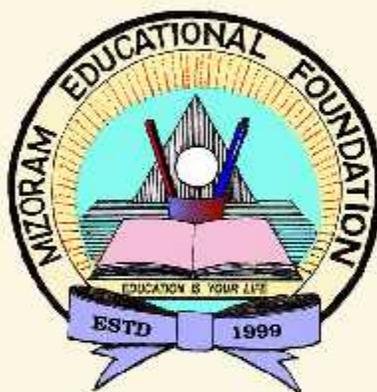


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Quality Issues in Preschool Education: A Study of Selected Preschools in Aizawl City

Lalhmasai Chuaungo*

Abstract

Childhood stage is the most fertile land for the cultivation of right kind of attitudes, values, principles and ideals and a balanced self-concept. It is, therefore, quite necessary to provide rich learning environment and experiences to children at this stage. This necessitates the provision of good facilities for education outside the home in the form of pre-school education. Preschool education refers to the education of children who are in the age group of 3 to 6 years, that is, up to the age of entry into primary school. It is a programme that follows play way and activity method. It aims at all round development of children helping their physical, language, social, emotional, cognitive and creativity development and thereby laying in them a foundation of sound personality. The present study is an analytical study of some aspects of preschool education to find out whether they are in conformity with experts' advice. It was conducted in Aizawl city and covered 18 anganwadis and 7 preschool sections of English medium schools. Data were collected through a questionnaire and later analyzed mainly in the light of specifications made in NCERT's publication (1996). The study reveals that preschools in Aizawl city did not meet the required norms and standards for quality preschools and quality of their programmes was far from satisfactory.

Key Words: Preschool education, Quality issues, Anganwadis, Preschool sections of English Medium Schools, Minimum specifications for preschools.

Introduction

Researches in the field of psychology and education have established the fact that the childhood stage is the most important and most impressionable period of one's life and it is during this time that vital foundations are laid down for the optimum

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development of individual's personality. Some research findings have also confirmed that the brain practically reaches its mature bulk before the age of six and that the mind, character and spirit advance more rapidly during the formative early childhood period than during any other period of growth. Creativity also peaks during this period. If a child is provided rich experiences through preschool activities, his creativity level and problem solving capacity can be developed considerably. It is the childhood stage that is the most fertile land for the cultivation of right kind of attitudes, values, principles and ideals and a balanced self-concept. It is, therefore, quite necessary to provide rich learning environment and experiences to children at this stage. This necessitates the provision of good facilities for education outside the home in the form of pre-school education.

Concept of Preschool Education

Preschool education is education of the children before they join the primary school. The term has been used mainly because this education precedes formal primary education. It, therefore, refers to the education of children who are in the age group of 3 to 6 years, that is, up to the age of entry into primary school. Preschools, thus, include preschool sections of schools such as Nursery, Kindergarten, Pre Primary, Early Childhood Education (ECE), Early Childhood Care & Education (ECCE) etc; independent preschools and government run centres for delivering non-formal preschools like Anganwadis, Balwadis etc. Preschool education is a programme that follows play way and activity method. It aims at all round development of children helping their physical, language, social, emotional, cognitive and creativity development and thereby laying in them a foundation of sound personality.

Methodology of the Study

The present study is an analytical study of some aspects of preschool education to find out whether they are in conformity with experts' advice. It was conducted in Aizawl city and covered 18 anganwadis and 7 preschool sections of English medium schools. Data were collected through a questionnaire and later analyzed mainly in the light of specifications made in NCERT's publication (1996).

Analysis of Data

This small study analyses data on outdoor play space and equipment, indoor play and learning materials, activities organized and educational qualifications and training of teachers/workers and helpers as follow:

Outdoor Play Space and Equipment

Sl. No.	Outdoor Play Space and Equipment & Materials	Anganwadi N=18		Preschool Section of English Medium Schools (PS of EMS) N=07	
		Available		Available	
		No.	%	No.	%
1	Space	3	16.66	3	42.85
2	Swing	3	16.66	0	0
3	Slide	0	0	0	0
4	See-saw	2	11.11	0	0
5	Ball	4	22.22	3	42.85
6	Skipping rope	5	27.77	2	28.57

PS of EMS

According to Quality Standards for Early Childhood Care and Education published by Ministry of Women and Child Development, Government of India, availability of adequate (at least 30 square meters) outdoor space for a group of 30 children is a Non- Negotiable Indicator for quality of ECCE centres. While this is so, only 16.66% of sample anganwadis and 42.85% of sample Preschool Sections of English Medium Schools (PS of EMS) have outdoor play space and the spaces available do not meet the required area. Besides, majority of both anganwadis and PS of EMS are without any outdoor play equipment and materials.

NCERT's publication on Minimum Specifications for Preschools (1996) states the following as essential for running a preschool or any ECE centre:

- 1) *Equipment for providing experiences like climbing, jumping, balancing, swinging, swaying, cycling etc.*
- 2) *Equipment like large and small balls, old tyres, rings etc. for throwing, rolling, catching and kicking experiences.*
- 3) *Sandpit/sandbox, trays plastic strainer, containers e.g., plastic mugs, katoris, different mould etc. for sand play.*
- 4) *A basin/bucket, mugs and cups of different sizes, sieves and floating toys for water play.*

The fact that majority of both the preschools not having outdoor play space and the availability of very few equipment for outdoor play reveals the poor and unsatisfactory condition of preschool education in Aizawl city.

Indoor Play and Learning Materials

Sl. No.	Commercially Procured Materials Used	Anganwadi N=18		PS of EMS N=07	
		Yes		Yes	
		No.	%	No.	%
1	See-Saw Duck	0	0	1	14.28
2	Abacus	1	5.55	1	14.28
3	Kitchen sets	0	0	1	14.28
4	Zig saw puzzles (animals)	0	0	1	14.28
5	Snake and ladder	0	0	1	14.28
6	Toys	3	16.66	2	28.57
7	Blocks (alphabets, numbers & building)	7	38.88	3	42.85
8	Swing	1	5.55	2	28.57
9	Slide	0	0	2	28.57
10	Pictures and charts	10	5.55	3	42.85
Teacher-Made Materials Used					
1	Picture charts	7	38.88	3	42.85
2	Nutritional charts	0	0	1	14.28
3	Prayer chart	0	0	1	14.28
4	Wooden blocks	1	5.55	1	14.28
5	Swede paper	0	0	1	14.28
Natural Materials Used					
1	Stones	0	0	3	42.85
2	Clay	1	5.55	2	28.57
3	Sand	5	27.77	1	14.28
4	Cotton	0	0	1	14.28
5	Leaves	0	0	1	14.28
6	Vegetables	0	0	1	14.28

It is striking to note from the above table that while preschool programme is activity and play based programme, the sample anganwadis and preschool sections are without most of the materials required for conducting the programmes. In this regard, the following materials are considered essential by NCERT (1996):

Quality Issues in Preschool Education: A Study of Selected Preschools in Aizawl City

- 1) *Manipulative play materials like form boards, mosaic, tiles, nesting toys, beads, wire, leaves, twigs, pebbles, clay, sand and any other material that the child can manipulate.*
- 2) *Constructive play materials like wooden/plastic blocks, boxes, plastic tubes, cartons etc.*
- 3) *Materials for imaginative play/role play-dolls, doctor's set, old dresses, toys/kitchen utensils, mirror, old spectacle frames, purses, old shoes, weighing scales, clock and other commercially available toys and traditional toys and games.*
- 4) *Commercially available or indigenously available materials to foster specific language and cognitive skills:*

Language Skills

- a) *Listening: story telling aids like picture books, puppets, flannel-graph, story cards, sound boxes etc.*
- b) *Vocabulary building and verbal expression: conversation charts pictures, flash cards, pictures dominoes, picture books, collection of rhymes and stories.*
- c) *Reading readiness: picture cards/strips/charts for auditory and visual discrimination and auditory and visual association.*
- d) *Writing readiness: slates, chalks, crayons, blackboard, drawing paper, stencils etc.*

Cognitive Skills

- a) *Sensory development: sound boxes, visual discrimination cards, touch cards, feely bags, smelling boxes, food items of varying tastes, etc.*
- b) *Concept formation: materials in the environment, cards, picture, jigsaw puzzles, self corrective puzzles for matching, sorting, arranging, classifying, problem solving, memory and sequential thinking.*

NOTE: Cognitive material should include material for all concepts such as colour, shape, space, pre-number concepts and concepts related to social, physical and biological environment.

- 5) *Material for Art/Craft Activities*
 - a) *Material for tearing/cutting and pasting e.g. scissors, paper, cloth, gum, fevicol etc.*

- b) *Material for drawing/colouring/painting e.g. crayons, paints, colours, paint, brushes, paper, coloured chalks, slates etc.*
- c) *Material for clay work e.g. clay, shallow basin, plastic cloth, strainer, tumbler etc.*
- d) *Material for stitching e.g. blunt needle, coloured thread, gunny bag, cotton cloth, beads etc.*

NOTE: Any useful waste material for example, cartons, bottles and lids, thermocol, cloth pieces, scraps, newspapers and magazines etc. can be used.

6) *Material for Music and Movement Activities*

Essential: a) Harmonium b) Dhapli

Desirable: a) Dhalak b) Drum c) Tambourine d) Triangles e) Rhythmic Cymbals f) Ghungross g) Any other locally available or improvised teacher made material.

The absence of the above mentioned materials in most of the anganwadis and preschool sections of EMS indicate that preschool programmes carried out in these centres are far from satisfactory.

Activities Organized

Sl. No.	Activities Carried Out	Anganwadi N=18		PS of EMS N=07	
		Yes		Yes	
		No.	%	No.	%
1	Conversation	18	100	7	100
2	Story telling	18	100	7	100
3	Rhymes & songs	18	100	7	100
4	Dramatization/ role play/puppet play	6	33.33	4	57.14
5	Free play with materials	11	61.11	5	71.42
6	Drawing	9	50	6	85.71
7	Colouring	13	72.22	7	100
8	Painting	8	44.44	4	57.14
9	Clay work	1	5.55	2	28.57
10	Sand play	2	11.11	0	0
11	Circle games	5	27.77	5	71.42

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12	Identify sounds of letters/alphabets	5	27.77	1	14.28
13	Read letters/alphabets	13	72.22	7	100
14	Join letters	4	22.22	4	57.14
15	Write letters/alphabets	12	66.66	5	71.42
16	Write name	4	22.22	2	28.57
17	Write numbers	7	38.89	6	85.71
18	Read/recite numbers	12	66.67	6	85.71
19	Do simple adding	1	5.55	2	28.57
20	Do simple subtraction	1	5.55	2	28.57
21	Join dots	2	11.11	4	57.14
22	Cut and paste	3	16.67	2	28.57
23	Paper folding	2	11.11	0	0

Collecting leaves, building blocks, buttoning, threading

All the anganwadis and preschools of EMS carried out conversation, story-telling and rhymes and songs in their centres. Colouring and reading letters/alphabets are other activities carried out by 100 per cent of preschools and 72 per cent of anganwadis. Drawing, free play with materials, writing and reading numbers and writing alphabets are again common activities among the preschools. Activities carried out by majority of the anganwadis and preschools indicate that 3R's is given importance by them. Regarding preschool programme, NCERT (1996) recommended the following:

1) *The ECE programme should be child centred and development and process oriented. Play activities should be planned in ways that would expose children to a variety of experiences which will*

- *enable them to feel secure and happy.*
- *promote their large and fine muscle development.*
- *promote their language skills.*
- *promote their cognitive skills.*
- *foster creativity in them.*
- *promote their social and emotional development.*

2) *The daily activities should be planned according to the age and developmental level of the children. There should be a flexible balance of activities for all aspects of development as well as a balance between individual and group activities, indoor and outdoor activities, vigorous and quiet activities and guided and free activities.*

3) The methodology for preschool programme should be play and activity oriented, and there should be no formal teaching of the 3 R's.

When the programmes of sample anganwadis and sample preschools are evaluated based on NCERT's recommendations, the activities organized are too less in number and are not adequate to bring about holistic development in children. Moreover, while NCERT said that there should be no formal teaching of the 3 R's, the sample preschool centres give importance to this than readiness programmes recommended by experts.

Educational Qualifications and Training of Teachers/Workers and Helpers

Sl. No.	Educational Qualifications of Teachers/Workers	Anganwadi Workers N=18		Teachers of PS of EMS N=15	
		Yes		Yes	
		No.	%	No.	%
1	Below Matric	2	11.11	0	0
2	HSLC	9	50	1	6.66
3	HSSLC	6	33.33	2	13.33
4	Graduate	1	5.55	11	73.33
5	Post-Graduate	0	0	1	6.66
Educational Qualifications of helpers		No.(19)	%	No.(5)	%
1	Below Matric	13	68.42	0	0
2	HSLC	6	31.57	2	40
3	HSSLC	0	0	2	40
4	Graduate	0	0	1	20
Training of Teachers/Workers		No. (18)	%	No.(15)	%
1	Job Training (a 3 - month course)	12	66.66	0	0
2	Montessori Training	0	0	1	6.66
3	Training on ECCE	0	0	1	6.66
4	D.El.Ed	0	0	1	6.66
5	Seminar/short course training	2	11.11	0	0
Training of helpers		No.(19)	%	No.(5)	%
1	Seminar/short course training	8	42.1	0	0

The above table reveals that preschool sections of EMS have more qualified teachers whereas anganwadis have more trained teachers/workers. In this regard, NCERT's specification states the following:

Qualifications of the Teacher

Essential: 1) Should have passed Class X with two years training in Early Childhood Education (ECE) OR Should have passed Class XII with one year training in ECE.

Note: In case of non-availability of qualified persons, the minimum qualification should be reduced to Class VIII with short term training supplemented with frequent refresher on the job training.

Desirable: 1) May be a post-graduate with specialization in child development/ECE.

2) Qualifications in skills e.g. music, art etc.

Qualifications of the helper

For the helper, minimum level of education should be VIII standard. (Can be relaxed in rural areas on grounds of non-availability).

Most of the private preschools have teachers with educational qualifications higher than the prescribed qualifications but not accompanied with professional qualification or training. Only one preschool teacher has undergone Montessori training and another teacher training on ECCE which are very relevant for the job. Besides, only 66.66% of anganwadi workers have undergone a 3-month job training which is a must for every worker. While NCERT's specification requires 1 or 2 years training on ECE, no teacher or worker has undergone the training. This indicates that the sample anganwadi workers and preschool teachers are not properly equipped with the required knowledge and understanding for conducting preschool programme.

Conclusion

The success of preschool programme greatly depends on the availability of equipment and materials for conducting the programme, the type of activities carried out, the teachers and their professional qualification or training etc. When anganwadis and preschools are evaluated based on the recommendations of experts in the field, it is found that they are still far from satisfactory. As preschool programme is play and activity based programme, lots of learning materials are required. The teachers/workers need to be aware of the importance of utilizing materials – commercially procured, teacher-made and natural. They should be resourceful enough to prepare learning materials from waste materials, low cost and no cost materials and also to utilize

natural materials available in the environment. It is important for them not to impart formal 3 R's but to organize various types of play, games and activities that will promote their physical, language, social, emotional, cognitive, aesthetic and creativity development. Since high educational qualification alone cannot make a person good preschool teacher, training in ECCE should be given top priority. Preschools in Mizoram still needs to do lots of things to improve the type of education provided to children of 3 or 4 to 6 years of age.

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An Evaluative Study of Marigold: Textbook in English for Class IV Published by SCERT, Mizoram.

Rodi Lalrammawii Hmar*

Abstract

This research article is an attempt to evaluate the prescribed textbook in English for Class IV learners of Mizoram. It is the latest edition published by SCERT, Mizoram and is being used in the current year. The evaluative method used is an ‘impressionistic’, overall evaluation, followed by an ‘in depth’ evaluation of the textbook. The material, layout, design and cost of the textbook are briefly studied. Two units (Unit 3 and 8) are chosen for an ‘in depth’ evaluation. The integrated skills or LSRW (Listening, Speaking, Reading and Writing) along with grammar, vocabulary, and pronunciation are implemented in the activities of the units. However, one prominent setback is the ‘excess’ presentation of activities when evaluated in terms of the time frame teachers usually work within. The paper tries to purport the fact that ‘lesson plan’ and the way of ‘implementation’ would prove most significant to fully utilize the evaluated textbook.

Keywords: *evaluation, textbook, integrated skills, teacher, learner, ESL (English as a Second Language), ELT (English Language Teaching).*

This paper is an attempt to evaluate the prescribed textbook in English for Class IV learners of Mizoram. The book is the latest edition (December 2014) by SCERT, Mizoram which is being used in the current year. As the Director of SCERT, Mizoram has mentioned in the ‘Foreword’, the textbook has been “adapted and translated for learners in Mizoram.” The adaptation is a mandatory process as every language textbook has to be cultural specific and relevant for the proposed learners. The NCERT has lent the framework of various language textbooks across the country. The Textbook Development Committee comprises of eminent professionals, so also the Editors and members of the Sub- Committee in English textbooks at the Elementary Level under the SCERT. The textbook under evaluation consists of ten units and a teacher’s guide/ reference is provided at the end of each unit.

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There have been numerous suggestions by researchers about the evaluative method of language textbooks, especially in the context of learners of ESL (English as a Second Language), or EFL (English as a Foreign Language). It has been suggested that it would be best for textbook evaluation schemes to adopt a 'leveled' approach in evaluation which would initially present an overview- 'impressionistic' evaluation followed by an 'in depth' evaluation. (Wong 11) An 'impressionistic' evaluation consists of the study of the design, structure, sequence and cover of the textbook. An 'in depth' evaluation would entail the selection of one or two chapters from the textbook and the subsequent study of the skills and activities projected henceforth. This may be followed by suggestive measures and empirical approaches. The evaluation of any language textbook, as can be assumed, is a challenging and yet imperative process. The questions that can arise in the process of evaluation may be briefly mentioned as follows:

- 1) Is the textbook reliable and cost- effective?
- 2) Are the cover and illustrations provided in the textbook visually appealing?
- 3) Does the textbook provide 'task based' learning and teaching approaches?
- 4) Are the instructions 'learner centered' and 'target oriented'? (the target here being to impart English language for learning and pragmatic purposes)
- 5) Do the tasks or activities in the textbook provide chances to learn the 'integrated skills' or LSRW (Listening, Speaking, Reading and Writing) alongwith grammar, vocabulary, and pronunciation?

Even though a language textbook may meet these criterion mentioned above, it may have an inevitable setback as a textbook "cannot address individual learning styles, differences of learners and the requirements of every classroom setting." (Wong 8) However, language textbooks have come a long way from exhibiting monotonous drilling exercises, to what it is today, that is, promoting task based and authentic activities for a more fun and pleasurable language learning experience.

The textbook under evaluation, being a recent edition, has a visually appealing cover with appropriate and vibrant illustrations within the texts. The editor, co- editors, and members of the textbook adaptation are eminent professionals as aforementioned. It is also imperative and noteworthy to acknowledge the fact that teachers take part in the composition, or adaptation of language textbooks. As teachers are aware of the learner's need, their presence is substantial. The price of the textbook, *Marigold*, is fifty five (55) in Indian Rupees which is supposed to be affordable and appropriate given its material, layout and design. The 'teacher's page' provided at the end of each

An Evaluative Study of Marigold: Textbook in English for Class IV Published by SCERT, Mizoram.

unit, which may be resourceful is, however, open to a certain critique. Teachers may depend solely on the textbook alone which can hinder their creativity; it can also be overtly tedious for some. Even though textbooks may prove to be valuable in cases where authentic materials may not be readily available, the ability to implement one's creative output can be refreshing and rewarding for both teachers and learners. In an exam oriented education system like India, textbooks cannot always be utilized as purported by its compilers or editors. Since the units have to be covered within a specific time frame, the activities embedded in the texts may not always be exercised. In this stance, the teacher plays an important role, to exercise his/ her creativity in order to deliver a compact learning experience. This may sometimes require, for the teacher, (i) to sum up the lessons highlighting important words/ vocabularies, (ii) to extract and compile the task based activities in order to implement language skills (LSRW etc.) and (iii) to bring in authentic materials to supplement what have been taught in each unit. Cunningsworth has pointed out the fact that the materials and activities implemented in language learning classrooms should always "provide practice in integrating the skills in models of real communication."(20) Since language learning (especially in cases of learning ESL) has its practical value for communicative purposes, the 'integrated skills' should always be taught as an entity, or else the communicative purpose will never be achieved.

For an 'in- depth' evaluation of the textbook, two units (Unit 3 and 8) have been chosen for close study. Unit 3, as indicated in the 'teacher's page', tries to impart the theme of the importance of games and sports. The contextual poem is 'Run' by Mary Daunt. The grammatical skill that the poem tries to impart is the use of the present continuous tense. The poem itself is quite appropriate as it describes a physical activity- 'run'. The suffix, '-ing' is used as a denotation of the present continuous tense, and it is usually suffixed to a verb. The title of the poem may also be supplemented with other related activities, like walk/walking, jump/jumping, hop/hopping, skip/skipping, and so on. The illustrated pictures and the activities associated with it bring out the use of this grammatical syntax. For instance, pictures 1 and 6 may be described by learners as "The boys are playing" and "The girls are swimming" respectively. The preceding activity of questions and answers also bring out the use of '-ing': for example,

“(v) What are the girls doing in picture 6?
They are _____”

Since the picture presents girls swimming, the answer is evident from the picture itself. Through this kind of activity, learners may unconsciously get the notion of the use of certain grammatical syntax. The vocabulary activity tries to familiarize learners with similar sound words but which have different meaning and spelling. The LSRW

skills are presented well enough, and they are integrated with the other skills (grammar, vocabulary and pronunciation). For instance, the vocabulary activity mentioned above incorporates verbal activity (speaking), and listening to the words being dictated.

The poem is followed by an illustrative story, “The Great War of Animals”. The story itself is presented in an appealing way with colored illustrative pictures. The ‘reading skill’ assessment immediately follows the story, as in every other unit. However, from the ‘writing skill’ assessment, the story is sidelined. From this perspective, the unit seems to be a little bit disjointed. The story of the war of animals is interesting in itself, with the possibility of teaching numerous skills. However, when put in tandem to the preceding poem and the activities following the story, it merely becomes a refreshing and exciting interlude. This being said, it would be relevant to mention the fact that the evaluation of any textbook tends to get subjective. Therefore, the thoughts and ideas which permeate the compilers’ or editors’ perspective may not always be identified by the evaluator. The activities in the same unit, after the story, are nevertheless related to the implementation of the use of ‘-ing’. For instance, the pictures in one of the activities present members of a family ‘in action’. The grandma is *drinking* milk, and the girl/daughter, Mawii, is *skipping*. Almost all the activities are loaded with sports and games imageries.

Unit 8 deals with the theme, “Caring for plants and trees”. The texts provided, namely, ‘A Watering Rhyme’ (poem) and “The Giving Tree” (story with dialogues) are relevant to the theme. In the activities following the poem, the ‘integrated skills’ are assessed through ‘rhyming words’ like “early, curly, surely”, followed by an identification of silent letters in words like “hour”, “knit” and so on. The vocabulary and pronunciation activities are contextual based. For instance, the arrangement of jumbled letters to form a meaningful word: PAETWEES= S———A (Answer: Sweetpea), or JMINEAS= J———E (Answer: Jasmine). All the jumbled letters form the name of different flowers which is indeed in tandem to the poem, which talks about flowers and taking care of them. Along the same line, the word building crossword is also filled with the name of flowers. There is also a punctuation based activity, whereby learners have to insert certain punctuation marks in a given sentence to make it meaningful.

The activities following the story, “The Giving Tree”, are again related to the text itself. The use of adverb and singular and plural words are imparted in the first two or three activities. The instruction (under ‘Word building’) seems to be challenging-

1. Make new words and complete the sentences.
- (d) The tree gave its fruit to the boy _____. (happy)

An Evaluative Study of *Marigold: Textbook in English for Class IV* Published by SCERT, Mizoram.

A 'new' word is formed simply by adding 'ily' to the word 'happy'. This kind of seemingly challenging activity may be interesting for learners, not to mention the fact that they are unconsciously learning the use of adverbs. In this case, the instruction becomes very significant. Instead of instructing the learners to 'fill up the blanks with adverbs', this activity instructs learners to 'make new words'. It is far more effective to motivate and gear up the learners with this kind of instruction. The feeling of being 'innovative' may be initiated in the learners as well.

Composition, an important part of writing skill, is also implemented in the activities following the story. Four sentences are extracted from the story, and the learners are instructed to rearrange them, using adverbial clauses. The task based activities like working in a group, and acting out (making the shape of a tree with your body) are supplemented with important skills. For instance, while making the shape of a tree, the actors would have to communicate how they 'stretch', 'bend', or 'twist' their body while acting. This kind of activity energizes the learning atmosphere, while imparting the important language skills. However, as aforementioned, the activities specifically in this unit may prove to be too hectic for both teachers and learners. Since there is a time frame to complete each unit, the ability to implement every activity may be a strenuous and an even impossible task.

The positive feedback in the course of the evaluation of *Marigold* would be the fact that every unit imparts a sense of awareness to the learners. It may be in terms of environmental awareness, or the initiation of the pleasure of learning itself. Every unit coheres to the implementation of the skills for language learning. However, as previously mentioned, some units have 'excess' activity, which may interfere with the consistency of language teaching. This may be the case because of time limit and constrain. Therefore, there is the doubt that the textbook may not be fully utilized for a meaningful language teaching purpose.

In order to fully utilize the textbook, teachers would play the most significant role. As they are the facilitators and the ones to implement the textbook, they need to have a specific and organized 'lesson plan'. Also, the 'implementation' of the lessons and the activities has to be executed in an organized and creative way. Textbooks, as aforementioned, may not always address the need of every individual learner. Since the teacher is the facilitator, he/ she may best know the needs of the learners. Keeping this in mind, each unit may be taught according to the progress of the learner. As has been pointed out by Cunningsworth,

A textbook should not be regarded as an absolute authority and one should not depend on it too much, but rather take whatever is beneficial to teaching and learning and adapt, complement and modify what is not satisfactory. (Wang 16)

Even though textbooks may be compiled and adapted in the best possible way, they are in the hands of the teachers for its execution and implementation. The need of the learners should be the first priority for every ELT (English Language Teaching) classroom. Therefore, textbooks may be ‘adapted’, or ‘modified’ to meet the learner’s need.

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Making Higher Education More Inclusive Through Open and Distance Education: Evidence From Mizoram

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Abstract

Open and distance education system has emerged as an important alternative to formal education in the modern world. Due to its easy accessibility, cost-effectiveness and flexibility, the system has been able to reach people living in far flung and isolated areas. Mizoram, one of the states in the North East corner of India, too has witnessed a significant growth in open and distance learning system both at the tertiary and at the school level since the late eighties. There is a rapid quantitative expansion in study centres, diversification of courses and in enrollment of learners. The present study is designed to examine these aspects as they have important implications for making higher education more inclusive.

Key terms: *open and distance education, formal education, and inclusive higher education.*

Introduction

Inclusive and qualitative expansion of higher education have been the dominant theme and major challenges facing higher education in the country (UGC, 2011). Over the last two decades, India initiated several development-linked strategies for promotion of higher education. These include, among others, the Report of the 'National Knowledge Commission' (NKC), the Report of 'The Committee to Advise on Renovation and Rejuvenation of Higher Education' and the Conclave of Vice-Chancellors and other Forums of Educationists. During the Eleventh Five Year Plan (FYP), the higher education system witnessed a quantum jump in expansion, diversification and strengthening. The basic policy direction for higher education during the 12th FYP has been to 'maximize the output/outcome of access, equity and quality, inclusive and qualitative expansion of higher education meeting the international benchmarks' (UGC, 11). Open and distance education in India has played an important

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role in enhancing access to higher education and making higher education to a more inclusive system and providing diversification of the structure of course contents. Open and distance education (ODE) has recently experienced an explosive growth in the world. India too witnessed a dramatic expansion in open and distance education during the last four decades. Open and distance education has grown more rapidly than any other form of education over the past thirty years that it now become well integrated in the educational structure of the country. It has provided access to education to many learners who may never had the opportunity to receive education such as those in geographically remote areas, housewife, full-time employees, school drop-outs etc. Open and distance education has contributed significantly in democratising education especially at higher level and professional courses.

Objectives and Methods of Study

The Government of India has committed to expand open education in backward regions, remote and inaccessible tribal areas of the eastern states and north eastern states of India. On account of this, Mizoram has also seen a phenomenal growth of open and distance education since the later part of the 1980s. The present paper attempts to make an analysis of the growth of open and distance education in Mizoram with the following specific objectives in mind:

- (i) To give a broad overview of the growth of Study Centres and Accredited Institutions (AI) including the district-wise distribution of Study Centres/AI;
- (ii) To analyses the enrolment trend under open and distance educational institutions in Mizoram;
- (iii) To examine programme –wise enrolment under IGNOU, Aizawl Regional Centre;
- (iv) To highlight a brief profile of open and distance learners in Mizoram

The study uses both primary and secondary data. Primary data are obtained from various open and distance education institutions operating in the State using a structured questionnaire and interview schedule. Secondary data are obtained from various published sources such as books, Annual Reports and others. Data are presented in table and simple descriptive statistics such as percentages are used to analyse data. Open and distance educational institutions are divided into school and university level. Growth of open and distance education is examined in terms of study centre in respect of higher education and accedited institutions for school level. Growth in enrolment in different programme of studies is also analysed to examine the pattern of diversification in the field of higher education.

Data Analysis and Results

Growth of study centres/accredited institutions

The growth of open and distance education centres in Mizoram is presented in Table 1. Open and distance education in Mizoram began when the first IGNOU Study Centre was opened at Aizawl College in 1988 under IGNOU Regional Centre, Shillong. This was followed by the opening of two Accredited Institutions (NIOS) under National Open Schooling in 1989. Again, in 1998, two universities, i.e., Himachal Pradesh University and Madurai Kamaraj University (Tamil Nadu) opened their Study Centres at Aizawl. The number of open and distance learning centres has increased considerably since then.

Table 1
Decade-wise Growth of Open and Distance Education Centres in Mizoram

Year	IGNOU, Regional Centre		Madurai Kamaraj University Study Centre	Himachal Pradesh University Study Centre	NIOS Accredited Institutions (AI)	Total
	Study Centres	Partner Institutions under Convergence scheme & Community College				
1980-1990	1	-	-	-	2	3
1991-2000	6	-	1	1	4	12
2001-2010	31	12	-	-	7	50*
Total	38	12	1	1	13	65

Note : Madurai Kamaraj University and Himachal Pradesh University Study Centres have become non-functional since 2008.

Sources: IGNOU Regional Centre, Aizawl, Madurai Kamaraj University Study Centre, Aizawl, Himachal Pradesh University Study Centre Aizawl, & www.nios.ac.in

During 1980-1990, there were only 3 open and distance learning centres in Mizoram; the number increased to 63 during 2001-2010, recording an increase of 20 times over the period. Between the two decades 1981- 2000, the number of open and

distance learning centres increased by fourfold from 3 in 1981-1990 decades to 12 centres in 1991-2000 decades. The number of open and distance learning centres further increased to 50 in 2001-2010 from 12 in 1991-2010, implying more than a fourfold increase. In 2010, there were 63 open and distance learning centres – 38 Study Centres and 12 Partner Institutions/Community Colleges under IGNOU Regional Centre, Aizawl and 13 Accredited Institutions under NIOS Regional Centre, Guwahati.

The number of Study Centres under IGNOU rose significantly from 1 to 31 during 1981-1990 to 2001-2010 decades. There was only one study centre in 1981-1991, and has increased to six in a decade (1991-2000), registering a six - fold increase. With the establishment of IGNOU Regional Centre at Aizawl in December 2000, the increase in the number of Study Centre further got momentum during 2001-2010. The number of study centres at IGNOU jumped from 6 to 31 in 1991 to 2001, showing a five- fold increase between the two decades. The significant feature of this decade was the establishment of 10 Partner Institutions and 2 community colleges.

The Partner Institutions/ community college scheme of GNOU launched in 2009 offers both under-graduate courses and even may enrol their own students for certificate or diploma programme. The programmes offered are primarily in the area of vocational studies and the community need based programmes. In 2010, there are 38 study centres, 10 Partner Institutions and 2 community colleges under IGNOU, Aizawl Regional Centre. IGNOU Aizawl Regional Centre has become the largest institute offering open and distance education in Mizoram.

The number of IGNOU Study Centres and NIOS Accredited Institutions in each district is shown in the following table:

Table 2
District-wise distribution of open and distance education institutes in Mizoram

Name of Districts	IGNOU Study Centres &		NIOS Accredited		Total	
	No	PC	No	PC	No	PC
Aizawl	28	56	5	38.4	33	52.4
Lunglei	4	8	3	23.1	7	11.1
Kolasib	2	4	1	7.7	3	4.8
Mamit	3	6	-	-	3	4.8
Champhai	4	8	1	7.7	5	7.9
Serchhip	3	6	1	7.7	4	6.3
Lawngtlai	4	8	1	7.7	5	7.9
Saiha	2	4	1	7.7	3	4.8
TOTAL	50	100	13	100	63	100

Source: IGNOU Aizawl Regional Centre (2009) and NIOS (2009)

There were 63 Study Centres/Accredited Institutions in Mizoram in 2010. District-wise data shows that there were 28 Study Centres including Partner Institutions and Community Colleges under IGNOU Regional Centre and 5 Accredited Institutions under NIOS in Aizawl District. Lunglei district, the second biggest in terms of population, had 4 Study Centres under IGNOU Regional Centre and 3 Accredited Institutions under NIOS Regional Centre. The number of open and distance learning centre in other districts were - 5 Study Centres/Accredited both in Champhai and Lawngtlai districts, 3 Study Centres/Accredited Institutions in both Kolasib and Saiha district and 3 Study Centres under IGNOU Regional Centre in Mamit district. Mamit district is the only district in Mizoram that has no Accredited Institution under NIOS.

The analysis of the growth trends of open and distance learning centres in Mizoram clearly reveals that the facilities for open and distance education increased significantly during the last three decades both at the tertiary and school level. The opportunities for open and distance education were available in all the districts of Mizoram. The growth pattern between IGNOU and NIOS, however, showed that the facilities under IGNOUS have increased relatively much faster than under NIOS.

Growth of enrolment in open and distance education institutes in Mizoram

The growth trend of enrolment in different open and distance educational institutes in Mizoram is shown in Table 3. It shows that enrolment in open and distance education increased consistently and significantly over a period between 1988-89 and 2010-11. In 1988-89 there were only 7 learners enrolled in IGNOU open and distance education, whereas, in 2010-11, the number rose to 10419 learners, showing approximately 1488 times increase over the period. Enrolment under IGNOU grew approximately by 703 times during 1988-89 to 2010-11. There were 7 learners under IGNOU but by 2010-11, the number increased to 4919. Meanwhile, there were only 300 learners in NIOS in 1989-90, the number escalated to 5500 in 2010-11 implying a little more than eighteen fold increased.

Enrolment growth in Madhurai Kamraj University (MKU) during its existence in Mizoram between 1998-99 and 2007-08 shows an erratic pattern. As on 1998-99, there were 54 learners, increased to 185 in 2007 showing a little more than three-fold increase. However, by 2007 enrolment drop to 90 learners only. On the other hand, enrolment under Himachal Pradesh University witnessed inconsistent growth trends during 1998-99 to 2007-08. The number of learners enrolled increased from 223 in

1989-99 to 360 in 1998 showing 42 per cent increase; while enrolment gradually decreased and by 2002-2008, there were only 112 learners.

Table 3
Growth of Enrolment in Open and Distance Education institutes in Mizoram

Year	IGNOU	MKU	HPU	NIOS	TOTAL
1988-1989	7	-	-	300	307
1998-1999	49	54	223	1289	1615
1999-2000	60	41	316	2500	2917
2000-2001	90	212	246	2800	3348
2001-2002	403	92	233	2800	3528
2002-2003	663	118	293	3000	4074
2003-2004	1366	138	190	3500	5094
2004-2005	1861	110	203	3500	5674
2005-2006	2770	110	220	3174	6274
2006-2007	3452	185	180	4214	8031
2007-2008	4344	90	112	2889	7435
2008-2009	5236	-	-	4451	9687
2009-2010	5921	-	-	5560	11481
2010-2011	4919	-	-	5500	10419

Sources: IGNOU Regional Centre, Aizawl; Madurai Kamaraj University Study Centre, Aizawl; Himachal Pradesh University Study Centre Aizawl; and NIOS Annual Report 2008-09

The analysis on the pattern of enrolment trend clearly shows that there was a phenomenal increase in the enrolment in open and distance education during 1988-89 to 2010-2011. IGNOU and NIOS are the two institutes which showed consistent growth in enrolment during the period. This clearly indicates that open and distance education which began as a second channel of educational opportunity has grown to attract a large number of learners who want to break away from the 'rigidities of the formal system of education who consciously opted for a more flexible and pedagogically sound system of education.

Growth of programme-wise enrolment under IGNOU Regional Centre

As on 2009, IGNOU Regional Centre, with a network of 38 Study Centres, provided academic programme ranging from certificates to master degree level across the State. The growth of enrolment in different programmes level under in Regional Centre, Aizawl during 2001-2008 has been shown in Table 4.

Table 4
Growth of enrolment under IGNOU Regional Centre, Aizawl

Programme level		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Master Degree	N	56	-	153	65	320	354	468	243	1095	1004
	PC	13.8		12	5	21.3	12.8	18.1	10.6	22.9	20.4
Post graduate diploma	N	7	-	19	13	9	18	-	21	18	35
	PC	1.7		1.5	1	0.6	0.6		0.9	0.4	0.7
Bachelor Degree	N	292	-	1053	1158	888	1977	2101	1506	3512	3379
	PC	72.3		82.4	88.3	59.1	71.5	81.2	66	71.7	69
Diploma	N	2	-	-	5	10	1	-	16	89	157
	PC	0.5			0.4	0.7	0		0.7	1.9	3.2
Certificate	N	47	-	52	70	275	415	19	478	60	323
	PC	11.6	-	4.1	5.3	18.3	15	0.7	21	1.2	6.6
TOTAL	N	404	663	1277	1311	1502	2765	2588	2280	4774	4898

Note: Figures in brackets indicate percentage to total

Source: IGNOU Regional Centre, Aizawl, 2010

The table reveals that as on 2001, there were 404 learners under IGNOU Regional Centre, whereas, in 2010, the number increased to 4898 learners, showing approximately an eight-fold increase. The number of learners in Master degree course which was 56 learners in 2001 rose to 1004 in 2010. Enrolment in Master degree course programme increased from 13.8 per cent in 2001 to 20 per cent in 2010. Enrolment in postgraduate diploma course was relatively few compared to other courses. Only 7 learners were enrolled in 2001, accounting 1.7 per cent of the total enrolment; by 2010, enrolment increased to 35 learners but its share fell down to 0.7 per cent.

The number of learners in Bachelor Degree Programme increased significantly during 2001-2010; however, its share declined gradually. In 2001, total enrolment was 292 learners in 2001 but by the year 2010, the number increased to 3379, registering more than eight fold increased. The share of this programme in the total enrolment was 72.3 per cent in 2001; its share increased to 88.3 per cent in 2004 and then fell down to 69 in 2010. The number of learners in diploma programme increased substantially. There were only two learners in diploma programme in 2001; whereas, the number rose to 157 learners in 2010. This shows that the number of learners in diploma programme has risen approximately 78.5 times over the period. In certificate course, total enrolment in absolute terms increased from 47 learners in 2001 to 323 learners in 2010, showing approximately nearly seven-fold increase whereas its relative share decreased from 11.6 per cent in 2001 to 6.6 per cent in 2010.

A brief profile of open and distance learners

An analysis of student profile serves two objectives. First, since open and distance education is learners-centred, it is crucial to know the nature and composition of the learners in order to formulate suitable curriculum- course material development and appropriate organization structure for student support services. Second, student profiles give the planners and decision-makers the response of various social groups which the open universities are supposed to serve. The distribution of learners by gender, as given in Table 5, reveals that a high proportion of students were females. Overall, female enrolment accounted 54.6 per cent while that of males accounted 45.4 per cent. The share of female enrolment was 66.4 per cent at the school level; 50 per cent at the under graduate and 46.1 per cent at the post-graduate level. The share of male enrolment which was 33.5 per cent at the high school level increased to 50.2 per cent at the undergraduate level and nearly to 54 per cent at the post graduate level. It can be observed from the analysis that as the level of education increases, female enrolment gradually declines while male enrolment shows a rising tendency.

Table 5: Distribution of Open and Distance Learners by Sex

Gender	IGNOU				NIOS		TOTAL	
	Postgraduate		Undergraduate		School		Number	PC
	Number	PC	Number	PC	Number	PC		
Male	42	53.8	120	50.2	51	33.5	213	45.4
Female	36	46.1	119	49.8	101	66.4	256	54.6
Total	78	100	239	100	152	100	469	100

The marital status of open and distance learner is indicated in table 6. Majority (73.3%) of the learners were unmarried; only 26.7 per cent were married. The percentage of unmarried learners was highest at the high school level (90.1%) followed by undergraduate (65.7%) and the post-graduate level (64.1%).

Table 6: Distribution of Open and Distance Learners by Marital Status

Marital Status	IGNOU				NIOS		TOTAL	
	Postgraduate		Undergraduate		School		Number	%
	Number	%	Number	%	Number	%		
Married	28	35.9	82	34.3	15	9.9	125	26.7
Unmarried	50	64.1	157	65.7	137	90.1	344	73.3
Total	78	100	239	100	152	100	469	100

Conclusion

Open and distance education has made an important contribution in the development of educational facilities in Mizoram. During its short span of existence, the growth of ODE both at the school and tertiary level has been quite significant. The profile of learners under open and distance education indicated that the system has given access to higher education by women and even married people. However, the growth has been still dominated by traditional subjects. However, in order to meet the demand of manpower requirement of the 21st century, ODE learners must move towards a more innovative and dynamic programme such as need based and skill based programme. Moreover, the system needs to be strengthened by incorporating quality parameters in its functioning and the foundations of ODE in Mizoram needs to be restructured to meet the challenges of a more inclusive educational system in the state.

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The Four Pillars of Education and the Models of Teaching

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The 'Four Pillars of Education' were originally set out in a report for UNESCO by the International Commission on Education for the Twenty-First Century chaired by Jacques Delors (UNESCO, 1996). These pillars underline the very breadth and depth of UNESCO's vision of education within and beyond schooling. This report firmly held that education must be organized around four fundamental types of learning throughout a person's life: *learning to know, learning to do, learning to live together, and learning to be*. Although these four fundamental types of learning, appropriately termed as the 'Four Pillars of Education' may be defined separately, they form an integrated whole and should ideally be present in all pedagogical encounters and the curriculum as a whole (Scatolini, 2010).

The UNESCO's report '**Learning: The Treasure Within**' was based mainly on The Four Pillars of Education which cannot be defined separately; they form an integrated whole, complementing and strengthening each other. As education is total experience and as teaching means more than inculcating particular skills, students must be taught and provided experiences which will enable them to think and act creatively and critically in appropriate contexts. As such, these Four Pillars of Education provide us with a checklist of four basic components of holistic education: learning to know, learning to do, learning to live together and learning to be.

Learning to Know

This type of learning is radically different from 'acquiring itemized codified information or factual knowledge', as often stressed in conventional curriculum and in 'rote learning'. Rather it implies 'the mastering of the instruments of knowledge themselves'. 'Acquiring knowledge in a never-ending process and can be enriched by all forms of experience'. 'Learning to know' includes the development of the faculties of memory, imagination, reasoning, problem-solving, and the ability to think in a

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coherent and critical way. It is 'a process of discovery', which takes time and involves going more deeply into the information/knowledge delivered through subject teaching. 'Learning to know' calls upon the power of concentration, memory and thought, so that it enables children to benefit from ongoing educational opportunities continuously arising (formally and non-formally) throughout life. Therefore 'learning to know' is regarded as both a means and an end in learning itself and in life. As a means, it enables individual learners to understand the very least enough about the nature, about humankind and its history, about his/her environment, and about society at large. As an end, it enables the learner to experience the pleasure of knowing, discovering and understanding as a process.

Learning to Do

Learning to do simply means the application of what learners have learned or known into practices; it is closely linked to vocational-technical education and work skills training. However it goes beyond narrowly defined skills development for 'doing' specific things or practical tasks in traditional or industrial economies. The emerging knowledge-based economy is making human work increasingly immaterial. 'Learning to do' call for new type of skills, more behavioral than intellectual. The material and the technology are becoming secondary to human qualities and interpersonal relationship. Learning to do thus implies a shift from skill to competence, or a mix of higher-order skills specific to each individual. 'The ascendancy of knowledge and information as factors of production systems is making the idea of occupational skills obsolete and is bringing personal competency to the fore'. Thus 'learning to do' means, among other things, ability to communicate effectively with others; aptitude toward team work; social skills in building meaningful interpersonal relations; adaptability to change in the world of work and in social life; competency in transforming knowledge into innovations and job-creation; and a readiness to take risks and resolve or manage conflicts.

Learning to Live Together

In the context of increasing globalization, the Delors Commission places a special emphasis on this pillar of learning. It implies an education taking two complementary paths: on one level, discovery of others and on another, experience of shared purposes throughout life. Specifically it implies the development of such qualities as: knowledge and understanding of self and others; appreciation of the diversity of the human race and an awareness of the similarities between, and the interdependence of, all humans; empathy and cooperative social behavior in caring and sharing; respect of other people and their cultures and value systems; capability of encountering others and resolving conflicts through dialogue; and competency in working towards common objectives.

Learning to Be

This type of learning was first conceptualized in the Report to UNESCO in 1972, Learning To Be (Edgar Faure et al), out of the fear that ‘the world would be dehumanized as a result of technical change’. It was based on the principle that ‘the aim of development is the complete fulfillment of man, in all the richness of his personality, the complexity of his forms of expression and his various commitments – as individual, member of a family and of a community, citizen and producer, inventor of techniques and creative dreamer’. **Learning to be** may therefore be interpreted in one way as learning to be human, through acquisition of knowledge, skills and values conducive to personality development in its intellectual, moral, cultural and physical dimensions. This implies a curriculum aiming at cultivating qualities of imagination and creativity; acquiring universally shared human values; developing aspects of a person’s potential: memory, reasoning, aesthetic sense, physical capacity and communication/social skills; developing critical thinking and exercising independent judgment; and developing personal commitment and responsibility.

It is important to note that the four pillars of learning relate to all phases and areas of education. They support and interpenetrate one another and should therefore be applied as basic principles, cross-cutting themes and generic competences for integration in and across subject areas or learning domains.

Concept of Models of Teaching

A model of teaching is defined as an instructional design which describes the process of specifying and producing particular environmental situation which cause the students to interact in such a way that a specific change occurs in their behaviour. The core of the process of teaching is the arrangement within which the students can interact. Models of teaching have been developed to help a teacher to improve his capacity to reach more children and to create a richer and more diverse environment for them. Basically, models are prescriptive teaching strategies designed to accomplish particular instructional goals. They are prescriptive in the sense that the teachers’ responsibilities during the planning, implementing and evaluating stages are clearly defined. Models of teaching differ from general strategies in that models are designed to reach specific goals and make teaching more systematic and efficient.

According to Joyce and Weil (1972), “Teaching model is a pattern or plan, which can be a curriculum or courses to select instructional materials and to guide teachers’ actions”. Educators and psychologists have designed several types of teaching models which provides suitable guidelines to the teachers for modifying the behaviour of the learners.

Types of Modern Teaching Models

1. Information Processing Models
2. Social Interaction Models
3. Personal Models
4. Behaviour Modification Models

Information Processing Models

Information processing models refer to the way people handle stimuli from the environment, organize data, sense problem, generate concepts and solution to problems and use verbal and non verbal symbols.

Social Interaction Models

The social interaction model is based on a conception of society in which people differ in their views and priorities and in which social values legitimately conflict with one another. Resolving complex controversial issues within the context of productive social order requires a citizen who can talk to one another and successfully negotiated their difference. In the social interaction model, the social aspects of human being are kept in mind and their social development is emphasized. As the human nature emphasizes the social creation more, therefore, its analysis comes under this teaching model.

Personal Models

Personal models of teaching are based on the assumption that a person himself is the source of education. These models keep in focus the individuals and his needs. The individual is provided with a stimulating environment in which he can feel comfortable to the maximum for the welfare of the society. All these models attempt to adopt teaching to the characteristics of the individual in order to increase his personal flexibility and his stability and his ability to relate to others productively. Many of the person-oriented models are non-directive or facilitating with respect to activities. In this model the personal development is essentially emphasized, more emphasis is given to the development of internal and external powers of the pupils by developing their affective domain, which facilitates the development of self-imagination and self-understanding.

Behaviour Modification Models

Behaviour modification models stress changing the external behaviour of the learners and describe them in terms of visible behaviour rather than underlying behaviour. Skinner is the chief exponent of this model. The main psychological bases

of these models are stimulus control and reinforcement as put forward in B.F. Skinner's theory of Operant Conditioning and Bandura's theory of Social Learning. The Behavior Modification Model is based on taking a person and "re-programming" their acquired behaviours. It is centered around Negative and Positive reinforcement with an emphasis on punishment for "negative" behaviours. The idea is to take a person's old behavioural patterns and replace them with new behavioural patterns.

Relating the Four Pillars of Education and the Models of Teaching

It has been clearly mentioned in the Delores Commission Report that The Four Pillars of Education cannot be defined separately and that they form an integrated whole, complementing and strengthening each other. However, it needs to be remembered that each of these four pillars have significance in itself depending on the specific task or skill that a teacher tries to impart at a particular time.

A teacher, after determining the objective of his teaching may select the model of teaching which is appropriate for a particular session/concept/curriculum. This paper tries to highlight the relationship between each of the four pillars and the models of teaching which may be considered by teachers to help their students in and outside the classroom.

Learning to Know and the Information Processing Models

'Learning to know' includes the development of the faculties of memory, imagination, reasoning, problem-solving, and the ability to think in a coherent and critical way. It is 'a process of discovery', which takes time and involves going more deeply into the information/knowledge delivered through subject teaching. This objective of helping students to know can be achieved by using the Information processing models which is designed to help people handle stimuli from the environment, organize data, sense problem, generate concepts and solution to problems and use verbal and nonverbal symbols.

Learning to Do and the Behaviour Modification Models

Learning to do simply means the application of what learners have learned or known into practices; it is closely linked to vocational-technical education and work skills training. Learning to do thus implies a shift from skill to competence, or a mix of higher-order skills specific to each individual. This pillar of education focusses mainly on education which will bring about change in external behaviour of an individual. Teachers having this objective in mind can use the Behaviour modification models which stress mainly on changing the external behaviour of the learners and describing them in terms of visible behaviour rather than underlying behaviour.

Learning to Live Together and the Social Interaction Models

Specifically, the Learning to Live Together pillar of education implies the development of such qualities as: knowledge and understanding of self and others; appreciation of the diversity of the human race and an awareness of the similarities between, and the interdependence of, all humans; empathy and cooperative social behavior in caring and sharing; respect of other people and their cultures and value systems; capability of encountering others and resolving conflicts through dialogue; and competency in working towards common objectives. These qualities, as envisaged by the Delores Commission could be achieved by using the Social Interaction Model which is based on a conception of society in which people differ in their views and priorities and in which social values legitimately conflict with one another. As this model emphasised the objective of resolving complex controversial issues within the context of productive social order which requires a citizen who can talk to one another successfully negotiating their difference, students can be helped to learn to live together by employing this model.

Learning to Be and the Personal Models

‘Learning to Be’ was based on the principle that *the aim of development is the complete fulfillment of man, in all the richness of his personality, the complexity of his forms of expression and his various commitments – as individual, member of a family and of a community, citizen and producer, inventor of techniques and creative dreamer.* **Learning to be** therefore mean learning to be human, through acquisition of knowledge, skills and values conducive to personality development in its intellectual, moral, cultural and physical dimensions.

This Pillar of Education is closely related to the Personal Models which keep in focus the individuals and his needs and the individual is provided with a stimulating environment in which he can feel comfortable to the maximum for the welfare of the society. These models attempt to adopt teaching to the characteristics of the individual in order to increase his personal flexibility and his stability and his ability to relate to others productively.

In conclusion, let all of us be reminded that education has been, and will always be the most powerful instrument of change and development of an individual, a society, a nation and humankind. It is our responsibility as teachers, as teacher educators and even as parents to know that everyone deserve the best kind of education so that he will be able to Learn to Know, Learn to Do, Learn to Be and Learn to Live Together. Let us be the kind of teacher who will leave no stones unturned to draw out the best in our students, and make the world a better place to live in.

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Attitude Towards Introduction of Sex Education at the School Level Among IASE Teacher Trainees

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Abstract

Sex education is understood as all educational measures which, in any way, help young people prepare to meet the problems of life that have their centre in the sex instinct and incidentally come in some form into the sex of every normal human being. The plan of the study is to find out the attitude towards sex education among the teacher trainees in the Institute of Advanced Study in Education, Aizawl. 'Attitude towards sex education scale' prepared by Dr. Usha Mishra (2008) was employed to collect data. The sample of the study consists of 84 with 42 males and 42 Females. Findings showed that female teacher trainees possess a higher attitude towards sex education as compared to the male teacher trainees; that there are no significant difference in the attitude of rural and urban teacher trainees towards sex education; that post graduate teacher trainees had a more positive attitude towards sex education than the under-graduate teacher trainees. Some suggestions are also incorporated.

Introduction

Every nation, society and community has to work towards promoting the health of its people. When children acquire knowledge, desirable attitudes, values and life skills, they benefit in a variety of ways. These skills help children and adolescents to make informed decisions, solve problems, think critically and creatively, communicate effectively, build healthy relationships, empathise with others and cope with and manage their lives in a healthy and productive manner. Such knowledge and skills can lead to behaviours that prevent disease and injury, foster healthy relationships and enable young people to play leadership roles.

Sex is a universal phenomenon that is present in all organisms. In essence, the word 'Sex' means being male or female, differences in body structure between the two and a strong basic human drive with its emotion of love and tenderness. It is an

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instinct and inborn potential which gets maturity in environmental contact. It deals with the attraction between the male and the female which initiates human beings to the sex act. Sex is an expression, secret expression of man's deepest desire to communicate both spiritually and emotionally, mentally and physically with his partner in order to complete or fulfil his personality.

Sex education is instruction on issues relating to human sexuality, including human sexual anatomy, sexual reproduction, sexual activity, reproductive health, emotional relations, reproductive rights and responsibilities, abstinence, and birth control. Sex education is also understood as all educational measures which, in any way, help young people prepare to meet the problems of life that have their centre in the sex instinct and incidentally come in some form into the sex of every normal human being.

Sex education is emerging as an important branch of general education in our country. Sex education is a controversial issue in the Indian society where sex and its related topics are still taboo subjects. Sex education is an awareness to understand the sex problems scientifically. It conveys all educational measures, which help the growing children to understand and face the problems of life. At the time of puberty, physical changes and emergence of sexual feelings cause a lot of problem among adolescents. Sex education in this context plays an important role and parents have to be acquainted with this.

In India, like other developed and developing countries, teenagers are becoming sexually active at an early age. This can be because of the early entering of puberty and they face many challenges and opportunities. The atmosphere in which the present day child grows has changed radically and is very different from that of their parents and grandparents. Sexual matters are projected everywhere through different mass media like cinema, magazines, newspapers, radio, mobile phones and advertisements etc.

Need and Importance of the study

The need of Sex Education in the educational process is unquestionable. Sex Education is the inculcation of the correct moral attitudes towards sex. It means all the educational measures, which prepare young people to meet the problems of life centred around the sex instinct. The importance of sex education as a means of developing healthy attitudes can be proved on various accounts. Many educationists agree that school is the best place to administer formal sex education to children. Since children start asking questions about sexual matters even while they are only three years old, it is desirable that their questions should be properly answered right from that age. Freud pointed out that more freedom should be given to children in the

expression of biological urges. Children should be allowed to grow at their own pace with passing interest in various stages which are temporary such as anal stage, the genital stage or the phallic stage, where their interest in the sex organs is more prominent.

Sex education also known as sexuality education and Adolescence Education has made a debatable issue throughout India. The policy maker have thrown out the programme from the educational institution, and on the other side journalists and the other people who want to introduce sex education in schools highlighted the importance of sex education through different media.

Sex education is needed for freedom from sexual dysfunctions and organic disorders, to create awareness about sexual-social issues like gender discrimination, child marriage, dowry, prostitution etc. It is found that suppression of sex is one of the most important causes for later life mental disorders. Children keep things hushed up and silently attempt to find truths about sex and are likely to knock wrong doors, which lead to gather wrong and dangerous information.

Research has shown that over 90% of children obtain information on sex from immature friends, pornographic literature, films, television and videos and less than 10% from parents and teachers (Bhonsle, 2004). Studies on sex education in schools also show that it actually encourages children to delay their sexual activity and to practice safer sex once they are active.

Considering some of the developed countries of the world, it can be seen that inclusion of Sex Education in the school syllabus is very essential. Most of the developed countries like Japan, Germany, Finland, Netherland, Sweden, USA and United Kingdom etc. include this subject in their syllabus for more than 30 years. Knowing the importance and need of sex education among children, Adolescence Education Programme [AEP] was launched by the Ministry of Human Resource and Development [MHRD in collaboration with National AIDS Control Organization [NACO], Government of India in 2005 as a follow up of the decisions taken in an Inter- Ministerial Meeting held in October 2004. But the project has run into rough weather in a country where the word 'Sex' is still largely taboo. Nevertheless, a few years back, six states i.e. Maharastra, Gujarat, Rajasthan, Madhya Pradesh, Chhattisgarh, Karnataka have thrown out the program, after noisy protests by lawmakers who say it will corrupt young minds.

As there is no consensus regarding introduction of sex education in school and college syllabus in India, it would be very interesting to find out the attitude of teachers in Mizoram towards this programme. Therefore, the present study has been taken up by the investigator so as to find out the attitude of teachers towards sex education in Mizoram.

Objectives of the study:

1. To study the attitude of B.Ed teacher trainees towards sex education.
2. To compare the attitude of B.Ed teacher trainees towards sex education with reference to gender
3. To compare the attitude of B.Ed teacher trainees towards sex education with reference to their locale.
4. To compare the attitude of B.Ed teacher trainees towards sex with reference to their level of education.

Hypotheses of the study:

There are no significant differences in the attitude of B.Ed teacher trainees towards sex education at the school level with reference to their gender, locale and educational qualification.

Sample:

Since teachers from all over Mizoram come together for training in the Institute of Advanced Study in Education, Aizawl, the sample for the present study is taken from B.Ed trainees studying at the IASE, Aizawl. The total sample consists of 84 B.Ed teacher trainees (42 male and 42 female).

Tools for data collection.

Attitude Scale towards Sex Education developed and standardized by Dr.Usha Mishra was used for collecting data. The scale consists of 32 statements in which 16 statements were positive and another 16 statements were negative. Each statement has five options viz. Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD). The weightages assigned to the different degree of agreement/ disagreement with positive and negative statements were 5,4,3,2,1 and 1.2.3.4.5 respectively.

Analysis and interpretation of the study:

Analysis and interpretation is done in accordance with the objectives of the study as follows:

Objective 1: *To study the attitude of B.Ed teacher trainees towards sex education.*

In order to find out the attitude of B.Ed trainees toward sex education, the scores obtained from the attitude scale are analysed and interpreted in accordance with the

norms provided in the manual of the attitude scale and the findings are presented in the following table – 1

Table – 1
Attitude of B.Ed trainees toward sex education

Respondents	Very High Attitude	High Attitude	Moderate Attitude
All teacher respondents	17.85%	77.38%	4.76%

Analysis of the above Table I shows that majority (77.38%) of all teacher respondents have high attitude towards sex education, 17.85% have very high attitude, and only 4.76% teachers have moderate attitude towards sex education. There are no teachers who have low or very low attitude towards sex education. This shows that teachers in Mizoram wanted to introduce sex education in the schools of Mizoram.

Discussion: Since it is mostly the teachers who takes responsibility in imparting sex education in Mizoram, teachers at the secondary schools are mostly well informed about the true characteristics of sex education and its importance for the adolescent students. They seem to know that sex education would prevent unwanted pregnancies, enhance healthy relationship between opposite sex, and prevent transmission of HIV infections and STDs. Most teachers recognize that it is essential to educate the students on the basic processes of human reproduction, therefore it is not without a reason that the study found that most teachers have high attitude toward sex education.

Objective 2: *To compare the attitude of B.Ed trainees towards sex education with reference to gender.*

The difference in the attitude towards sex education between male and female teacher trainees was compared. For this, the mean and standard deviation of the two scores were calculated. The mean differences were tested by applying ‘t’ test and the details are presented in the following table no. 2

Table – 2
Difference in the attitude towards sex education between male and female teacher trainees.

Group	Number	Mean	SD	t-value	Significant level
Male teachers	42	109.97	14.8	1.99	0.05
Female teachers	42	115.33	9.25		

Table – 2 shows that significant difference is found between male and female teacher trainees at .05 level. Female teacher trainees have a higher mean score than the

male trainees indicating that female teacher trainees have a more favourable attitude towards sex education than the male teacher trainees. Therefore the hypothesis that says ‘There are no significant differences in the attitude of B.Ed teacher trainees towards sex education at the school level with reference to their gender’ is rejected

Discussion: Mizo society is a patriarchal society where men play a dominant role. In the early times young males were taught different life skills in the bachelor’s dormitory by older men, while females were not allowed to enter the dormitory. The Mizo males by tradition were expected to take the initiatives in courting the females; it is the men who should woo the females. Men were freer to discuss about sex while females were expected to remain ignorant. Even in the present day, Mizo females are less empowered in matters related to sex. Females are not expected to discuss sex related topics freely and are often encouraged to suppress their sexuality and sexual needs. As a result, there is little chance for them to have knowledge about sex and its related topics, therefore, perhaps females have a greater desire to learn more about sex and its related issue. Consequently, this could be one of the reasons why the female teacher trainees’ attitude towards sex education is higher as compared to their male counterparts.

Objective 3: *To compare the attitude of B.Ed trainees towards sex education with reference to their locale.*

The difference in the attitude towards sex education by Urban teacher trainees and Rural teacher trainees were compared. For this, the mean and standard deviation of the two scores were calculated. The mean differences were tested by applying ‘t’ test and the details are presented in the following table no. 3

Table – 3
Difference in the attitude towards sex education between Urban and rural teacher trainees.

Group	Number	Mean	SD	t-value	Significant value
Urban teachers	54	112.83	9.66	0.26	NS
Rural teachers	32	112.31	8.4		

Table -3 prove that no significant difference is found in the attitude towards sex education between urban teacher trainees and rural teacher trainees. Therefore the hypothesis that says ‘There are no significant differences in the attitude of B.Ed teacher trainees towards sex education at the school level with reference to their locality’ is accepted.

Discussion: Due to the advancement in information technology, development of transportation system, access to information and materials, the lifestyles and the attitudes of the urban and rural areas are becoming more and more identical. The internet provides not just information and entertainments, but also constant and instant communication especially through social networking and sites such as whatsapp and facebook. Therefore, the attitudes of the rural and urban areas are slowly inclined to come to an agreement. This could be the reason why the present study found no significant differences in the attitude of rural and urban teacher trainees towards sex education.

Objective 4: *To compare the attitude of B.Ed trainees towards sex education with reference to their educational qualifications.*

B.Ed teacher trainees were divided into two groups according to their educational qualification viz Post graduate and undergraduate teachers. The difference in the attitude towards sex education was compared between these two groups. For this, the mean and standard deviation of the two scores were calculated. The mean differences were tested by applying ‘t’ test and the details are presented in the following table no. 4

Table – 4
Difference in the attitude towards sex education between post graduate teacher trainees and undergraduate teacher trainees

Group	N	Mean	SD	t-value	Significant level
Post Graduate teachers	54	114.5	9.77	2.61	0.05
Under- Graduate teachers	30	109.33	8.05		

Table – 4 demonstrate that significant difference is found between post graduate teacher trainees and under graduate teacher trainees at .05 level. Post graduate teacher trainees are found to possess higher mean score which means that they have a more favourable attitude towards sex education than the under graduate teacher trainees. Therefore the hypothesis that says ‘There are no significant differences in the attitude of B.Ed teacher trainees towards sex education at the school level with reference to their educational qualification’ is rejected.

Discussion: Quality and in dept education is an important part of human life. Being educated includes a demonstrated ability to listen carefully, to think critically, to evaluate facts rigorously, to reason analytically, to imagine creatively, to articulate interesting questions, to explore alternative viewpoints, to maintain intellectual curiosity and to

speak and write persuasively. Why post-graduate teachers have a more favourable attitude towards sex education could be that these teacher trainees, because of their higher qualification definitely read more and therefore are able to think critically and evaluate facts rigorously. Perhaps they evaluate about the pros and cons of sex education and came up with a positive attitude towards sex education.

Recommendations:

- i) In view of the positive attitude of the overall B.Ed trainees towards sex education at the school level, it is recommended that sex education should be introduced at the school level especially at the high school and higher secondary level. However, before doing so it may be advisable to study the attitude of parents and community members.
- ii) It is also recommended that before introducing sex education in schools, syllabus should be carefully designed by academicians and expert in this field.
- iii) There is also a need to sensitize teachers, parents and community about the importance of sex education for children; therefore, it is recommended that more seminars, workshop and conferences etc. may be organized.
- iv) Finally, counselling centres should be established in each school and the counsellors should educate students on population and reproductive health issues.

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MLLs as the Valid Minimum Standard or Norms of References for Learning Outcome Based Education in Indian Elementary School Context

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Learning Outcome Based Education (OBE)

It seems that the term OBE in India is not a new concept but the same concept as that of MLL system that have been developed since 1978. OBE is a recurring education reform model which is a popular term in the United States during the 1980s and 1990s (Mohanty, 2002, p.78). It is also called ‘mastery education’ or ‘performance-based education’ and other names. It has also been adopted in significant ways in Australia, South Africa, Hong Kong and other countries other than USA. It is typically based on a student-centred learning philosophy that focuses on empirically measuring students’ performance, which are called ‘outcomes’. OBE Model rejects traditional learning which focuses on what the school provides to students. Instead, it favours making students demonstrate what ‘They know and are able to do’. It greatly emphasizes setting of clear standards for observable and measureable outcomes.

The greatest advantage of OBE concept is that the student’s performance is related in absolute terms: “Student can run 50 meters in less than one minute” instead of “Student enjoys physical education class”. In contrast to a content and time-based method, OBE specifies the “outcomes” students should be able to demonstrate upon leaving the system. These outcomes are derived from a community vision of the skills and knowledge students need to be effective adults. OBE focuses educational practice on ensuring that students master those outcomes or skills, and it asserts that all students can succeed (Mohanty, 2002, p.81).

Learning outcomes are statements of what a learner is expected to know, understand and/or be able to demonstrate at the end of a period of learning. As a matter of fact, learning outcomes can be loosely traced to the work of Ivan Pavlov (1849-1936 and then the work of the American ‘behavioural school’ of psychological thought developed by J.B.Watson (1875-1958 and B.F Skinner (1904-1990).

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Behaviourism emphasised the clear identification and measurement of learning and the need to produce observable and measureable outcomes. Subsequently, the 'learning outcome approach' was refined by educational practitioners in Australia, New Zealand, South Africa and the U.K and more recently by Denmark, Sweden, Ireland and other parts of Europe (NCERT, 2006, p.3). The standards-based National Education Goals (Goals 2000) were set by the U.S. Congress in the 1990s. Many of these goals were based on the principles of outcomes-based education, and not all of the goals were attained by the year 2000 as was intended. The movement resulted in the No Child Left Behind Act of 2001, which as of 2009 is still an active nation-wide mandate in the United States (Mohanty, 2004, p.407).

NPE, 1986 and quality assurance in education

Recognizing the urgent needs for providing quality education and to rectify the anomalous situation, the NPE 1986 calls for paying immediate attention to (i) improving the unattractive school environment, the unsatisfactory condition of buildings and inadequacy of instructional material; and (ii) laying down minimum levels of learning that all children completing different stages of education should achieve. In this regard, the policies includes the following statements (NUEPA, 2008).

- (i) "To promote equality, it will be necessary to provide for equal opportunity to all not only in access, but also in the conditions for success." (MLL, Para 3.6).
- (ii) "Minimum Levels of Learning will be laid down for each stage of education" (MLL, Para 3.7).

Comparable standard set at the minimum level for quality assurance as the requisite condition for success

The NPE observes that quality education with comparable standard set at the minimum level is the requisite condition for success. The issue of quality education with comparable standard also entailed automatically the creation of reliable evaluation system to ensure the achievement at least of the prescribed levels of learning. In this respect, the NPE 1986 also laid down that Continuous and Comprehensive Evaluation (CCE) system shall be followed with an incorporation of both scholastic and non-scholastic aspects of education, spread over the total span of instructional time (NPE, Para 8.24) (MHRD, 1992, p.6-7). The scholastic aspects of education are concerned with learning at the cognitive level whereas non-scholastic aspects include all learning outcomes in behavioural terms. The CCE devise is to evaluate the progress of a child both in cognitive and non-cognitive areas. The MLL gives the objective of teaching-learning processes in behavioural terms whereas CCE is to measure how far progresses have been achieved by every individual both in cognitive and non-cognitive aspects.

Therefore, it can be apparently observed that MLL and CCE approach are just like the two sides of the same coin since they are closely interdependent.

MLL as a Comparable standard set at the minimum level for quality assurance.

Minimum Levels of Learning (MLL) may, perhaps, be defined in a variety of ways. For example, one may define MLL as expected learning outcomes in term of observable terminal behaviour. Other may also define it on the basis of a taxonomic analysis of learning objectives such as knowledge, comprehension, application, analysis, synthesis, evaluation and so on. One can also state the MLL in terms of learning competencies expected to be mastered by every child by the end of a particular class or stage of education. These different approaches for stating the MLL are not mutually exclusive: Of the various alternatives available, the Committee which was constituted by the MHRD on 5.1.1990 has chosen to state the MLL in terms of terminal competencies (NCERT, 1991, p.5).

The concept of Minimum Levels of Learning (MLL) comprises three sub-concepts, i.e. learning, level and minimum. Learning has been defined as a change in behaviour. Thus, behavioural changes are indicators of learning outcomes. The specific terms relating to behavioural changes, such as recall, recognize, infer, predict, analyze as differentiated from global terms, such as know, understand, apply etc. are the concrete, observable, measureable and quantifiable examples of such indicators. The term 'level' refers to a standard with reference to which achievement or performance of a learner can be compared, judged and evaluated. The term 'minimum' refers to the levels of learning that have to be acquired by almost all children whatever be their ability and background without ignoring optimal or higher level of learning by some capable children.

Formulation of MLL by NCERT

In fact, significant efforts to formulate the minimum levels of learning had already been made at the NCERT way back in 1978 as a part of UNICEF-assisted projects on 'Primary Education Curriculum Renewal' and 'Developmental Activities in Community Education and Participation. As part of these projects, a 'Minimum Learning Continuum' was prepared and drawn indicating the learning outcomes expected to be achieved by all children completing classes II, III, IV and V. The Primary Education Curriculum Renewal Project was evaluated in 1984 using a set of achievement tests developed for all the primary classes based on the competencies specified in the Minimum Learning Continuum. Later, utilizing the empirical evidences collected through this evaluation study and following the NPE, 1986, the NCERT

prepared another document entitled, 'Minimum Levels of Learning at the Primary Stage'. Later, the Department of Education, MHRD organized a seminar in December, 1989 on the theme, 'Basic Learning Needs and Levels of Attainment' and this seminar recommended for initiating concrete efforts at the national level to formulate and laying down minimum levels of learning. Consequently, the Department of Education, Ministry of Human Resource Development, Government of India set up the Committee vide Order No.74/3/89-Desk(TE) dated 5th January 1990 and Dr R.H.Dave, Director (Rtd.), Unesco Institute for Education was appointed as the Chairman. The terms of reference of the Committee were as under (NCERT, 1991, p.2).

- i). Draw up minimum levels of learning for Classes III and V.
- ii). Recommend a procedure for comprehensive learner evaluation and assessment.
- iii). Look into the non-cognitive areas of learning and suggest concrete ways in which teaching in these areas can be improved.

Although the term of references included drawing up minimum levels of learning only for Class III to V, the Committee found it more feasible to carry out the exercise for all the Classes at the primary stage of Class I to Class V. After a series of workshops and meetings involving teachers, Non-formal Education Instructors, eminent educationists and the SCERTs, etc., the Committee finalized its report in August 1990 which was published by the NCERT with the approval of MHRD in January, 1991 under the titled "Minimum Levels of Learning at Primary Stage". The publication also includes a separate chapter of Action Plan for implementation of the MLL throughout the country.

Functions and Importance of MLL

MLL strategies pave the way for quality enhancement in the teaching-learning process. It gives us well-defined expected levels of learning outcomes which introduce a sense of direction and a greater element of accountability in the system. In fact, it is not possible to direct the process of teaching-learning activities meaningfully in the absence of a clearly defined set of criteria for measuring student performance and accountability in the system. In other words, it is essentially necessary to set up measures for judging the quality of our schools on the basis of what the students are actually learning at the end of each class or stage. At this juncture, the MLL actually represent the rational criteria adopted for judging the quality of education in term of the expected learning outcomes.

By nature, children learn everything lively. Hence, learning at the basic stage must be made lively. Conventional and traditional learning which greatly depend

upon textbooks information is very difficult to make it lively. As a matter of fact, it kills the very nature of lively learning of children and suppresses curiosity, originality, spontaneity and interest. At this circumstance, MLL approach paves the way for creating teaching- learning processes lively since it focuses on learning outcomes rather than textbook knowledge.

In the processes of learning, the evaluation method or system really determines the way we deliver teaching and the way the learner prepares by themselves. In other words, it really determines the whole processes of teaching learning in schools. If our evaluation method focuses into cognitive areas only, teachers and learners would also confine themselves within such aspects. On the other hand, if our evaluation is focussed on behavioural changes in cognitive and non-cognitive areas, the teaching learning processes would also emphasize all those aspects naturally. Hence, MLL approach is inevitably essential in teaching learning situation to bring about quality education in terms of measurable terminal behavioural changes or learning outcomes. It is a student-centred learning philosophy that focuses on empirically measuring student performances, which are called learning competencies or outcomes.

The needs and importance of MLL stems principally from the following three concerns as mentioned in NCERT, 1991, p.6 :

- (i) Firstly, in every human activity, sense of direction and accountability are the essential conditions for success. We cannot expect much progress without direction and accountability. The teacher may lose sight of the actual goals of learning and thereby focusing merely on regular attendance and the completion of the syllabus in time. The pupils also are likely to lose a sense of purpose and motivation in their studies. Hence, laying down well-defined standards of learning is indispensable to introduce a sense of direction and a greater element of accountability in our educational system.
- (ii) Secondly, quality is often depicted in terms of the input rather than the output. However, in the real sense, the quality of a school or education system is viewed on its students and graduates in terms of their competency skills. This implies that the quality of a school, in the practical sense, is determined by not the input, but by the output quality. In fact, the input process is mainly for the purpose of increasing the output quality in terms of pupil achievements. In order to measure the quality of a school or education system, it is necessary to first define our measure of output in the form of expected standard of achievement in the practical sense. Thus, MLL which is the minimum set of expected standard of achievement in terms of competency skills is a practical solution to the problem of quality concern.

- (iii) Thirdly, primary stage of education is the stage where the highest number of pupils gets enrolled and a large number of them may likely be unable to get the opportunity of education beyond the primary stage. This indicates that what the pupils have learnt at this stage must sustain throughout their lives. As such, it becomes imperative that the educational system makes sure that these precious school years of the children are not wasted. Hence, all children irrespective of their family, community, school conditions, etc., must attain at least a minimum standard of primary education that would eventually enable them to understand their world and prepare them to function in it as permanently literate, socially useful and contributing adults. Hence, MLL is the necessary tool to make sure that the primary school provides useful and worthwhile learning to its pupils.

Rationale of the OBE

Since Jomtien declaration on Education for All, 1990, there is worldwide recognition of the importance of measuring learning outcomes. UNESCO and its partners were mandated to carry out a 10-year assessment of the Jomtien goals so as to present in the World Forum on Education for All (EFA) held in Dakar, in April, 2000. This exercise was known as EFA 2000 Assessment which provided a unique opportunity for a worldwide attempt to measure improvement in learning outcomes. The results from these surveys were then used to establish one of the six goals of the Dakar Framework of Action, namely EFA. As a matter of fact, the Goal No 6 was a re-affirmation of the vision, set out in a decade ago in Jomtien, which states: ***“Improve every aspect of the quality of education, and ensuring their excellence so that recognized and measureable learning outcomes are achieved by all especially in literacy, numeracy and essential life skills”*** (Chinapah, 2003,pp.9-10). Besides providing equality of educational opportunities in terms of access, systems for measuring learning outcomes were strongly proposed to assist informed educational policy-making.

The universal completion of primary school has always been only a mean to the actual goal of universal education: that every youth should make the transition to adulthood equipped with the minimal set of competencies - including both cognitive and non-cognitive skills- need to function adequately in the economic, social, and political spheres of a modern society. The recent World Development Report 2007: Development and the Next Generation builds on this notion of childhood and youth as a time to prepare for transition and the critical role of schooling as not about rote recitation or mastering facts, but improving the skills of young people for work and life - making education opportunities more relevant to the needs of young people as

future workers, parents and citizens. The underlying rationale for schooling goals has always been broad learning goals. Educationists typically had in mind a set of minimally adequate knowledge, skills, attitudes, values, behaviours which can be broadly called “competencies”, to be acquired through schooling. All these recent development and trends at the international level in the delivery of primary education has, in fact, greatly influenced different countries of the world including India.

The rationale in developing relevant systems for measuring learning outcomes is therefore not only to measure what is actually being learned, but also how well the education system is working. In fact, measuring learning outcomes is an integral part of the educational process. It is significantly important and crucial for monitoring the implementation of educational programmes and performances.

The Article 4 of the declaration made by WCEA, 1990 says:

“Whether or not expanded educational opportunities will translate into meaningful development - for an individual or for society - depends ultimately on whether people actually learn as a result of those opportunities, i.e., whether they incorporate useful knowledge, reasoning ability, skills and values. The focus of basic education must, therefore be on actual learning acquisition and outcome, rather than exclusively upon enrolment, continued participation in organized programmes and completion of certification requirements. Active and participatory approaches are particularly valuable in assuring learning acquisition and allowing learners to reach their fullest potential. It is, therefore, necessary to define acceptable levels of learning acquisition for educational programmes and to improve and apply systems of assessing learning achievement.” (Chinapah, 2003, p.9). The NPE, 1986 also says: *“To promote equality, it will be necessary to provide for equal opportunity to all not only in access, but also in the conditions for success* (MHRD, 1992, p.6). The condition for success is the concern of quality in education. Art.16 of the Indian Constitution embedded equal opportunity to every citizen and this can be met mainly through quality education provided to every child especially at elementary stage. Not only access to education, but quality education is the birth right to every child. Quality means conformance to requirement (Crossby, 1979). The requirement is the condition for success and only when our education system is conformed with such requirement i.e. condition for success, our education can be termed as quality education.

The State of Mizoram has achieved commendable progress in literacy and has even become the second highest literate State in India, next to the state of Kerala. However, how far our literacy has brought actual learning in term of competencies or learning outcomes is another concern. The United Nations’ Millennium Development

Goals (MDGs) seeks to “ensure that by 2015, children everywhere, boys and girls alike will be able to complete a full course of primary schooling. Progress towards this goal is typically measured by the three targets: the net enrolment ratio in primary education; the proportion of children who complete the primary school cycle; the literacy rate of 15-24 years old. Literacy is defined by UNESCO as the percentages of 15-24 years old that can, with understanding, both read and write a short simple statement on their everyday life (Filmer, 2006, p.3).

Expansion and progress in terms of enrolment, infrastructural and facilities cannot be equated as quality education unless it brings satisfactory products in terms of learning outcomes or competencies. Mizoram education has witnessed immense progress and improvement especially at elementary stage in term of infrastructural facilities as a result of the recently launched SSA programmes (Hnamte, 2008, p.32). However, how far these expansions and progress bring the quality for success is yet another concern which requires immediate attention. Otherwise, expansion in term of access, enrolment, etc. can be resulted in dilution of quality.

Although the concept of MLL holds a very prominent place in the NPE, 1986 and also at the international level, it appears that the authorities, policy makers and administrators in the State level does not recognize the issues as a crucial one to promote the cause of quality education. In other words, it appears that the state government does not give much importance and recognition to the MLL approach to promote quality education at elementary level of education till date. **It is, therefore, inevitable to sensitize all the stakeholders and policy makers towards the essential necessity of learning outcome based education for bringing about the condition for success to every children as envisaged by the NPE, 1986.**

Sooner or later, assessment of our education system in terms of learning outcome shall become the key issues. The Right of Children to Free and Compulsory Education Act, 2009, Chapter.-V(h) (MHRD, 2010) laid down that Continuous and Comprehensive Evaluation (CCE) should be adopted to evaluate child’s understanding of knowledge and his or her ability to apply the same. In this regard, clear cut and precise norms or criteria to establish a set of standard in term of learning outcomes or competencies are the pre-requisites for a meaningful implementation of CCE. Hence, MLL is the valid criterion or norms of references for the effective implementation of CCE in the right spirit.

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Study Habits of High School Students in Aizawl City

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Abstract

The problem most students have that contributes to their poor performance in tests and examination is lack of proper study habit. For an excellent performance, there is need for the student to form good study habit. A student, who wants to study well, needs to choose a suitable place for his studies. Where to study is as important as what to study and how to go about studying. Productive study habits require learners to prepare personal time-table for themselves allocating a certain length of time for a particular subject, depending on how difficult each subject is. The present study found that majority of the students have poor study habits, that female students have better study habits than the male students and that successful students have better study habits than unsuccessful students. Suggestions for improving study habits are also incorporated.

Introduction

It is an unavoidable fact that students who are intellectually capable of excelling in studies do not always do well academically while others with average ability do very well. This situation often leaves many parents, teachers and students with high expectations, disappointed, frustrated and overwhelmed. Since excellence of academic performance is used to judge the maximum potential and capabilities of students, it becomes very important to identify why intellectually capable students do not always do well in their studies. There are many causative factors that can be attributed to this dilemma. One of the major causes of this problem is the lack of proper study habits.

Study habits basically mean the way one studies - the habit that is formed during the school years. Study habits can be good ones, or bad ones. Good study habits include being organized, keeping good notes, reading textbooks, listening in class, and working every day. Bad study habits include skipping class, watching TV

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or playing video games instead of studying. A person who waits until the very last night before an exam and then stays up all night trying to cram the information into his head is an example of someone with bad study habits.

Study habit of every student is one of the most important factors that affect his or her understanding regarding a certain subject. If a student possesses poor study habits, he/she has a greater chance of failing compared to a student who has a good study habit.

Fielden (2004) states that good study habits help the student in critical reflection in skills outcomes such as selecting, analyzing, critiquing, and synthesizing. Students must learn to develop and practice effective study habits. In order to have effective study habits, students must give in effort towards acquiring information and knowledge from a great variety of books and other media, all of which they should learn in a systematic manner with efficient time management skills. Good study habits include many different skills: time management, self-discipline, concentration, memorization, organization, and effort. Desire to succeed is important, too.

Good study habits should be inculcated in the students from a young age by the combined effort of parents and teachers. The keys to better learning and better academic performance in schools are good teachers, good study environment, course of study, parents' cooperation, high quality books and, the most important, the study habits (Robinson, 2000). Danskin and Burnett (1952) found that students getting higher marks had more effective study habits as compared to students who had ineffective study habits and thus lagged behind in studies. Similarly, Crow and Crow (1963) found academically poor achievers to have less effective study habits as compared to academically high achievers.

Rationale of the Study

A thorough scanning of various studies worldwide strongly indicates that excellent academic performance and good study habits are positively connected. This research work is an attempt to study the connection between study habits and academic excellence among High School students studying in private and government schools in Mizoram. This is on account of the fact that academic performance among High School students in Mizoram has generally been found to be poor or mediocre. This study could help in finding the underlying causes of poor performance of students and suggest remedial measures to help students develop good study habits.

Objectives

1. To find out the study habits of secondary school students in Aizawl
2. To compare the study habits of secondary school students in Aizawl with reference to their gender

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3. To compare the study habits of secondary school students in Aizawl with reference to their school management
4. To compare the study habits of secondary school students in Aizawl with reference to their academic achievement.

Hypothesis

1. There is no significant difference in the study habits of high school students in Aizawl with reference to their gender.
2. There is no significant difference in the study habits of high school students in Aizawl with reference to their school management.
3. There is no significant difference in the study habits of high school students in Aizawl with reference to their academic achievement.

Sample of the Study

The sample for the present study consists of 100 male and 107 female students studying in Government and non-Government secondary schools in Aizawl city.

Tools Used

“Study habit inventory” constructed and standardised by Dr.B.V.Patel, Agra Psychological Research Cell, is employed for collection of data.

Analysis and Interpretation

Analysis of the present study is done in accordance with the objectives of the study.

Objective no. 1: To find out the study habits of secondary school students in Aizawl

The sampled students were categorized in accordance with the norms provided in the manual of the scale and are presented in the following table no 1.

Table No. 1
Number and percentage of study habits of all respondents.

No. Of Students	Very good study habits	Good study habits	Satisfactory study habits	Poor study habits	Very poor study habits
207	0 (0%)	6 (2.90%)	40 (19.32%)	85 (41.06%)	76 (36.72%)

The above table no. 1 shows that while there are no students having very good study habits, only 2.90% of students have good study habits. The table also illustrates

that 19.32% of students have satisfactory study habits and majority (41.06%) of secondary school students have poor study habits, quite a large proportion (36.72%) of students also have very poor study habits. To conclude, it is found that high school students in Aizawl generally have poor study habits.

Discussion: Many students do not understand how important education will be later in life, and they do not think they need to work hard to succeed. Besides, many students think they can “multi-task” and study while they listen to the TV, videos, or music; while they chat, play video games etc. Moreover, lots of parents as well as teachers in Mizoram usually do not cultivate reading culture among the students, as a result of which the youth of today develop less concern for studies. Perhaps, these could be the plausible reason why so many high school students in Aizawl have poor study habits.

Objective no. 2: To compare the study habits of secondary school students in Aizawl with reference to their gender.

The following table no. 2 shows the gender comparison of study habits among secondary school students in Aizawl.

Table No. 2
Gender comparison of study habits among secondary school students

Groups	Number	Mean	SD	MD	SEMD	t-value	Sig Level
Male	100	144.39	16.591			1.97	*
Female	107	149.04	17.348	4.647	2.359		

*Significant at .05 level

Table no. 2 illustrate that there is a .05 level significant difference in the study habits of male and female students. The higher mean score of the female students suggests that female students have better study habits than the male students. Therefore, hypothesis no 1 is rejected as difference is found between the two groups.

Discussion: Girls succeed over boys in school mainly because they are more apt to plan ahead, set academic goals, and put effort into achieving those goals. In our society due to cultural factors, females are usually more home bound while males are more bound to spend their time with friends outside the home. Hence females spend more time to study at home giving them opportunity to plan and set academic goals while males spend more of their time to socialize with friends. Therefore, the reason why female students have better study habits than the male students could be accounted to this factor.

Objective no. 3: To compare the study habits of secondary school students in Aizawl with reference to their school managements.

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The following table no. 3 shows management-wise comparison of study habits among secondary school students in Aizawl. The difference in the mean scores of students studying in Government managed schools and students from non government schools were tested by applying 't' test.

Table No. 3
Management-wise comparison of study habits among secondary school students

Groups	Number	Mean	SD	MD	SEMD	t-value	Sig Level
Government	99	147.67	16.195			0.706	NS
Non-Government	108	145.99	17.935	1.676	2.372		

NS=Not Significant

Table no. 3 denotes that there is no significant difference in the study habits of Government and non-government school students. Hence, hypothesis no 2 is accepted as no significant difference in study habits is found between students studying in the two types of school management.

Objective no. 4: To compare the study habits of secondary school students in Aizawl with reference to their academic achievements.

Table no. 4 below exhibits the comparison of study habits of secondary school students with reference to their educational achievement. The students were categorized into two groups based on their educational achievements in their previous term examinations as passed students and failed students.

Table No. 4
Comparison of study habits among secondary school students based on academic achievement

Groups	Number	Mean	SD	MD	SEMD	t-value	Sig Level
Passed students	99	151.7	17.008			4.088	**
Failed students	108	142.3	15.989	9.401	2.3		

** Significant at .01 level

Looking at table no. 4, it can be seen that there is a significant difference in the study habits of students who have passed their exams and students who have failed in their exams. Looking at the mean, one can clearly see that the difference is in favour of the students who have passed their exams. Therefore, this illustrates that students with better academic achievements have superior study habits as compared to unsuccessful students. Consequently hypothesis no 3 is also rejected as difference is observed between these two groups.

Discussion: The study habit is undoubtedly one of the factors that influence academic achievement. Those who have better study skills have more active learning and are more involved in the educational subjects. On the other hand, one can say that those who have better academic achievement will almost always be the ones who have developed good study habits. Therefore, the present finding is not without a reason.

Suggestions for Improving Study Habits of Students

The responsibility for developing good study habits is the equal responsibility of parents, teachers, students, society etc.

Parents

A large majority of parents in Mizoram do not show much concern about the education of their children. They spend most of their time in social, political and work-related activities because of which indispensable aspects of a child's education such as monitoring of study habits, among others, are neglected. Therefore,

1. Parents should undergo proper guidance and counseling to ensure their involvement and support in the over-all development of their children.
2. Parents should set up a systematic and appropriate study time for their children.
3. As far as possible, parents should ensure the provision of facilities like study rooms, books, Internet facilities, etc. which can greatly enrich the learning experience of their children.

Teachers

1. It is the responsibility of the teachers to create a school environment where each student with different intellectual abilities feels accepted and appreciated and encouraged. This will help boost the self-esteem of students and improve their habits of study.
2. While teaching and assigning activities, Teachers should give only meaningful and achievable work taking into consideration the interests, abilities and talents of the students.

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3. Teachers can be a great help in encouraging and developing good study habits and discipline among students since they are in a position to constantly monitor the intellectual development of their students.

Students

1. Students must strive to develop good study habits at home. This involves setting up a daily time of serious study during which materials are studied with full concentration and careful understanding of meaning. During the set study time they should try to keep away from all things that could distract them such as mobile phones, the television, listening to music, day dreaming, using the internet for looking at things besides studies, etc.
2. Students must learn the value of studying independently and must learn to manage their time wisely in a disciplined manner.
3. Social activities and other leisure time activities that could interrupt this set study time must be avoided.
4. Students must learn to set goals and make plans or steps to achieve such goals since goal setting will motivate them to work hard and in a disciplined manner.

Society

1. In the Mizo society, there are many activities and events in the church and local community in which the youth are expected to take an active part. Although participation is voluntary, it is largely accepted as the norm. However, many tend to dedicate a large amount of their time participating in such activities often at the cost of negligence of their study time, which prevents them from drawing out their maximum potentialities. Therefore, parents and the society should take caution to monitor and ensure that a child's participation in activities of the local community is not excessive and does not affect their studies in a negative manner.

Educational Institutions

1. The learning experience of students can be enhanced with good infrastructure facilities like well-equipped libraries, laboratories, Internet facilities, etc.
2. Schools need the help and cooperation of parents, families and the general community to develop good study habits and to improve the academic achievement of students.

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Development of Technical Education in Mizoram: A Study

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Abstract

Technical education is still in its infancy stage in Mizoram and the state is far behind other states of India. As a result, the general public in the state is quite blind not only about its development but its existence itself. In general, students and parents are not aware of the courses available here in Mizoram. The present study was conducted with the objective of tracing the history of development of technical education in Mizoram. Historical and survey methods of research were adopted. Data were collected from various secondary sources such as reports, records, souvenir and reports of Technical Cell of Higher and Technical Education, Government of Mizoram and internet. Primary data such as year of establishment, courses offered, year of commencement of those courses, intake capacity etc. were collected mainly from the institutions concerned while visiting them for this and other purposes.

A big challenge faced by the state is that, being a developing state, it has a long way to go to reach the same level of technical education as other states. The change in social and economic environment demands more skilled-man power in various fields of work. Mizoram is lagging in this arena and therefore, promotion of technical education to meet the austerity is the need of the hour.

Key Words: *Technical education, Technical courses, AICTE, Mizoram State Council for Technical Education (MSCTE).*

Introduction

Technical education is the academic and vocational preparation of students for jobs involving applied science and modern technology. It includes those aspects of the educational process involving the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to

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occupations in various sectors of life. It emphasizes the understanding and practical application of basic principles of science and mathematics, rather than the attainment of proficiency in manual skills that is properly the concern of vocational education.

All India Council for Technical Education (AICTE) defines technical education as, “*Programmes of education, research and training in engineering, technology, architecture, town planning, management, pharmacy and applied arts and crafts and such other programmes or areas as the Central Government may, in consultation with the Council, by notification in the official Gazette, declare*”.

Based on the classification of technical courses mentioned in AICTE Process Approval Handbook 2013-2014, technical courses available in Mizoram are as follow:

1. *Engineering & Technology (Diploma):*

- 1) Diploma in Civil Engineering offered by Mizoram Polytechnic Lunglei (MPL)
- 2) Diploma in Electrical Engineering offered by MPL.
- 3) Diploma in Mechanical Engineering offered by MPL.
- 4) Diploma in Computer Science Engineering offered by MPL and NIELIT.
- 5) Diploma in Electronic & Telecommunication Engineering offered by Women’s Polytechnic Aizawl (WPA) and NIELIT.

2. *Engineering & Technology (Under Graduate):*

- 1) B.Tech (Information Technology) offered by Mizoram University (MZU)
- 2) B.Tech (Electronics and Communication Engineering) offered by MZU and National Institute of Technology (NIT), Mizoram.
- 3) B.Tech (Electrical Engineering) offered by MZU.
- 4) B.Tech (Computer Science Engineering) offered by MZU and NIT.
- 5) B.Tech (Electrical & Electronics Engineering) offered by NIT.
- 6) B.Tech (Civil Engineering) offered by NIT and MZU

3. *Applied Arts & Craft (Diploma):*

- 1) Diploma in Beauty Culture and Cosmetology offered by WPA.
- 2) Diploma in Garment Technology offered by WPA.

4. *Management (Diploma):*

- 1) Diploma in Modern Office Practice offered by WPA.

5. *Management (PG):*

- 1) Master of Business Administration offered by MZU and ICFAI.

6. Pharmacy (UG):

- 1) Bachelor of Pharmacy offered by RIPANS.

7. MCA (PG):

- 1) Master of Computer Application offered by NIELIT.

Objective and Method of Study

The present study was conducted with the objective of tracing the history of development of technical education in Mizoram. Historical and survey methods of research were adopted. Data were collected from various secondary sources such as reports, records, souvenir and reports of Technical Cell of Higher and Technical Education, Government of Mizoram and internet. Primary data such as year of establishment, courses offered, year of commencement of those courses, intake capacity etc. were collected mainly from the institutions concerned while visiting them for this and other purposes.

Development of Technical Education in Mizoram

Technical education in Mizoram is still in its preliminary stage of development. Its history of development could not be traced back very far as no proper record was maintained in the past. Prior to 1989, there was no separate department for technical education; it was under the department of School Education. Before its trifurcation, School Education Department was responsible for all matters related to technical education. It selected candidates with the help of the concerned departments for admission in different technical courses.

Establishment of Mizoram Polytechnic at Lunglei

In the year 1981, the Mizoram Government established the first Technical Institution named Mizoram Polytechnic at Lunglei, offering only one course - diploma in Civil Engineering with an intake capacity of 60 students (Chhuanvela, 2007). The institution by this time was under the management of School Education Department. After 5 years in 1986, Diploma in Electrical Engineering was introduced in Mizoram Polytechnic, with an intake of 30 students and this became the second technical course introduced in Mizoram. During this time, the institution was still under the management of School Education Department. In 1991, Diploma in Mechanical Engineering was started and ten years after, which was in 2001, Diploma in Computer Science Engineering was opened. At present, the institution offers diploma courses in Civil Engineering, Electrical Engineering, Mechanical Engineering and Computer Science Engineering with an intake capacity of 60, 30, 20 and 30 students respectively.

Establishment of MSCTE and Trifurcation of Education Department

Mizoram State Council for Technical Education (MSCTE) was established in 1988 as per the guidelines of All India Council for Technical Education (AICTE) for efficiency and improvement of technical education in the state (Souvenir SPIU). It was in 1989, that Directorate of Higher & Technical Education came into existence when Education Department was trifurcated into three separate directorates. In the year 1993, the meeting of MSCTE recommended the establishment of Technical Cell in Directorate of Higher & Technical Education. As per the direction of AICTE, an administrative unit of Technical Education was set up in 1994 headed by a Joint Director. Since then, the cell has been taking up all matters relating to technical education. It looks after the two Polytechnic Institutes in the state (Souvenir SPIU, Mizoram, 2005)

Establishment of Women's Polytechnic at Aizawl

The second polytechnic, Women's Polytechnic, Aizawl was set up in 1998 particularly for girls and women, in a rented building. It was started with two diploma courses- Diploma in Modern Office Practice and Diploma in Electronic & Telecommunication Engineering. Another two diploma courses in Garment Technology and Beauty Culture & Cosmetology were introduced in 2001. Hence, the courses offered by this institution at present are Diploma in Electronic & Telecommunication Engineering, Modern Office Practice, Garment Technology and Beauty Culture & Cosmetology with an intake capacity of 30, 30, 20 and 20 students respectively.

The World Bank Assisted- Technician Education Project – III

The World Bank Assisted- Technician Education Project – III was signed between the representative of Government of India, Government of Mizoram and the International Development Association (IDA) at World Bank Headquarters in Washington in July 2000. For monitoring the overall implementation of the project and timely achievement of targets, State Project Implementation Unit (SPIU) was established at Aizawl in the year 2001. State Level Empowerment Committee (SLEC), headed by the Chief Secretary was also set-up for expediting activities under the Technician Education -III in the same year. Soon after the establishment of the above, the Third Technician Education Project also called World Bank Project came into effective in Mizoram.

Establishment of Central Government and Private Institutions Offering Technical Courses in Mizoram

In addition to these institutions run by Higher & Technical Education through its Technical Cell, there are few institutions in Mizoram that have been established from

outside the state by private companies and Central Government. These institutions offer technical courses at under graduate and post graduate levels.

- (1) One such institution is Regional Institute of Para Medical and Nursing Sciences (**RIPANS**) which was set up in 1995 for the states of North East India. The Institute caters to the needs of the region in paramedical and nursing courses including Bachelor in Pharmacy course which is considered as technical course by AICTE. B. Pharm course was introduced in RIPANS from 2004 only.
- (2) National Institute of Electronics and Information Technology (**NIELIT**) formerly known as DOEACC that specializes in the fields of Information, Electronics and Communication Technology was set up in 2002. It, along with other courses, offers three technical courses such as Diploma in Electronic & Telecommunication Engineering and Diploma in Computer Science Engineering which were started in 2005 and Master of Computer Application (MCA) which was started in 2008.
- (3) A private university named, The Institute of Chartered Financial Analyst of India University (**ICFAI** University), Mizoram established in 2006 also started offering Master of Business Administration (MBA) from the year 2006 along with other courses.
- (4) Apart from these, **Mizoram University**, a central university established in 2001 has opened avenues for studying courses of technical nature by starting a few academic departments in its campus. In Mizoram University, School of Engineering & Technology was set up in 2007. There are four functioning departments under the school. The first technical course B.Tech (Information Technology) commenced from August, 2007 which was followed by B. Tech (Electronics & Communication Engineering) which was started from August 2008. B. Tech Programme in the other two disciplines i.e. Electrical Engineering and Computer Engineering commenced from August, 2012. Department of Civil Engineering has also been set up and teaching programme in this is likely to commence from the academic session 2015-16. Apart from these, Mizoram University offers Master in Business Administration (MBA) under Department of Management, the course of which comes under the purview of AICTE.
- (5) Furthermore, in addition to the above, National Institute of Technology (**NIT**) was set up in Mizoram in 2010. The Institute started offering three under graduate degree courses of Engineering and Technology namely B.Tech in Electronics & Communication Engineering (ECE), Electrical & Electronics Engineering (EEE) and Computer Science Engineering (CSE) from 2010 and B.Tech in Civil Engineering from 2014. The State Government as per the agreement with the

Central Government, allocated land for the establishment of NIT at Lengpui in 2011. The institution is now functioning in a rented building at Chaltlang, Aizawl.

To facilitate better comprehension of what has been narrated before, the growth of technical institutions in the state and courses offered therein are shown in a tabular form as under:

Growth of Technical Institutions and Courses in Mizoram

Sl. No	Name of the Institution	Year of Establishment	Courses Offered and Year of Commencement			Management
			Sl. No	Courses	Year	
1	Mizoram Polytechnic Lunglei	1981	1	Diploma in Civil Engineering	1981	Mizoram State Government
			2	Diploma in Electric Engineering	1986	
			3	Diploma in Mechanical Engineering	1991	
			4	Diploma in Computer Science Engineering	2001	
2	Women's Polytechnic Aizawl	1998	1	Diploma in Modern Office Practice	1998	Mizoram State Government
			2	Diploma in Electronic & Telecommunication Engineering	1998	
			3	Diploma in Garment Technology	2001	
			4	Diploma in Beauty Culture & Cosmetology	2001	
3	NIELIT	2002	1	Diploma in Electronic & Telecommunication Engineering	2005	Central Government
			2	Diploma in Computer Science Engineering	2005	
			3	Master of Computer Application (MCA)	2008	
4	Mizoram University	2001	1	B.Tech (IT)	2007	Central Government
			2	B.Tech (ECE)	2008	
			3	B.Tech (CSE)	2012	
			4	B.Tech (EE)	2012	
			5	Master of Business Administration (MBA)	2008	
5	NIT, Mizoram	2010	1	B.Tech (ECE)	2010	Central Government
			2	B.Tech (EEE)	2010	
			3	B.Tech (CSE)	2010	
6	ICFAI University Mizoram	2006	1	Master of Business Administration (MBA)	2006	Private
7	RIPANS	1995	1	Bachelor of Pharmacy (B.Pharm)	2004	Central Government

Conclusion

From the brief discussion and table given above, it is evident that with regard to technical education, Mizoram is still in its infancy stage and is far behind other states of India. Since 2009, certain steps have been taken up by the state government to

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establish new polytechnic institutes in all the districts. Lands have been acquired and civil works have been started and are almost complete except in Serchhip district. Education Reforms Commission of Mizoram 2010 suggested expansion of the system of vocational and technical education at the earliest by establishing at least four more Polytechnics in districts other than Aizawl and Lunglei out of which, two Polytechnics may be designed as 'Community Polytechnics'. It is learnt that the state government also has taken some initiatives to start Engineering College in the state.

A big challenge faced by the state is that, being a developing state, it has a long way to go to reach the same level of technical education as other states. The change in social and economic environment demands more skilled-man power in various fields of work. Mizoram is lagging in this arena and therefore, promotion of technical education to meet the austerity is the need of the hour.

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