use the traditional methods of teaching as well as multimedia teaching and to suggest other useful teaching methods that can be attempted in imparting knowledge to the student. The use of innovative methods in educational institutions has the potential not only to improve education, but also to empower people, strengthen governance and galvanize the effort to achieve the human development goal for the country.

#### Introduction

Education is a light that shows the mankind the right direction to surge. The purpose of education is not just making a student literate but adds rationale thinking, knowledgeablity and self sufficiency.

Education is the most powerful weapon which you can use to change the world.

-Nelson Mandela

Teacher professional practices encompass both teaching practices in the classroom and broader professional practices that shape the school learning environment. Both types of practices have their roots in philosophies of education and in empirical research on educational effectiveness.

#### **Drawbacks of Using Traditional Methods**

Traditional teaching methods are described as being teacher-oriented, in a lecture style and are inflexible. Lessons are usually taught by the teacher introducing skills using a blackboard accompanied by a verbal explanation or lecture. Practical work for students is then assigned, followed by feedback from the teacher. The traditional methods are The Lecture method, The chalk and Talk method, Mind map etc.

- Lacks Student Focused Learning
- Lacks Emphasis on Critical Thinking
- Lacks Process Oriented Learning
- Lacks Emphasis on Larger Concepts or Structures
- Lacks Interactivity

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## Innovative Methods in Learning and Teaching

The biggest challenge any teacher faces is capturing the students' attention, and putting across ideas in such a way that it stays with them long after they have left the classroom. For this to happen, classroom experience should be redefined and innovative ideas that make teaching methods more effective should be implemented.

# **ICT in Education**

- Opens the door to lifelong learning
- Enables simulation, role-playing and decision making exercises
- Facilitates Virtual Communities and Communities of Practice
- Gives access to huge amount of information
- Trains skills in new literacies, that are of paramount importance in today's society

# **Types of Innovative Methods**

# **E-Learning**

E-learning is the use of technology to enable people to learn anytime and anywhere. E-learning can include training, the delivery of just-in-time information and guidance from experts. The advantages of E-learning are High teaching efficiency (organization, reusability of units) Availability of study material ("anywhere, anytime"), Individual approach to learners, Interactive teaching mode, multimedia features.

## Forums

An Internet forum is a discussion area on a website. Website members can post discussions read and respond to posts by other forum members. Establish a friendly, open environment. Encourages students to give constructive feedback and suggestions. They enable users of a website to interact with each other by exchanging tips and discussing topics related to a certain theme. Learning through online forums is an important learning strategy for students to improve their language skills. Benefits of online forums in language learning particularly in improving students' writing and communication skills.

## Chatrooms

Chat rooms are a great way to have a classroom discussions that enable and invite more students to participate than the traditional teacher-call-on-students model.

- Chat rooms provide a more democratic way for students reflect.
- Typing gives students a chance to formulate and rehearse their ideas in writing, instead of being put on the spot to answer verbally
- Classroom chat can reach the higher levels of Bloom's taxonomy because students have to generate their own questions and comment on others' contributions.

#### Projector

A projector or image projector is an optical device that projects an image (or moving images) onto a surface, commonly a projection screen. Most projectors create an image by shining a light through a small transparent lens, but some newer types of projectors can project the image directly, by using lasers.

- With the use of projectors in the classroom, students can take better notes with the ability to discern what information the teacher displays is most useful to them.
- Additionally, students can ask the teacher to repeat a slide if they missed information, or even ask that the teacher to email the presentation for further review.
- With the use of projectors, teachers can now use films, slides, and images to teach students about a variety of subjects.
- By using projectors, teachers can more easily prepare all notes prior to class for easy presentation.

## Tablet

A tablet is a wireless, portable personal computer with a touch screen interface. The tablet form factor is typically smaller than a notebook computer, but larger than a Smartphone.

- Tablet computers are interactive communication and book reading tools. Opening up quick and easy access to information and entertainment for all ages of users.
- They are "must have" technology for students. Textbooks can be read and stored for future use and used as a notebook adding the students own information.
- Tablets give students the web at their fingertips making it easy for students to research information for school projects, class work, homework etc.

## Interactive Whiteboard

An interactive whiteboard (IWB) is a large interactive display in the form factor of a whiteboard. It can either be a Standalone touch screen computer used independently to perform tasks and operations.

Classroom applications for using interactive whiteboards include:

- Multimedia lessons and presentations including audio and video
- Collaborative problem solving
- Showcasing student projects and presentations
- Virtual field trips
- Recorded lessons that can be used by substitute teachers
- Documentation of student achievement

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# Stimulating Classroom Environment

A classroom environment that is well-decorated, fun, and engaging. It will help stimulate a student's mind and will help think and learn better. Children, especially young ones cannot be expected to sit all day and learn. Such creative and stimulating environment will help them explore and will encourage them to learn about the subject.

# **Role-Play**

A role-playing game is a game in which the participants assume the roles of characters and collaboratively create stories. Participants determine the actions of their characters based on their characterisation, and the actions succeed or fail according to a formal system of rules and guidelines.

- Teaching through role play is a great way to make children step out of their comfort zone and develop their interpersonal skills.
- This method comes in handy, especially when you are teaching literature, history or current events.
- The role playing approach will help the student understand how the academic material will be relevant to his everyday task.

# **Educational Games and Simulations**

Educational games and simulations are experiential exercises that transport learners to another world. There they apply their knowledge, skills, and strategies in the execution of their assigned roles.

Academic games may fulfill any of four purposes: (a) to practice and/or refine alreadyacquired knowledge and skills, (b) to identify gaps or weaknesses in knowledge or skills, (c) to serve as a summation or review, and (d) to develop new relationships among concepts and principles.

Unlike games, simulations are evolving case studies of a particular social or physical reality. The goal, instead of winning, is to take a bona fide role, address the issues, threats, or problems arising in the simulation, and experience the effects of one's decisions.

# Conclusion

Any innovative teaching and learning method is not a quick fix or universal remedy. It cannot replace a traditional teaching methodology in education but rather supports it. One of the examples in using traditional teaching activities method is when the teacher cannot using modern teaching activities in the learning process when in the region that not support. Teacher can use both of traditional and modern teaching methods in the learning activities.

## **APPROACHES TO ENVIRONMENTAL EDUCATION**

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Environmental education refers to organized efforts to teach how natural environments function, and particularly, how human beings can manage behavior and ecosystems to live sustainably. The term often implies education within the school system, from primary to post-secondary. However, it sometimes includes all efforts to educate the public and other audiences, including print materials, websites, media campaigns, etc..

Environmental education is the teaching of individuals, and communities, in transitioning to a society that is knowledgeable of the environment and its associated problems, aware of the solutions to these problems, and motivated to solve them. The United Nations Educational, Scientific and Cultural Organisation (UNESCO) states that Environmental Education is vital in imparting an inherent respect for nature amongst society and in enhancing public environmental awareness. Environmental education encourages learning about environmental systems. In particular, it is concerned with encouraging more sustainable interactions between the human and natural world. Related fields include education for sustainable development and the more progressive field of eco-pedagogy.

#### What is Environmental Education?

Environmental education (EE) is the teaching of individuals, and communities, in transitioning to a society that is knowledgeable of the environment and its associated problems, aware of the solutions to these problems, and motivated to solve them.

#### Learning Outcomes of Environmental Education

Major learning outcomes of Environmental Education are:

- To improve awareness about environmental concerns.
- To develop understanding of ecological principles.
- To arouse concern for environmental problems.
- To stimulate commitment for environmental protection.
- To demand action to promote conservation of natural resources.

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#### Why Participatory and Innovative Approaches?

The methods and approaches selected by the teachers to the teaching learning of environmental dimension of any subject have to be necessarily active and participatory in nature. The techniques must ensure maximum involvement of the learners and provide enough opportu- nities for students to experience the environment, actual or simulated. Being true for any other subject, active and varied techniques are necessitated because studies on cognitive development reveal that student participation is a key to success in learning. The extent of active participation of the learner in the teaching-learning process is an excellent index of the quality of teaching.

- Through active participation. learning becomes internalised and becomes part of learner's cognitive structure. Learning becomes meaningful and permanent. Piaget's theory of cognitive development and Bruner's theory of concept formation support these beliefs.
- Though varied methods can be used to teach same concept. some concepts lend themselves better to certain methods than others.

## Some Participatory and Innovative Methods

- Field Visit: Visit to places of environmental concerns provides best opportunities to the learners as a means of observing and experiencing the real environment. It has enough scope for building environmental awareness, stimulating participation and developing investigative skills in learners. The technique can also be used successfully to focus on different components.
- Group Discussion: Group discussion is a frequently used strategy which can be tried to make the students express their opinions and ideas, on a particular theme or environmental issue. The teacher may help, guide, moderate and orient student thinking and facilitate the exchange of ideas.
- Situation Analysis: This is another effective technique which enables the students to identify significant variables such as values, opinions and objects, which are interacting to create a situation. It is a useful strategy to create awareness and develop understanding and is particularly effective in acquisition of skills in analysing, comparing, prioritising, predicting and evaluating.
- Role Playing: The technique provides contrived experiences to students which are simplified versions of real situations and are necessary when the reality is too obscured. The students are given specific roles to play, to dramatize a specific real life situation and it offers a good opportunity to them for personalising the actions in the given set up. The technique helps the learners to understand the given role in the social context and develop communication skills

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- Environmental Games: Most students like to play games. This tech- nique can be used effectively to arouse interest and developmental skills in students. Word puzzles. crosswords, quizes, Chinese cheq- uers and many other games related to concepts on environment can be created and used for improving awarness and developing understanding.
- Field Survey: Field survey is another effective technique to gather baseline information which can be utilised further for providing direction to desired actions, A check list, a questionnaire or direct interview are the tools which can be used to determine people's awareness, understanding or interest in environmental issues and problems. A small survey of the locality may be undertaken to study people's attitude towards population growth of the town or development projects being started in the surrounding area.
- Project Work: Individuals or small groups may undertake projects to either collect useful information or investigate surroundings for specific environmental problems. Some of the suggestive project works could be collection of data from resource books, investigating patterns of different agricultual practices in a rural community, preparation of a scrap book on birds. preparation of a model on water pollution. etc.
- Debates and Panel Discussions: Debates and panel discussions can serve to clarify matters of controversy and disputes. These can be effectively organised to help the students to express their opinion on environmental issues and concerns. Teachers or student representatives may act as judges for presenting their views on the subject.

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# IMPETUS OF RECIPROCAL TEACHING IN QUALITY EDUCATION

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#### Introduction

Today's teacher makes a much greater effort to assure that the subject-matter is appreciative to the capacity of his students. He has begun to realize that learning involves the total welfare of the child. Subject-matter and mastery of basic skills are important. A Teacher can adopt any of the methods available to him. Every method has got its own merits and demerits. None of the methods can be successful to the exclusion of others. The choice of the method, however, depends upon the teacher, pupils and the learning situations. The same method is not successful in the hands of different teachers, for different pupils and under different conditions. So, much depends upon the intelligence, and resourcefulness of the teacher. He can adopt that method which he thinks is best suited for a particular group of students under particular conditions.

## **Quality Education**

According to published ideas of George Lucas Educational Foundation, Quality Education includes the following aspects:

#### Students

- 1. Engage: Project-Based Learning
- 2. Connect: Integrated Studies
- 3. Share: Cooperative Learning
- 4. Expand: Comprehensive Assessment

#### Teachers

- 1. Coach: Intellectual and Emotional Guide
- 2. Learn: Teaching as Apprenticeship

## Schools

- 1. Adopt: Technology
- 2. Reorganize: Resources

#### Community

- 1. Involve: Parents
- 2. Include: Community Partners

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#### Approaches to Teaching

Approach is a matter of Principles. It is concerned with 'How to teach' and 'What to teach'. It is derived from a critical Study of the nature of language. It includes the psychological learning processes. To make learning meaningful, many techniques are being adopted in the teaching-learning process. Reciprocal Teaching is a method that plays a pivotal role in the learning process.

#### **Reciprocal Teaching**

Education is a process of development from infancy to maturity. In the educative process, two persons have involved the educator and the educand. But in the modern concept, this process is three dimensional the educator, the educand and the classroom environment. Students' reactions and perceptions of their school experience are significant. Different methods of teaching emphasise this role day by day. Reciprocal teaching is an interactive approach where equal importance is being given to the learner along with the teacher.

According to Palinscar (1986), Reciprocal Teaching is an instructional Teaching. It is an instructional activity that takes place in the form of a conversation between teachers and students about the text. It is structured by the use of four strategies: summarising, question generating, clarifying and predicting. The purpose of Reciprocal Teaching is to facilitate a group effort between teacher and students and among students.

#### Summarising

It enables the learners to identify the most relevant information in the text. The text is summarised in many ways. It can be summarised across sentences or paragraphs or whole passage. At the initial stage, students will be summarising sentences and paragraphs.

#### **Question Generating**

This step reinforces the first strategy, i.e. Summarizing and carries the learner one more step along in the comprehension activity. When the students raise questions, they ensure themselves that they can answer those questions. At first, the students generate simple questions because they have to find answers to their queries. Gradually, with the teacher's help, they can ask questions at different levels. This strategy will lead the students to infer new information from the text.

#### Clarifying

When we work with students, we have to consider the individual differences. Some students face comprehension difficulty. The teacher should announce that their doubts regarding the meaning of words, ideas in the paragraph or any concept is cleared. They are provided with chances to re-read or they can ask for the teacher's help.

## Predicting

Predicting is a strategy to make students think about the future event in the text. It is hypothesising. The students should have apt background knowledge regarding the topic. This strategy helps them link the new information in the text to the already learnt concepts. The students try to learn well the headings, phrases and important ideas that they previously known to predict the various events.

Reciprocal Teaching evolved as a comprehension-fostering strategy in regulating children's cognitive processing, especially those that impact and result in reading competence. Palinscar and Brown developed Reciprocal Teaching on a theoretical basis and formulated a theory of instruction that might improve task performance. From their analysis, they found that the following six functions are essential to expert reading comprehension.

- a) Understands that the goal in reading is to construct meaning.
- b) Activates relevant background knowledge to the learner.
- c) Allocates attention to pupil to concentrate on major content ideas.
- d) Evaluates the constructed meaning (gist) for internal consistency among students.
- e) Draws and tests inferences (it includes interpretations, predictions and conclusions).
- f) Monitors the five previous functions to see if comprehension is occurring.

Using the four strategies namely summarising, questioning, clarifying and predicting, they tapped all six functions needed for comprehensions.

In the process of teaching, the individual differences of every student are considered. Some students face comprehension difficulty. The teacher should announce that their doubts regarding the meaning of words, ideas in the paragraph or any concept is cleared. They are provided with chances to re-read or they can ask for the teacher's help.

## Benefits

Reciprocal Teaching is a good method to teach pupils how to identify significant ideas from reading while discussing vocabulary, developing ideas and questions, and summarising information. It is used widely in different contexts, especially with textbooks and non-fiction text.

#### Create and use the strategy

Break the classroom into mixed-ability small groups. Designate one student as the "teacher" within each group. This student will help keep their group on task and ensure they move through each of the four steps as they study material that has already been divided into smaller segments by you. Next, you will read the first segment to all the groups, modelling the following four steps of reciprocal teaching.

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## 1. Prediction

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- a. Ask students to predict what they think about the reading. Get them to think about what is going to happen by asking questions as a detective might do.
- 2. Question as you go
  - a. Remind students to generate questions as they listen and read. Remind them of the three levels:
    - i. Right-There Questions (answer in the text)
    - ii. Between-the-lines Questions (inference needed)
    - iii. Critical Thought Questions (require their opinion)
- 3. Clarify
  - a. As students listen and read, remind them to ask themselves what words and phrases are unclear to them. These clarifications may take the form of the following questions.
    - i. How do you pronounce that?
    - ii. What does the word mean?
    - iii. I think the author is saying...
    - iv. I'm guessing 'pie-in-the-sky' means...
- 4. Summarise
  - a. Students summarise verbally, within pairs, and then share with their assigned small group or record their summary and read it aloud to their group.
  - b. Each group could create a semantic map with points of significance shared by each group member.

Having modelled the previous steps, students should continue working in their respective groups by silently or orally studying the next sections of the text while carrying out the fourstep process.

## **Employing Reciprocal Teaching**

Marie Kelly, Dennis W. Moore and Bryan F. Tuck, University of Auckland, New Zealand, studied the possibility of employing reciprocal teaching techniques in regular elementary classrooms. They wanted to determine if classroom teachers could use reciprocal teaching without additional support or resources.

Reciprocal Teaching is employed in a Regular Class as Experiment. Students took turns acting as discussion leaders for different portions of the text. During the first sessions, the teachers continually modelled the target skills of questioning, summarising, clarifying and predicting, discussed their importance, encouraged students to participate, and praised their efforts. Students participated by answering questions while reading.

Teachers appreciated any student attempting to apply one of the four strategies. With practice, students became more accustomed at using the techniques and teacher's role is reduced and become more like coaches in providing corrective feedback and appreciation.

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Teachers emphasised the merits of the procedure, and students are explicitly encouraged to use these methods with all kinds of reading. Sessions are supervised to ensure that teachers followed reciprocal teaching procedures. Teachers' comments are evaluated to make sure that they reduced their leadership role during the second half of the lessons so that students could practice initiating the process independently. Each group session is followed by a quiz on a 250to-300-word passage. Comprehension is measured by ten questions which make both explicit and implicit information. While working with a group, teachers monitored the rest of the class as they worked at their desks.

Reading comprehension is tested on all students before and after the experiment. Also the effects of reciprocal teaching are measured one week after lessons are completed and again seven weeks later. Assessment checks are done on fiction material to determine whether students' newly acquired skills are employed with other kinds of material.

Both experimental groups improved their comprehension scores on daily quizzes. Kelly et al. conclude that these comprehension improvements are the result of the adoption of reciprocal teaching technique. Sustained maintenance of the gains proved the effectiveness of the procedure and is generalised to other kinds of reading material.

## Conclusion

Reciprocal teaching is a researched-based technique that utilises the comprehension strategies of predicting, clarifying, questioning, and summarising. It is a technique aimed at enhancing students' learning by empowering the meta-cognitive knowledge (self-questioning and monitoring of one's understanding). Teachers are given activities while implementing reciprocal teaching that requires very little prep time but is highly appealing to a range of learners. Reciprocal Teaching makes the teacher and the students realise their responsibilities, as well as, the importance of discussion and assessment.

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#### சிறப்புத்தேவை உடைய குழந்தைகளும் கல்வியும்

#### சௌ.ஜெயப்பிரியதர்ஷினி

மாணவ ஆசிரியர், அரவிந்தர் மீரா கல்வியில் கல்லூரி

#### த.முருகேஸ்வரி

மாணவ ஆசிரியர், அரவிந்தர் மீரா கல்வியில் கல்லூரி

கல்வி கற்கும் வாய்ப்பு எல்லாக் குழந்தைகளுக்கும் அளிக்கப்பட வேண்டும் என நமது அரசியல் சாசனம் 45-வது பிரிவு வலியுறுத்துகிறது. ஊனமுற்ற குழந்தைகளுக்கு அத்தகைய கல்வி வழங்க அரசு பெரிதும் முயற்சிகள் மேற்கொண்டு வருகின்றன. தமிழகத்தில் ஊனமுற்றோருக்கான 47 சிறப்புப்பள்ளிகள் இயங்கி வருகின்றன.

#### குறைபாடு உடைய குழந்தைகள்

குறைபாடுடைய குழந்தைகள் தற்போது மாற்றுத்திற்ன்கள் கொண்டோர் என்றழைக்கப்படுகின்றனர். இவர்களுள் பல வகையினர் உள்ளனர். உடற்குறைபாடு உடைய குழந்தைகளுள் பார்வையற்றோர், காதுகேளாதோர், ஊமையர் போன்ற புலனியக்கக் குறைபாடுடைய குழந்தைகளும், உடலியக்கக் குறைபாட்டினை (Defective Motoraility) பெற்றிருப்போரும், பேச்சுக் குறைபாடு (Defective Speech) உடையவர்களும் அடங்குவர்

ஆய்விற்கு பார்வைதிறன் குறைபாடு உள்ளவர்கள் காது கேளாதோர் ஆகியோரை மட்டும் எடுத்துக்கொள்ளப்பட்டுள்ளனர்.

#### சிறப்பு கல்வி என்பதன் விளக்கம்

சிறப்புக்கல்வி (ளுிநஉையட நுனரஉயவழைடு) என்பது கல்வித்திட்டத்தில் ஓர் அங்கமாகும். இது ஊனமுற்ற குழந்தைகளின் உள்ளுணர்வுகளை வெளிக் கொணரவும், அவர்களையும் சமுதாயத்தின் ஓர் அங்கமாக மாற்றிடவும் ஏற்றவாறு அமைக்கப்பட்டுள்ளது.

சிறப்பு கல்வியானது உடற்குறைபாடுடையவர்களுக்கும் (கண் பார்வைகுறைபாடு, காதுகேளாதோர், வாய் பேசாதோர்) மன வளர்ச்சி குன்றியவர்களுக்கும், கல்வியில் மிகவும் பின்தங்கியவர்களுக்கும் ஏற்ப வடிவமைக்கப்பட்டுள்ளது. குறைபாடுகளுக்குத் தகுந்தவாறு மாற்றியமைக்கப்பட்ட கற்பித்தல் சூழ்நிலை, கற்றல் சாதனங்கள், கற்பிக்கும் பொருட்கள் ஆகியவை சிறப்புக் கல்வியில் இடம் பெறுகின்றன.

#### சிறப்பு கல்வி முக்கியமும் தேவையும்

சிறப்புக்கல்வித்திட்டம் குறைபாடுடைய மாணவர்களு்ககாக தனியாக அமைக்கப்பட்டுள்ளது. எனினும் சாதாரண மாணவர்களைப் போலவே அதற்கு இணையாக அமைக்கப்பட்டுள்ளது. இதன் நோக்கமே, குறைபாடுடைய குழந்தைகளையும் சமுதாயத்தில் துடிப்புடன் பங்குபெறச் செய்வதுதான்.

இத்தகையவர்களுக்கு கல்வி புகட்டாமல் இருந்தால். இவர்கள் சமூகத்தைச் சார்ந்த பெரும் சுமையாக மாறிவிடுவர்.இவர்களைக் கல்வி மூலம் வளப்படுத்த வேண்டும். இத்தகையவர்களைக் கற்க வைத்து, பாதுகாப்பு உணர்வை அளித்திடுவதும்,சமுதாயத்தில் அங்கமாக அமைப்பதும் ஏற்றுக் கொள்ளச் செய்வதும், இவர்களுக்கு புலப் பயிற்சியளித்தும் உள்ளுணர்வுகளை வெளிக்கொணர்வதும். ஆற்றல்களை மேம்படுத்துவதும் அன்றாட வாழ்க்கைச் செயல்களில் பயிற்சியளிப்பதும் போன்றன சிறப்புக் கல்வியின் வேலைகள் ஆகும்.

#### Two Day National Conference on QUALITY EDUCATION FOR ALL - A SEARCH FOR IDENTITY

#### பார்வையற்றோருக்கான கல்வி

18ம் நூற்றாண்டில் தான் பார்வையற்றோர்கான கல்வி பற்றி முதன் முறையாகத் தனிக் கவனம் செலுத்தப்படத் தொடங்கியது. வாலண்டைன் ஹென்றி என்பவர் இத்துறையின் முதல் ஆசிரியர் என்று குறிப்பிடப்படுகிறார்.

பார்வைகுறைபாடு ஒவ்வொரு நாட்டிலுமே கல்வி கற்கும் வயதுக் குழந்தைகளின் எண்ணிக்கை 5% இருக்கக்கூடும் (Visually Handicapped) எனப்படுகிறது. இவர்களது கல்வித் தேவைகள் புறக்கணிக்கப்பட்டால் இவர்களது நல்வளர்ச்சியும் வாழ்வும் தடைப்படுவதோடு சமுதாயத்திற்குப் பாரமாகவும் இவர்கள் இருப்பர். பார்வையற்ற குழந்தைகள் இக்குறைபாட்டினைத் தவிர்த்து, பிற திறன்களிலும் ஆற்றல்களிலும் சாதாரணமாகவோ, மிகுதிறன் பெற்றோ இருத்தல் கூடும்.

#### பார்வையற்றோருக்கான சிக்கல்கள்

#### மாணவன்

- 1. தன் வேலைகளைச் செய்வதில் சிரமம் கொள்கிறான்.
- 2. அடுத்தவர்களை நம்பி வேலைகளை செய்ய வேண்டிய சூழ்நிலை ஏற்படுகிறது.
- 3. தன்னம்பிக்கையை இழக்கிறான்.
- 4. தாழ்வு மனப்பான்மை உருவாகிறது.

#### பெற்றோர்

- படிப்பறிவு இல்லாத பெற்றோர்களுக்குப் பார்வை குறைபாடு உள்ள குழந்தைகள் பற்றிய விழிப்புணர்வு இல்லை.
- குறைபாடு உள்ள குழந்தைகளுக்குத் தேவையான அளவு நேரங்களை ஒதுக்குவதில்லை.
- 3. கல்வி தொடர்பான ஆர்வமின்மை.

#### சமூகம்

ஒரு சில இடங்களில் பார்வை குறைபாடு உள்ளோரை ஒதுக்கி வைத்தல்.

 அனைவருடன் சேர்ந்து படிக்கும் போது, சில நேரங்களில் சில இடங்களில் கேளிக்கைக்கு ஆளவார். அதனால் தாழ்வு மனப்பான்மை சந்திக்கும் நிலை ஏற்படும்.

#### பார்வையற்றோருக்கான கல்வியின் நோக்கங்கள்

- சமூகப்பண்புகளையும் சமூகவியல்பினையும் வளர்த்தல், தாழ்வு உணர்ச்சியின்றி வளரப் பயிற்சியளித்தல்.
- தொழிற்கல்வி பொருளாதார காப்புணர்வு பெறவும் தமது கைகளை நம்பி வாழவும் பயிற்சி அளித்தல்.
- 3. தளரா நோக்குடைய வாழ்க்கைத் தத்துவமும் மனவெழச்சிச் சமநிலையும், நல்ல பொருத்தப்பாட்டினையும் பெற உதவுதல், தங்கள் குறைபாட்டினை உணர்ந்து, அது பற்றியே கவலை கொள்ளாமல் தம்நிலை பற்றி பயனுள்ள மனப்பான்மையும் சமுதாயம் பற்றிய நல்லமனபான்மையும் பெறுதல்.

#### காது கேளாதோருக்கான கல்வி முறை

பார்வையற்றோர் கல்வி மாதிரியே காது கேளாதோரது (னுநயக) கல்வியிலும் கவனம் செலுத்தப்படல் வேண்டும். முன்பு, பிறிவியலேயே காது கேளாத குழந்தைகள் பல்வேறு நுண்ணறிவில் பிற்பட்டோராகக் கருதப்பட்டு வந்தனர். இன்று, இவர்களைப் பற்றிய உண்மை நிலை உணரப்பட்டு, இவர்களது கல்வியிலும் கவனம் செலுத்தப்படுகிறது. இந்நிலைக்குப் பிறவிக் காரணிகளும், மரபுநிலை் 50% காரணங்கள், பிறநோய்கள் 50% காரணங்களாக இருக்கும். சிறு வயதிலேயே சோதனை வழியே (Audiometer) காது கேளாமையின் அளவினை அறியலாம்.

ஒலியினை டெசிபெல் (Decibel) என்னும் அலகு கொண்டு குறிப்பிடுவா. மனிதனது செவியினால் பிரித்துணரக் கூடிய மிகக் குறைந்த அளவு ஒலி ஒரு டெசிபல் எனப்படும். ஒரு குழந்தையின் செவியின் திறன் 50 டெசிபல் அல்லது அதற்கு மேல் குறைபாடுள்ளதாக இருப்பின் அதன் கல்விக்குத் தனிமுறைகள் கல்வியிலும் வாய்மொழிக் இத்தகையோரது கற்பித்தல் முக்கியமாகும். காது தேவை. கேளாத குழந்தைகளுக்குக் கற்பிக்க மிக்க பொறுமை தேவை. காலம் அதிகம் தேவைப்படும். ஒளித்தூண்டல், தொடுபுலன் தூண்டல் போன்றன பயன் படுத்தப்படும். முக்கியமாகப் பேச்சு கற்பிக்க மிக்க முயற்சி தேவை. குரல் நாண்களின் துடிப்பைத் தொட்டுணர்தல், ஒரு சொல்லை ஆசிரியர் உச்சரிக்கும்போது அவரது உதடுகளின் அமைப்பையும் அசைவையும் கவனித்தல் (Lip Reading). கண்ணாடியைப் பார்த்து உதடுகள், நாக்கு போன்றவற்றை ஒலிகளுக்கேற்ப அமைத்து இயக்குதல், விரல்களைப் பயன்படுத்தி கருத்தை வெளியிடும் குறியீட்டு மொழி போன்றன யாவும் கற்பிக்கப்படுகின்றன.

மத்திய அரசு வயது வந்த காது கேளாதோருக்கு ஹைதராபாத்தில் ஒரு பயிற்சி நிலையம் ஏற்படுத்தியுள்ளது. அகில இந்தியா காதுகேளாதோர் அமைப்பு நிழற்படப்பள்ளி ஒன்றை தொடங்க மத்திய அரசு மானியம் அளித்துள்ளது. சென்னை அடையாரிலுள்ள செயிண்ட் லூயிஸ் பள்ளி, காது கேளாத, வாய்பேச முடியாதவர்களுக்கு துவக்க கல்வி முதல் இளங்கலை பட்டப்படிப்பு வரை கல்வி அளிக்கிறது. இவர்களுக்கு உதவ அரசு ஒருங்கிணைந்த கல்வி போன்ற அமைப்புகளை உருவாக்கி அதன் மூலம் உதவி செய்கின்றது.

ஒரளவு காது கேளாத குழந்தைகளை இளம் வயதிலேயே மருத்துவ சோதனை வழியே கண்டுபிடித்து, அவரது நிலையைச் சீராக்க முயற்சி மேற்கொள்வதும், செவிக்கருவிகளைப் (ர்நயசபை யனைள) பய்னபடுத்துவதும், செவிக் கருவிகள் அணிவது பற்றிய விழிப்புணர்வு தோற்றுவிக்கப்பட வேண்டும்.

#### செவித்திறன் நரம்புகள் பாதிப்படைவதற்கான காரணங்கள்

1. வயது: 40 வயதுக்கு மேல் செவித்திறன் நரம்புகள் வலுவிழக்க தொடங்குகின்றன.

- அதிக இரைச்சல் உள்ள சூழல் (Loud Noise): தொடர்ந்து அதிக இரைச்சல் உள்ள சூழலில் இயங்க நேரிட்டால் செவித்திறன் பாதிப்படையும்.
- 3. மரபு ரீதியான கோளாறுகள் (Genetic abnormality)
- வைரஸ் தொற்று நோய்கள் (பொன்னுக்கு வீங்க), தட்டமை போன்ற வைரஸ் நோய்கள்)
- 5. முளையின் மேலுறை வீக்கம (Meningitis);
- 6. முளையில் தோன்றும் கட்டிகள் (Acoustic neuroma)
- 7. மூளைக் காயம் (Multiple Sclerosis)
- 8. கருநிலையில் காது சரியாக உருவாகாமை (Malformation of the ear)
- 9. பக்கவாதம் (cerebral stroke)

#### செவித்திறன் நரம்பில் ஏற்படும் பாதிப்பு பெரும்பாலும் நிரந்தரமானது ஆகும். செவிக்கருவிகளை பயன்படுத்தி கேட்கும் திறனை அதிகப்படுத்தலாம்

#### முடிவுரை

சிறப்புத் தேவையுடைய குழந்தைகளை அவர்களை அணுகுவது பற்றியும், கல்வியின் மூலம் அம்மாணவர்களை சமுதாயத்திற்கு ஏற்றவர்களாக மேம்படுத்துவது பற்றியும் இக்கட்டுரையில் எடுத்துரைக்கப்பட்டுள்ளது கண்டறிவது பற்றியும், அறிதிறன் அடிப்படையில்.

# PERSPECTIVES OF INFORMATION AND COMMUNICATION TECHNOLOGY IN MODERN EDUCATION

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#### Introduction

There is widespread belief that ICTs can and will empower teachers and learners, transforming teaching and learning processes from being highly teacher-dominated to studentcentered, and that this transformation will result in increased learning gains for students, creating and allowing for opportunities for learners to develop their creativity, problem-solving abilities, informational reasoning skills, communication skills, and other higher-order thinking skills. However, there are currently very limited, unequivocally compelling data to support this belief. It is generally believed that ICTs can empower teachers and learners, promote change and foster the development of '21st century skills, but data to support these beliefs are still limited. Information and Communications Technology (ICT) can impact student learning when teachers are digitally literate and understand how to integrate it into curriculum.

Schools use a diverse set of ICT tools to communicate, create, disseminate, store, and manage information. In some contexts, ICT has also become integral to the teaching-learning interaction, through such approaches as replacing chalkboards with interactive digital whiteboards, using students' own smart phones or other devices for learning during class time, and the "flipped classroom" model where students watch lectures at home on the computer and use classroom time for more interactive exercises.

When teachers are digitally literate and trained to use ICT, these approaches can lead to higher order thinking skills, provide creative and individualized options for students to express their understandings, and leave students better prepared to deal with ongoing technological change in society and the workplace. ICT issues planners must consider include: considering the total cost-benefit equation, supplying and maintaining the requisite infrastructure, and ensuring investments are matched with teacher support and other policies aimed at effective ICT use.

#### **Digital Culture and Digital Literacy**

Computer technologies and other aspects of digital culture have changed the ways people live, work, play, and learn, impacting the construction and distribution of knowledge and power around the world. Graduates who are less familiar with digital culture are increasingly at

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a disadvantage in the national and global economy. Digital literacy – the skills of searching for, discerning, and producing information, as well as the critical use of new media for full participation in society—has thus become an important consideration for curriculum frameworks.

In many countries, digital literacy is being built through the incorporation of information and communication technology (ICT) into schools. Some common educational applications of ICT include:

- *One laptop per child:* Less expensive laptops have been designed for use in school on a 1:1 basis with features like lower power consumption, a low cost operating system, and special re-programming and mesh network functions. Despite efforts to reduce costs, however, providing one laptop per child may be too costly for some developing countries.
- *Tablets:* Tablets are small personal computers with a touch screen, allowing input without a keyboard or mouse. Inexpensive learning software ("apps") can be downloaded onto tablets, making them a versatile tool for learning. The most effective apps develop higher order thinking skills and provide creative and individualized options for students to express their understandings.
- *Interactive White Boards or Smart Boards*: Interactive white boards allow projected computer images to be displayed, manipulated, dragged, clicked, or copied. Simultaneously, handwritten notes can be taken on the board and saved for later use. Interactive white boards are associated with whole-class instruction rather than student-centred activities. Student engagement is generally higher when ICT is available for student use throughout the classroom.
- *E-readers*: E-readers are electronic devices that can hold hundreds of books in digital form, and they are increasingly utilized in the delivery of reading material. Students both skilled readers and reluctant readers have had positive responses to the use of e-readers for independent reading. Features of e-readers that can contribute to positive use include their portability and long battery life, response to text, and the ability to define unknown words.
- *Flipped Classrooms:* The flipped classroom model, involving lecture and practice at home via computer-guided instruction and interactive learning activities in class, can allow for an expanded curriculum. There is little investigation on the student learning outcomes of flipped classrooms.<sup>(5)</sup> Student perceptions about flipped classrooms are mixed, but generally positive, as they prefer the cooperative learning activities in class over lecture.

## **ICT and Teacher Professional Development**

Teachers need specific professional development opportunities in order to increase their ability to use ICT for formative learning assessments, individualized instruction, accessing online resources, and for fostering student interaction and collaboration. Such training in ICT should positively impact teachers' general attitudes towards ICT in the classroom, but it should

also provide specific guidance on ICT teaching and learning within each discipline. Without this support, teachers tend to use ICT for skill-based applications, limiting student academic thinking. To support teachers as they change their teaching, it is also essential for education managers, supervisors, teacher educators, and decision makers to be trained in ICT use.

# **Ensuring Benefits of ICT Investment**

To ensure the investments made in ICT benefit students, additional conditions must be met. School policies need to provide schools with the minimum acceptable infrastructure for ICT, including stable and affordable internet connectivity and security measures such as filters and site blockers. Teacher policies need to target basic ICT literacy skills, ICT use in pedagogical settings, and discipline-specific uses. Successful implementation of ICT requires integration of ICT in the curriculum. Finally, digital content needs to be developed in local languages and reflect local culture. Ongoing technical, human, and organizational supports on all of these issues are needed to ensure access and effective use of ICT.

# Impact on Student Achievement

- **1.** The positive impact of ICT use in education has not been proven In general, and despite thousands of impact studies, the impact of ICT use on student achievement remains difficult to measure and open to much reasonable debate.
- **2. Positive impact more likely when linked to pedagogy** It is believed that specific uses of ICT can have positive effects on student achievement when ICTs are used appropriately to complement a teacher's existing pedagogical philosophies.
- 3. Computer Aided Instruction' has been seen to slightly improve student performance on multiple choice, standardized testing in some areas

Computer Aided (or Assisted) Instruction (CAI), which refers generally to student selfstudy or tutorials on PCs, has been shown to slightly improve student test scores on some reading and math skills, although whether such improvement correlates to real improvement in student learning is debatable.

# 4. Need for clear goals

ICTs are seen to be less effective (or ineffective) when the goals for their use are not clear. While such a statement would appear to be self-evident, the specific goals for ICT use in education are, in practice, are often only very broadly or rather loosely defined.

5. There is an important tension between traditional versus 'new' pedagogies and standardized testing

Traditional, transmission-type pedagogies are seen as more effective in preparation for standardized testing, which tends to measure the results of such teaching practices, than are more 'constructivist' pedagogical styles.

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# 6. Mismatch between methods used to measure effects and type of learning promoted

In many studies, there may be a mismatch between the methods used to measure effects and the nature of the learning promoted by the specific uses of ICT. For example, some studies have looked only for improvements in traditional teaching and learning processes and knowledge mastery instead of looking for new processes and knowledge related to the use of ICTs. It may be that more useful analysis of the impact of ICT can only emerge when the methods used to measure achievement and outcomes are more closely related to the learning activities and processes promoted by the use of ICTs.

## 7. ICTs are used differently in different school subjects

Uses of ICTs for simulations and modeling in science and math have been shown to be effective, as have word processing and communication software (e-mail) in the development of student language and communication skills.

## 8. Access outside of school affects impact

The relationships between in-class student computer use, out of class student computer use and student achievement are unclear. However, students in OECD countries reporting the greatest amount of computer use outside school are seen in some studies to have lower than average achievement (the presumption is that high computer use outside of school is disproportionately devoted to computer gaming).

# **9.** Users believe that ICTs make a positive difference In studies that rely largely on self-reporting, most user

In studies that rely largely on self-reporting, most users feel that using ICTs make them more effective learners.

## **Impact on Student Motivation**

## 1. ICTs motivate teachers and students

There appears to be a general consensus that both teachers and students feel ICT use greatly contributes to student motivation for learning.

2. Access outside of school affects user confidence (Not surprisingly) Students who use a computer at home also use them in school more frequently and with more confidence than pupils who have no home access.

## 3. Where to place computers has an impact

Placing computers in classrooms enables much greater use of ICTs for 'higher order' skills than placing computers in separate computer laboratories (indeed, fewer computers in classrooms may enable even more use than greater numbers of computers located in separate computer labs). Related to this is an increasing attention given to the use of laptops by both teachers and students (and in some places, 'computers-on-wheels'), as well as, to a much lesser extent, to the use of personal digital assistants and other mobile devices.

4. Models for successfully integrating ICT use in school and after school hours are still emerging

There are few successful models for the integration of student computer use at home or in other 'informal settings' outside of school facilities with use in school.

#### Two Day National Conference on QUALITY EDUCATION FOR ALL - A SEARCH FOR IDENTITY

## 5. The appropriate ages for introducing computers to students are hotly debated

On a general level, appropriate ages for student ICT use, in general, are unclear. However, it is clear that certain uses are more or less appropriate, given student ages and abilities. Emerging research cautions against widespread use at younger ages.

**6. ICTs can promote learner autonomy** Evidence exists that use of ICTs can increase learner autonomy for certain learners.

# 7. Gender affects impact Uses of ICTs in education in many cases to be affected by the gender of the learner.

8. The 'pilot effect' can be an important driver for positive impact Dedicated ICT-related interventions in education that introduce a new tool for teaching and learning may show improvements merely because the efforts surrounding such interventions lead teachers and students to do 'more' (potentially diverting energies and resources from other activities).

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# POLICY PERSPECTIVES ON QUALITY EDUCATION

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#### Introduction

Quality education concerns everyone in society, and it is essential that each of us play a role in contributing to such quality. Investing in quality education is a long-term return on investment for society at large, both in economic as well as social and cultural terms. Quality education Contributes to improving the quality of life of an individual and the development of society as a whole. For governments to fulfill their ultimate responsibility as duty-bearers in guaranteeing the right to quality education, the broad participation of and commitment by all actors concerned is crucial. The quality educational Providers, youth organizations take up their responsibility very seriously. Encouraging and promoting youth organizations through financial and technical support represents an investment in quality education for young people.

Quality education that young people receive will determine the quality of the human capital we want for our societies. Investing in our societies requires investing in quality education for all. The definition of quality education proposed here reflects a holistic approach to the topic which sees the process in its entirety and acknowledges the unique value and the complementarily between formal, non-formal education, and informal learning and of the different providers involved. It is built upon the understanding of education as a lifelong learning process where the learner plays a fundamental role. The specificities of how to have quality education in each education system are therefore not addressed here, nor does the paper propose any indicator to measure and evaluate the quality.

#### **Defining Quality Education**

The definition of quality education is intrinsically linked to the understanding of the purpose of education in a given society and given the existing individual and collective development needs and aspirations. Likewise, it is connected to the identified needs of the learner, to the equal vocalization of different educational paths within each system, as well as to the educational provider's vision and mission. It is to each community to identify what makes their education of quality through a mutual consent process among all actors involved, from government authorities and policy-makers to educational institutions, communities and the learner. This process requires that all stakeholders enter into dialogue to agree on the aims and objectives, and on the framework that will guide any analysis and improvement of the quality of

education. A dialogue between the different stakeholders is therefore essential in any process of development and monitoring of policies as well as in the delivery and evaluation of quality education.

## **Policy Framework for Education Development**

- 1986 National Policy on Education 1986 (NPE 1986) adopted.
- 1987 Several large centrally-assisted schemes/ programmes such as 'Operation Blackboard'
- 1988 National literacy Mission (NLM)
- 1992 National Policy on Education 1986 revised.
- 1994 District Primary Education Programme (DPEP) launched to universalize primary Education in selected districts.
- 1995 Centrally-assisted National Programme of Nutritional Support to Primary Education, Popularly known as the Mid-Day Meal Scheme (MDMS)
- 1999 A separate Department of School Education and Literacy created within the Ministry of Human Resource Development, Government of India.

2001 (i) Sarva Shiksha Abhiyan, the flagship programme for universalization of elementary education, launched;

(ii)Adoption of the National Policy on Empowerment of Women. The policy supported the provision of childcare facilities, including crèches at work places of women.

2002 (i) The Constitution (Eighty-sixth Amendment) Act,2002 inserted Article 21-A in the Constitution of India to provide free and compulsory education for all children in the age group of six to fourteen years as a Fundamental Right;

(ii) Commitment to the provision of early childhood care and education to children below the age of six years reiterated.

(iii) The Tenth Five-Year Plan (2002-2007) launched.

2003 (i) National Youth Policy, 2003 formulated.

2004 (i) Education Cass introduced for raising additional financial resources needed to fulfill Government's commitment to universalize elementary education;

(ii) EDUSAT, a satellite exclusively dedicated to education launched to harness modern technology for delivery of education of good quality to all, including hard-to-reach groups.

2005 National Curriculum Framework (NCF-2005) for school education formulated.

2007 Eleventh Five-Year Plan (2007-2012) launched;

2009(i) The Right of Children to Free and Compulsory Education Act, 2009 enacted. The Act makes it incumbent on Governments to provide for free and compulsory education to all children of the age of six to fourteen years. Section 11 of the Act also states, "with a view to prepare children above the age of three years for elementary education and to provide early childhood care and education for all children until they complete the age of six years, the

appropriate Government may make necessary arrangement for providing free pre-school education for such children";

(ii) The National Literacy Mission (NLM) recast with focus on female Literacy and the "Sakshar Bharat" (Literate India) programme launched as the national adult education programme on 8 September 2009;

(iii) The revised National Curriculum Frame work for teacher Education formulated;

(iv) The Rashtriya Madhyamik Shiksha Abhiyan (RMSA) launched in March 2009, with the vision of making secondary education of good quality available, accessible and affordable to all young persons in the age group 15-16 years;

(v) Revised Centrally-sponsored Scheme of Inclusive Education for the Disabled at Secondary Stage approved;

(vi) The Centrally-Sponsored Scheme "Construction & Running of Girls 'Hostel for Students of Secondary and Higher Secondary Schools approved.

2010 (i) The Right of Children to Free and Compulsory Education (RTE) Act 2009 came into force from April 2010;

(ii) All States/UTs notified State RTE Rules. Central RTE Rules apply to Union Territories without legislation;

(iii) The Sarva Shiksha Abhiyan(SSA) Framework aligned to RTE Act;

(iv) Revised Centrally-Sponsored Scheme of ICT@ Schools approved.

2012 The Twelfth Five-Year Plan (2007-2012) launched;

2013 (i) National Early Childhood Care and Education (ECCE) Policy adopted;

(ii) The Integrated Child Development Services, the flagship programme of Government of India for ECCE restructured and strengthened.

2014 National Youth Policy, 2014 adopted.

## National Policy on Early Childhood Care and Education (2013):

A National Policy on Early Childhood Care and Education in September 2013. The Policy envisages promotion of inclusive, equitable and contextualized opportunities for promoting optimal development and active learning capacity of all children below six years of age. The policy lays down the way forward for a comprehensive approach towards ensuring a sound foundation for survival, growth and development with focus on care and early learning for every child. The goals of the policy include: Universal access with equity and inclusion, Quality in ECCE, and Strengthening capacity, monitoring and supervision, advocacy, research and review.

## **National Youth Policy**

The National Youth Policy, 2003 reiterated the country's commitment to the composite and all-round development of the youth and adolescents of India. The objectives of the National

Youth Policy 2003 included providing the proper education and training opportunities and facilitating access to information in respect of employment opportunities and to other services, including entrepreneurial guidance and financial credit. The National Youth Policy, 2014 policy seeks to empower of the country to achieve their full potential.

## Conclusion

The quality of education is without a doubt one of the interest for society, because of its impact on all dimensions of the life of a person and in turn, in the community as a whole. It concerns everyone in society and, it is essential that each of us play a role in contributing to such quality. The quality of the education our young people receive will determine the quality of the human capital, we want for our societies. Investing in our societies requires investing in quality education for all. Policy and decision-makers at local, national, and global levels to assume their responsibility to bring about sustainable reforms towards quality education, Youth organizations, education and training institutions, and other non-formal education civil society organizations, student unions, faith-based communities, social partners and companies, peers and parents ; and academia, to become aware and take responsibility for their role as educational providers. Learners to take an active role in their own learning, becoming an agent of change within the educational process.

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# **CRITERIA FOR QUALITY EDUCATION**

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Quality education is not an easy concept to qualify. At a time when we are discussing a quality education for all our learners it is important to take time to understand this concept. According to the Education For All: Global Monitoring Report 2005 - The Quality Imperative (EFA: GMR), two principles characterise most attempts to define quality in education: the first identifies learners' cognitive development as the major explicit objective of all education systems. The second emphasises education's role in promoting values and attitudes of responsible citizenship and in nurturing creative and emotional development."

The GMR emphasises six policy issues which directly impact on teaching and learning:

- Relevant aims. Policy dialogue must arrive at a relevant balanced set of aims describing what learners should learn and why; the development of cognitive, creative and social skills and values; respect for human rights, the environment, peace and tolerance and cultural diversity. These put citizenship, democracy and human rights at the fore.
- 2. Subject balance how subjects are defined, how many are taught and the time allocated to each.
- 3. Good use of time. Positive correlations are noted between instruction time and student achievement at both primary and secondary levels. Between 850 and 1,000 effective hours (not necessarily official hours) of schooling per year is broadly agreed as a benchmark.1
- 4. Pedagogic approaches for better learning. Child-centred active pedagogy, cooperative learning and the development of critical thinking and problem-solving skills need to be present.
- 5. Language policy. Language of instruction is a policy choice affecting curriculum, content and pedagogy. A balance needs to be struck between enabling people to use local languages in learning and ensuring that they have access to global languages.
- 6. Learning from assessment. Regular, reliable, timely assessment is a key to improving learning achievement. The goals are to give learners feedback and improve learning and teaching practices. Formative assessment is needed as a complement to formal examinations.

Quality learning is not only essential for meeting people's basic needs, but is also fundamental in fostering the conditions for global peace and sustainable development. All young people need to learn in active, collaborative and self-directed ways in order to flourish and contribute to their communities. Along with the basics, they need to acquire attitudes, values and skills as well as information. Their teachers, peers, communities, curriculum and learning resources must help prepare them to recognize and respect human rights globally and to value global well-being, as well as equip them with the relevant skills and competencies for 21st century employment opportunities.

To achieve this, it is not enough to measure what learners learn: it is essential to target the classroom experiences that fundamentally shape student learning, and emphasize the range of skills required for lifelong well-being and societal cohesion.

Education is the backbone of our nation. It is an instrument to national human resource development. Listed among the fastest growing economies in the world, India stands way behind in the line, when it comes to education. Low quality education is crippling India's growth to cope with the demands of the 21st century economy.

Education is the process in which knowledge, skills and set of values are passed or imparted from a person to another. In the formal setting wherein learning is done in schools, the success of educators in imparting knowledge and skills depends on the quality of education they are providing to their students.

A **quality circle** or **quality control circle** is a group of workers who do the same or similar work, who meet regularly to identify, analyze and solve work-related problems. Normally small in size, the group is usually led by a supervisor or manager and presents its solutions to management; where possible, workers implement the solutions themselves in order to improve the performance of the organization and motivate employees. Quality circles were at their most popular during the 1980s, but continue to exist in the form of Kaizen groups and similar worker participation schemes.

Typical topics for the attention of quality circles are improving occupational safety and health, improving product design, and improvement in the workplace and manufacturing processes. The term *quality circles* was most accessibly defined by Professor Kaoru Ishikawa in his 1988 handbook, "What is Total Quality Control? The Japanese Way" and circulated throughout Japanese industry by the Japanese Union of Scientists and Engineers in 1960. The first company in Japan to introduce Quality Circles was the Nippon Wireless and Telegraph Company in 1962. By the end of that year there were 36 companies registered by 1978 the movement had grown to an estimated 1 million Circles involving some 10 million Japanese workers.

## Why Quality Education is Important?

- Have a higher knowledge
- Helps you to success in the future
- Economic growth of the nation

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- An economically self-sufficient society is the stepping stone to combined productivity that leads to a economic growth of the nation on a whole.
- Keeping up with evolutions
- All in one way or the other made to simplify your life

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# ATTITUDE OF STUDENT TEACHERS TOWARDS WESTERN CULTURE IN SIVAGANGAI DISTRICT

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#### Abstract

The purpose of this study is to find out the attitude of students teacher towards western culture and for which, the survey method is used as a method of study. The 200 student teachers from various Education colleges in Sivagangai Dist were considered as a sample of the study and they were administered the tool that correlate their attitude towards western culture. The present study shows that a clear majority of students like some aspect of the Western culture. The study concludes that these student teachers are predisposed to interact favourably with the Western culture. **Keywords:** Attitude, Western culture, student teachers.

#### Introduction

During recent years, higher employment opportunities have increased for student teachers. As part of their further education and employment opportunities from other countries they have to study the English language, and develop proficiency in it for many fields of study, as well as using materials often based on Western contexts. Students' perceptions of the West are pertinent to learning and teaching in the Gulf because these perceptions can have an effect, either positive or negative, on an individual's desire to learn and use English and his/her response to Western-oriented material. Presumably, students who hold a favourable disposition toward the West are better placed to learn in such a context; conversely, those who resent the West may feel a disinclination to study the language and with such materials. With respect to resentment toward the Western culture. An exploration into the attitudes toward Western culture was conducted with student teachers in Sivagangai district the aim of the study was to investigators whether or not student teachers were positively predisposed to Western culture, and how this might influence their learning.

#### Statement of the Problem

The investigator has selected the present study with the aim of knowing the attitude of B.Ed trainees towards Western culture Therefore it has been entitled as "Attitude of B.Ed Trainees towards western culture".

## Objectives

- To find out the level of attitude of B.Ed trainees towards western culture.
- To find out the percentage of B.Ed trainees lying in the three levels of attitude towards western culture.
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- To find out the significant difference in attitude of B.Ed trainees towards western culture in terms of the following attributive variables:
- a) Gender
- b) Medium of instruction
- c) Locality.

# Hypothesis

- The level of attitude towards western culture among B.Ed trainees is not high.
- There is no differences in the percentage of B.Ed trainees found in the three levels of attitude towards western culture.
- There is no significant difference in attitude towards western culture among B.Ed trainees in terms of the following attributive variables:
- a) Gender
- b) Medium of instruction
- c) Locality.

## Sample

The researchers adopted survey method and the size of the sample is 200 B.Ed trainees from different B.Ed Colleges in Sivagangai district with the representation given to the variables namely gender, medium of instruction, Locality, Parents Education. **Simple random sampling technique** is used for sample selection.

# Tool used

Attitude scale towards western culture was constructed by the investigators and was used in this study. The tool consists of 20 statements in the form of two point training scale and comprising of 17 positive items and 3 negative items. In scoring procedure, each positive item has 1 mark as high score and 0 mark as low score. Thus the maximum score in the test would be 20.

## **Statistical Techniques:**

The collected data was analysed statistically by using the percentage analysis, arithmetic mean, standard deviation and the t-test.

The collected data was analysed statistically by using the percentage analysis, arithmetic mean, standard deviation and the t-test.

The level of attitude toward the western culture anong D.E.d trainces			
Sample	Number	Theoretical Mean	Obtained mean
B.Ed trainees	200	60	7

#### The level of attitude toward the western culture among B.Ed trainees

## Two Day National Conference on QUALITY EDUCATION FOR ALL - A SEARCH FOR IDENTITY

From table no.1, it is inferred that the obtained mean value 45 is higher than that of the theoretical mean value 40, which is the frame of reference. Hence the framed null hypothesis "The level of attitude towards western culture among B.Ed trainees is not high" is rejected.

#### Percentage of B.Ed trainees in three level of western culture

Attitude of students teachers towards western culture	Frequency	Percentage
High level	32	16%
Moderate level	110	55%
Low level	58	29%

From table No.2, it is inferred that 16% of B.Ed trainees possess high level of attitude towards western culture, 55 % of B.Ed trainees posses moderate level of attitude towards western culture, and 29% of B.Ed trainees posses low level of attitude towards western culture. This shows that there is difference in the percentage of B.Ed trainees found in the three levels of attitude towards western culture. Hence the framed null hypothesis "There is no difference in the percentage of B.Ed trainees found in the three levels of attitude towards western culture" is rejected.

			0		
Background variable		Ν	Mean	SD	Remarks at 5% level
Gender	Male	80	163.44	28.11	NC
	Female	120	166.12	29.98	115
Locality	Rural	126	48.64	10.662	C
	Urban	74	89.94	35.75	5
Medium of	Tamil	125	16.46	2.150	NC
instruction	English	75	17.26	2.578	

Difference in the western culture among the variables

From table no.3, it is inferred that the obtained 't' values of gender, and medium of instruction are smaller than that of the table value 1.96 at 0.05 level of significance. This shows that there is no difference in attitude on western culture among B.Ed trainees in terms of attributive variables. Hence the framed hypothesis "There is no significant difference in attitude towards western culture among B.Ed trainees in terms of gender and medium of instruction" is accepted.

## Suggestions

- Institution should arrange seminars and workshop on western culture for their teaching staff.
- Educational institution should develop the infrastructure with modern educational technology

## Conclusion

The present study shows that the awareness of student teachers towards western culture is mostly different in any aspects. The awareness of western culture is very use full to the B.Ed trainees.

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## MULTICULTURAL ISSUES RELATED TO EDUCATION

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#### Introduction

There is a significant relationship between culture and education since the culture of teachers and students affect education progression in the classroom. Thus, culture embraces everything that makes one group or community within a society distinguishing from another: language, values, literature, worldview, food, religion, clothing, holidays, beliefs, and behavior that construct a specific group's lifestyle. Multicultural education comprises practices and theories that maintain equitable opportunities and academic achievement for all students.

Culture, schooling, and education are in egalitarian multiculturalism ways of teaching, learning and education programs. For example, the population of India is composed of people of many cultural backgrounds with a diversity of traditions, values, and beliefs. Thus, there is the relationship between multiculturalism and education processes through teaching and learning methods and approaches. This paper will focus to explore some issues in the multicultural classroom that teachers and student may face such as low academic achievement, adjustment to a new cultural environment, and trust problems with self as well as the new culture.

#### **Current Issues in the Multicultural Classroom**



#### **Multicultural Education**

Multicultural education means to the learning of suitable knowledge, attitudes and skills associated to the respect and positive reception of different cultures and other variations which

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include race, ethnicity, religion etc. Gollnick and Chinn (1990) recommend five goals for multicultural education. These goals also emphasize issues beyond the boundaries of ethnic or racial issues. They include:

- The endorsement of strength and value of cultural diversity,
- An importance on human rights and respect for those who are different from oneself,
- The acceptance of unconventional life choices for people,
- The promotion of social justice and equality for all people, and
- An emphasis on equal distribution of power and income among groups

## Early Childhood

Brain research has revealed that the "prime time" for emotional and social development in children is birth to 12 years of age. Differing features of emotional and social development, which incorporate higher capacities, such as awareness of others empathy and trust, are vital at different times. Emotional intelligence is critical to life triumph. The part of the brain that controls emotion, the amygdale, is shaped early on by experience and forms the brain's emotional wiring. Early nurturing is essential to learning empathy, happiness, hopefulness and resiliency. Social development, which entails both self-awareness and a child's ability to work together with others, also occurs in stages.

## **Issues and Challenges**

Ultimate aim of this paper is to focus the issues and challenges that will be linked to the implementing multicultural education in early childhood education settings. These provisions include the following:

- Access to and enrollment in early childhood education
- Curriculum orientation pedagogy and resources
- Language development
- Early childhood education staff recruitment and professional development.

## Access to and Enrollment in Early Childhood Education

It seems only logical that the first requirement for multicultural education is the provision for equal access to early childhood services. All children irrespective of ethnicity, class, gender, ability, religion etc should be permissible to the facility of their choice. The desirable output is that services will reproduce the cultural make-up of the country. Communication about this policy necessitates to be undertaken with prospective families so that those who have protestations to their children being educated alongside others who are "different" can exercise their choice of not enrolling their children. Not with standing such a policy, the reality might be that the ability of different cultural groups within society to access children's services is not equal. Therefore it is essential that:

- Services be aware of that every child, family and staff member has a right to access early childhood services which hold up their cultural identity and their community.
- Services are to be designed, executed and estimated through ongoing discussion with service users and the wider community to reflect the assortment of that community.
- Within each service, information is provided in a variety of ways, for example oral, visual and written.
- Information about the service for families is reachable. This is facilitated by multilingual translations and/or interpreter services relevant to the family.

## **Curriculum Orientation - Pedagogy and Resources**

The curriculum is the means by which learning outcomes will be achieved. So too it is hoped the goals and objectives of multicultural education. Multicultural education is not to be taught as a "stand-alone" subject. Rather it is to be infused throughout the curriculum. Banks (1994) has divided multicultural curriculum reform into four approaches. These include:

- 1) The involvements approach,
- 2) The preservative approach,
- 3) The social action approach,
- 4) The renovation approach.

## Language Development

Generally, the educational systems in most countries make use of the national language (usually the majority language) as the medium of instruction. However multiculturalism and the identification of the pivotal role of language in learning formulates it obligatory for adversity of language, literacy's and communication styles to be recognized, valued and used within all early childhood services. The provision for children to learn the majority language whilst maintaining their first language should be supported and encouraged. This of course is to propose bilingualism or at least support for the home language as a policy even at the early childhood education level. Research has shown that there can only be advantages to the child besides protecting and respecting the home language. For example, since the 1960s, research has shown that multiple language skills do not confuse the mind. Instead, Hakuta(1986) reported that such skills when well developed seem to provide cognitive advantages, although such effects are complex and difficult to measure.

# Implications

These implications and problems need to be addressed and made visible to those involved in the business of providing early childhood education while being dedicated to multiculturalism. Only when these substances are determined, can multicultural education then have a fighting chance of successfully being implemented.

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- Understanding and appreciating interdependence of humanity, cultures, and the natural environment.
- Practicing mutual respect for qualities and experiences that are different from our own.
- Understanding that diversity includes not only ways of being but also ways of knowing;
- Recognizing that personal, cultural and institutionalized discrimination creates and sustains privileges for some while creating and sustaining disadvantages for others;
- Building alliances across differences so that we can work together to eradicate all forms of discrimination.

## Conclusion

In conclusion, teachers who learn more about their students' backgrounds, cultures, and experiences will feel more competent and proficient in their work as teachers. Teachers should work constantly to progress the lives of their students. Also, teachers can diminish issues in the multicultural classroom through improving their teaching approaches and learning. Flexibility is more imperative than knowledge in dealing with multicultural issues. Therefore, teachers should investigate the issues in the multicultural classroom as they arise and deal with these problems. Also, teachers should try to find, create, or design manners to raise and improve the academic achievement of students, and to build an effective or strong relationship with students.

Finally, for multiculturalism to succeed in the early childhood classroom the onus seems to fall largely on the shoulders of the teacher/caregiver who are the individuals that the children look up to as role models as well as for guidance and affirmation. Hence it is expecting a lot of the teacher if it means a change in paradigm, or even deep-seated beliefs and values to accommodate one of respect for diversity. But then anything less will mean short-changing an authentic and genuine regard for multiculturalism.

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# SOLO TAXONOMY LEADS TO HIGHER ORDER THINKING

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#### Abstract

Solo Taxonomy has become increasingly popular in using assessment tool for teaching learning process to increase higher order thinking skills. It is the best cognitive tool for both teachers and students themselves to assess the cognitive level at which the students are working and identifies higher order thinking skills with the students' activities. Now-a-days any person needs to have higher order thinking for challenging competitive this world. National educational goals frequently call for an emphasis on generic cognitive skills, which are usually described in terms of critical, creative or reflective thinking, analyses and knowledge creation. They have become known as higher order thinking skills. Solo Taxonomy is much easier to use than blooms' taxonomy. It is the need of hour to use the Solo Taxonomy in teaching learning process.

#### Introduction

Thinking is the essential activity that differentiates man from the rest of the animal kingdom. The thought, thought process and the way of thinking of every individual are different. Technological, Social and Economic change is encouraging increasing emphasis on the development of higher order thinking skills throughout the world and they are being incorporated into national curriculum goals in many countries. "SOLO Taxonomy provides a simple and robust way of describing how learning outcomes grow in complexity from surface to deep understanding" Biggs & Collis. Despite of digital technologies is being promoted by many educators and authorities in this state and elsewhere as an approach that will enable students to develop the skills. SOLO taxonomy is an increasingly popular tool for identifying higher order thinking skills. This taxonomy depicts the complexity of student responses to question or tasks, and also can be applied to the questions or tasks themselves. SOLO levels distinguish between surface and deep thinking and one intention of using this approach is to enable teachers to guide students towards increasing their depth of thinking.

#### Higher Order Thinking Skills in the Curriculum

National educational goals frequently call for an emphasis on generic cognitive skills, which are usually described in terms of critical, creative or reflective thinking, analysis and knowledge creation. They have become known as higher order thinking skills. Alexandar and colleagues (2011) have looked at the intellectual activity involved in higher order thinking and propose the definition: HOT is the mental engagement with ideas, objects and situations in an analogical ,elaborative, inductive, deductive, and otherwise transformational manner that is indicative of

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an orientation toward knowing as a complex, effortful, generative, evidence-seeking, and reflective enterprise. Although this definition is general, the authors recognize that the distinctive qualities of higher order thinking depend on the nature of the domain and task.

#### SOLO Taxonomy

SOLO (Structure of Observed Learning Outcomes) provides a structured framework for students to use to progress their thinking and learning. It encourages students to think about where they are currently with their learning and what they need to do in order to progress.

Prestructural I am not sure about	This is the first stage – where students don't really have any knowledge or understanding of the topic being studied. A student who is pre-structural will usually respond with ' <i>I don't understand</i> '
Unistructural I have <u>one relevant idea</u> about	Moving on from pre-structural, students who are unistructural have a limited knowledge of the topic – they may just know one isolated fact about the topic. So, a typical response might be: <i>'I have some understanding of this topic'</i>
Multistructural I have <u>several ideas</u> about	Progressing from unistructural to multistructural simply means that the student knows a few facts about this topic – but is unable to link them together. So a typical response might be 'I know a few things about this topic' or 'I have gathered some information about this topic'.
Relational I have several ideas about I can link them to the big picture	<ul> <li>With relational, we are starting to move towards higher level thinking - students are able to link together and explain several ideas around a related topic.</li> <li>So a typical student 'relational response might be:</li> <li>'I can see the connections between the information I have gathered'.</li> </ul>

There are five main stages



The final and most complex level is extended abstract. With this, not only are students able to link lots of related ideas together, but they can also link these to other bigger ideas and concepts. So a student response at this level might sound like:

'By reflecting and evaluating on my learning, I am able to look at the bigger picture and link lots of different ideas together'.

## An Example....

In science, students might be asked the question 'What do you understand by the term respiration'. Students may then respond in the following ways:

- **Prestructural** "Err.....What?"
- Unistructural "It releases energy"
- **Multistructural** "It's a chemical reaction that releases energy, uses oxygen and glucose and release carbon dioxide."
- **Relational** "It's a reaction that takes place in all body cells. Products of digestion, such as glucose, are transported to cells by the blood and reacted with oxygen to produce carbon dioxide which is breathed out. Energy is released."
- **Extended abstract** It's reaction that takes place in all body cells. Products of digestion, such as glucose, are transported to cells by the blood and reacted with oxygen to produce carbon dioxide-which is breathed out via the lungs(using gas exchange and ventilation). As energy is released, respiration is an example of an exothermic reaction. The energy that is released can then be used by the body for growth of new cells, repair of tissues and keeping warm.

## An example ..... Matrices and Determinants

In Matrices and Determinants, students may respond the following way

- Pre Structural I don't understand or I don't know
- Unstructured A matrices and determinant have rows and columns
- Multi structural I have several ideas about the topic
- A matrix have H rows and H columns'
- I write HXH matrix
- Determinant also have H rows and H columns
- Relational I can link my ideas together to see the big picture
  - A matrix cannot be reduced to a number
  - It is a structure alone and is not having any value

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- But a determinant can be reduced to a number on interchanging the rows and columns a different matrix is formed
- Extended Abstract: I can look at these ideas in a new and different way
  - In matrix
  - great utility is many branches
  - algebraic
  - differential equations
  - Mechanics theory of electrical circuits/nuclear physics and astronomy

## Conclusion

More than 75 percent of the students' annual exam questions are based on lower order thinking skills only. Schools are setback to provide the efficient student for challenging competitive world. Solo taxonomy supports and leads students to reflect on their higher order thinking. It helps teachers to thoughtfully shape learning intentions and learning experiences. It provides feedback and feed forward with regards to learning outcomes. It is the alternative of blooms taxonomy and best cognitive tool for teaching and learning process.

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# **CRITERIA FOR IMPROVING QUALITY EDUCATION**

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#### Abstract

Education must help learners' skill development with greater competence and greater confidence. It is possible only when education is a good quality-where the learning process is positive and helpful and where real learning take place. Today's world is complex and knowledge is growing at a fast pace – learning must go on throughout life. The document Tomorrow's Schools (1995) had asked the following question: "What are considered to be the basic requirements of a quality education - one that is meaningful, worthwhile, responsive to individuals and social needs - and every student without fail get those requirements, regulated as these are by principle of entitlement. "According to the Education For All: Global Monitoring Report 2005 - The Quality Imperative (EFA: GMR), two principles characterize most attempts to define quality in education: the first identifies learners' cognitive development as the major explicit objective of all education systems. The second emphasizes education's role in promoting values and attitudes of responsible citizenship and in nurturing creative and emotional development."Quality determines how much and how well children learn and the extent to which their education translates into a range of personal, social and developmental benefits. The wealth of nation depends upon how effectively its younger generation are trained and educated to take up the challenge of the future. With such a great responsibility it is very important to strengthen the teaching profession.

#### Introduction

"Teacher Education is the Mother of All Professions". We must hold our education system accountable to high standards of student achievement. For this, we need to move from monitoring inputs to regulating for outcomes. Schools and Colleges must be evaluated by readiness of students, employability of school graduates and student's performance on standardized assessments. Higher education institutes, similarly, must be evaluated based on measures such as student selectivity, placements, research papers published in premier academic publications, etc.

#### **Quality Education**

"Let us think of education as the means of developing our greatest abilities, because in each of us there is a private hope and dream which, fulfilled, can be translated into benefit for everyone and greater strength for our nation." (John F. Kennedy). There are three broad issues affecting the quality of education in India. They are **access, attendance and attainment.** 

#### Access

A large number of school going children are not even able to access schools. There are many reasons for access the quality of education.

• Poor infrastructure - few schools especially in rural and remote tribal areas those have minimum classrooms, no compounds and no drinking water facilities.

- Parents are not certain about the safety of the girl child traveling to school even if it is only 1/2 km away from home.
- There is a pyramidical structure as one goes from primary schools up to universities. (The system is designed to squeeze out students at each stage as primary, secondary, higher secondary, under graduation, post graduation, etc).

#### Attendance

Even if the child does get enrolled in a school, there is no guarantee that (s)he will attend. There are number of factors that keep the child away

- Teachers are held accountable for enrolment, seldom for attendance; they don't see the need to push.
- The child needs to work at home or in the family enterprise to bring money to help feed the family.
- The pedagogy is so hard and the subjects so irrelevant that no self-respecting child will be lured to stay on.
- Teachers are often uninterested in teaching. Their knowledge is limited. *Delhi University is offering students options of quitting a four-year diploma course in 2 years, if they want to be primary school teachers*. What message are we sending? That it is all right for poorly qualified people to be primary school teachers. Teachers are often used for all sorts of extension work by government.

## Attainment

The Indian education system was developed by the British rulers to **create clerks to help the few thousand British administrators run a country of 40 million people.** It was not designed to promote thought and encourage a culture of curiosity. As a result in most Indian schools, at least in the Public school's system, the kids do not attain knowledge and skills commensurate with their age. The pedagogy is very difficult and depends so much on being learning by rote.

- The evaluations, if they happen, are focused on a child being able to vomit out what (s)he has learnt by heart. *Study of history is reduced to dates and study of language to reciting poems.* The only thing I learned about Gandhi in school were his birth date, death anniversary, the dates (years) when he launched major agitations. To understand what his philosophy was, I had to wait till I was in college: that is when I could access some good books.
- Most of the kids coming in from poorly educated households do not have the atmosphere at home to aid learning. There are no books. There is no money to pay for extra coaching, even if a kid is a slow learner and needs that support. Parents are not capable of evaluating whether the kid is learning anything.

• The curriculum is constructed without skill making or perspectives to be able to build a working life. This is not only at the school level and also in college level.

# Criteria for Improving Quality of Teaching And Learning

"When learning and teaching continually improves, everything improves". The following six criteria are very useful for improve the quality teaching and learning.

# 1. Relevant aims

Education must arrive at a relevant balanced set of aims describing what learners should learn and why, the development of cognitive, creative and social skills and values; respect for human rights, the environment, peace and tolerance and cultural diversity. These put citizenship, democracy and human rights at the fore.

# 2. Subject balance

How subjects are defined, how many are taught and the time allocated to each. Inculcating among teachers, love for the country and appreciation of various national concerns and orienting teachers in new curricular areas.

# 3. Good use of time

Positive correlations are noted between instruction time and student achievement at both primary and secondary levels. Between 850 and 1,000 effective hours of schooling per year is broadly agreed as a benchmark.



# 4. Pedagogic Approaches for Better Learning

Child-centered active pedagogy, cooperative learning and the development of critical thinking and problem-solving skills need to be present.

# 5. Language policy

Language of instruction is a policy choice affecting curriculum, content and pedagogy. A balance needs to be struck between enabling people to use local language in learning and ensuring that they have access to global communication.

## 6. Learning from assessment

Regular, reliable, timely assessment is a key to improving learning achievement. The goals are to give learners feedback for improve the learning and teaching practices. Formative assessment is needed as a complement to formal examinations.

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## Curriculum

• The current state primary school curriculum comprises a commendable mix of areas of knowledge that offer opportunities

for the holistic development of individual pupils. The curriculum areas include English, mathematics, religion, science and technology, social studies, physical education, expressive arts (drama, art, music, dance) and personal and social

development. All these areas are important as they cover the multiple intelligences identified by leading educational psychologists (Gardner, 1983).

• The current curriculum also recognizes information and computer technology (ICT) skills as tools which can be used to access knowledge in all the other areas of the curriculum. It is essential that ICT skills become incorporated in the specific areas of the curriculum.

## Syllabi

- The primary school syllabi (2005) promote a developmental approach as they specify the learning outcomes in each subject with a clear learner-centered focus.
- Curriculum specialists need to work on further evaluating the learning outcomes that can be achieved within the given time frame in order to allow time for meaningful learning to take place and to avoid pressure on teachers and learners.

## Pedagogy

 Given that teachers will have less pressure to "prepare for the test", teaching needs to place greater emphasis on important knowledge and affective skills which cannot be easily assessed by written tests. The current reform provides space for teaching to emphasize application of knowledge, analysis, synthesis and evaluation besides recall and understanding. It also helpful for experience oriented activity where pupils develop personal and social skills and attitudes as they interact by sharing, discussing, acting responsibly, using different forms of communication and accepting diversity. With the freedom from the constraints of high-stakes examinations, teachers can further explore the use of cross-curricular, problem-solving and thematic activities, which allow pupils to



experience the association between different areas of knowledge. The reform is aimed to gradually lead to more interesting, enjoyable and meaningful teaching and learning experiences.

## Support

• The extension of mixed ability grouping to years 5 and 6 presents new challenges to teachers, especially those who have been used to teaching rigidly streamed classes. These challenges need to be recognized and addressed by offering teachers further training and possibly support materials to help them cope with the new challenges. Learning support assistants are also essential in supporting pupils who need special support in each class. However resource needs to be deployed more equitably and effectively. We also recognize that other cases may need further professional help.

## **Visionary Leadership**

• "Education is our passport to the future, for tomorrow belongs to the people who prepare for it today". (**Malcolm X**). College principals and heads of school have a crucial role to play in the implementation of the reform. Their driving force is essential and their need for support is acknowledged. A more distributed form dispersed, delegated and democratic forms of leadership imply greater empowerment where and when it matters (Bezzina, 2003). This means that college networks slowly become more responsible and accountable matters ready to deal with school life.

#### Conclusion

"When learning and teaching continually improves, everything improves. "(Alexander Dumas). A system that focuses on quality education allows children to develop and grow in school environments that are supportive and at the same time challenging, which nurture them to become confident, have good self-esteem and willing to strive forward yet at the same time feel a sense of responsibility towards others in their community. We believe that all our schools can be such places where children of different abilities develop, learn and grow together based on the effective teaching learning process. The quality of education is directly related to the quality of instruction in the classroom.

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