MEDIUM OF INSTRUCTION AT SCHOOL LEVEL IN MIZORAM: POLICY REVIEW, IMPACT ON ACADEMIC ACHIEVEMENT AND PERCEPTIONS OF STAKEHOLDERS

Thesis submitted in partial fulfilment for the

Degree of Doctor of Philosophy in Education

Submitted By

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Certified that Ms. Ellie Lallianpuii, Assistant Professor of Education Department in Government Champhai College, Mizoram has written her thesis titled **"Medium of Instruction at School Level in Mizoram: Policy Review, Impact on Academic Achievement and Perceptions of Stakeholders"** under my supervision. To the best of my knowledge and belief, the work embodies her original investigations and findings, and has not been published anywhere. I consider it worthy for the Degree of Doctor of Philosophy (Ph.D) in Education of the Mizoram University.

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DECLARATION

I, Ellie Lallianpuii, hereby declare that the subject matter of the thesis entitled **Medium of Instruction at School Level in Mizoram: Policy Review, Impact on Academic Achievement and Perceptions of Stakeholders** is the record of work done by me, that the content of this thesis did not form basis of the award of any previous degree to me or to the best of my knowledge to anybody else; and that the thesis has not been submitted by me for any research degree in any other University/ Institute.

This is being submitted to the Mizoram University for the degree of Doctor of Philosophy in Education.

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CHAPTER – I
CONCEPTUAL FRAMEWORK

CHAPTER-I
CONCEPTUAL FRAMEWORK

"The most important and urgent reform needed in education is to transform it, to endeavour to relate it to the life, needs and aspirations of the people and thereby make it the powerful instrument of social, economic and cultural transformation necessary for the realization of the national goals. For this purpose, education should be developed so as to increase productivity, achieve social and national integration, accelerate the process of modernization and cultivate social, moral and spiritual values."

- Education Commission 1964-66

1.0   INTRODUCTION

Language is a medium through which man examines the past, understands the present and approaches the future. Language undoubtedly, has a vital role in the mental, emotional and social development of a person. Development of language for a child is synonymous with development of understanding and identity, and also the capability of relating with others (NCERT, 2005). It is in fact, the principal medium of learning and acquisition of knowledge, comprehension and expression. The vast body of psycholinguistic research that has emerged in recent years has indicated that language development and cognitive development is intimately related (Ramasamy, 2001). It is unimaginable to think of effective education in the absence of language. The role of language therefore in education cannot be over-emphasised and the medium of instruction provided in education also thus bear an important question on the quality of education. Medium of instruction simply means the language used in teaching and learning.

In a multi-lingual country like India, medium of instruction has become an important element of national integration as issues relating to medium of instructions always have political implications which may be due to the nature of the formations of most of the states i.e., language-based states. There is no other country in the world in which languages from five different language families exist (NCERT, 2005). India is a country with not only countless languages and dialects, but also with people of

different castes, religion, standard of living, food habits and customs. Hence, the problems of languages are not recent phenomena. In fact, the problems itself dates back to centuries and centuries ago when the developed condition of the land attracted the Turk invaders, subsequently the Muslims and the European imperialists. Such intruders have greatly influenced the primitive culture and also contributed much to the evolutions of the linguistic diversity and problems of the present. Every class, group or people of a region have a particular affinity with their language. It is natural for the people to love and wishes for education in their own language. Hence, the question of selection or adoption of medium of instruction for imparting education becomes a very sensitive but significant issue in a country like India.

The first move towards evolving a government sponsored all-India medium of instruction dates back in 1835 in the famous Bentinck-Macaulay minute, where English was accepted as a medium of instruction. In this connection the great orientalist–occidentalist controversy may also be briefly recalled. An influential section of opinion led by people like Sir William Jones and Raja Radhakanta Dev Bahadur strongly favoured education through the classical languages. Whereas the progressives led by Raja Ram Mohan Roy and others, advocated English and western learning. There was yet a third school of opinion that recommended that the mother – tongue or the regional language should be adopted as the medium of instruction (Roy, 1971). Although efforts were made to recognise or establish a policy of vernacular schools thereafter, however English continued to enjoy the most favoured treatment and as the language of the rulers and also the language of administration, it naturally enjoyed priority over the indigenous languages.

The Independence of India led to the necessity of an all India link language in the minds of the policy-makers, and also that of a language for international exchange. The place of English in Indian education however, has grown to such an extent that the desire to use it as a medium of instruction is imbibed in the minds of many people, exerting influences to policy makers as well. Although linguists have not yet been able to find a speech community with a mother tongue which could be described as conceptually or logically primitive, inadequate or deficient (Labov, 1972 as quoted by Kangas, 2007) however, after independence, the Indian government found native languages as unsuitable vehicles of modern knowledge and hence the need to re-impose English on people was felt in order to promote technical education. (Anjali, 2003). This clearly showed that the British colonization was a very effective

one as it colonised the language and gradually the minds of the people to feel their language to be inferior to that of the language of the colonialist. Thereafter, the number of English medium schools and the enrolment of students increased tremendously which became some sort of traditions till date. In consequence, the English titles command the highest number in publications, and the circulations of English newspapers increased. Thus English appeared to stay as a library language or the language for cultural and international contact.

In contrast to the situations in India, most research studies stressed the need of using the mother tongue medium of instructions for improving the quality of education. Research findings revealed that school learning and experiences become a continuation of home experience, creating a condition that guarantees cognitive equilibrium. The world recognized the value of mother tongue only after the publication of the UNESCO monograph on the use of the vernaculars in education in 1953. According to the findings of UNESCO, it is through his mother tongue that every human being first learns to formulate and express his ideas about himself and about the world in which he lives. (Chaklader, 1990 as quoted by Saba, 2013). Gandhi has also opined that, "The foreign medium has caused brain fag, put an undue strain upon the nerves of our children, made them charmers and imitators unfitted them of original and thought, and disabled them for filtrating their learning to the family or the masses". He also added that the foreign medium had made the children practically foreigners in their own land, which was the greatest tragedy of the existing system of education (Ruhela, 2002).

To ensure meaningful education with active participation on the part of the learner, education should be imparted in the child's mother tongue. Naturally, the child knows well his mother tongue and is ready to receive and react to the language in which he is most familiar and comfortable with. The Education Commission 1964-66 declared that, "The medium selected should enable students to acquire knowledge with facility, to express themselves with clarity and to think with precision and vigour" (N.C.E.R.T, 1970). The work of Hakuta (1986) and his colleagues provide clear evidence that a child who acquires basic literacy or numerical concepts in the first language can transfer these concepts and knowledge easily to second or third or other later-acquired languages (Tucker, 1999). The education commissions and various study groups on language have always recognised its importance and recommended the principle of teaching through the mother tongue.

The report of the Working Group on the study of Languages constituted by NCERT in 1986 that the medium of early education should be the mother tongue(s) of the learners. Thereafter, though all policy documents have reiterated this fact, even after 61 years of independence, this is not yet a reality! (Kapur, 2009). On the other hand, the linguistic heterogeneity and the specific social or religious attitudes of India greatly necessitated the use of multiple languages in education. The Three Language Formula (adopted by the government of India in August 1961) was seen by many as a political solution to the language conflict and problems in India. Accommodation of at least three languages within the ten years of schooling seemed to recognised well the linguistic heterogeneity but the promotion of Hindi package which came along with the formula was not welcomed by people mainly from the non-Hindi speaking areas. At the secondary stage, the policy suggested vigorous implementation of the Three Language Formula which includes "the study of a modern Indian language preferably one of the southern languages, apart from English and Hindi in the Northern states, and of Hindi along with regional language and English in the non-Hindi speaking states. Suitable courses in English and Hindi should also be available in universities and colleges". Hindi as mentioned before is one of the most important language in India but many people did not accept it as a link language, hence, English, which occupy an important place in education during and after the British rule, though a foreign language, has been given the status of the Associate Official language of the country.

The choice of language for medium of instruction in education, the perception of the policy makers, the recommendations and guidelines of the educationists and the legal implications of the official guidelines did not seem to be in line with the attitudes and thoughts of the general public. This may be due to the conflict of opinions of the government with that of the people who were intimidated and influenced by the western culture. Mostly, it was the influential number of the middle class families of the country who desired English medium instructions. Consequently, this has led to an incompatibility between the policy and its effective implementation

In order to raise the standard and quality of education, the policy makers need to stand on a firm ground with respect to language choice for medium of instructions. Though education is placed in the concurrent list of the constitution, it is true that the state government plays a very major role and have the final say in most of the policy and actions within its arena particularly in the level of primary and secondary

education. Change in the government is sometimes accompanied by a demand to change the medium of instruction in educational institutions. As the Education Commission 1964-66 suggested formulation of a clear policy and an expression of it in an unambiguous term is the need of the hour (N.C.E.R.T, 1970). The state government should also take the responsibility to follow up the policy with firm, bold and imaginative action.

1.1   BACKGROUND OF THE STUDY: MIZORAM

The present study focuses on the impact as well as certain issues relating to the medium of instructions in Mizoram. Hence, it is imperative to introduce briefly on the background of the study i.e., the state of Mizoram. For easy perusal, the following paragraphs are divided into different sub-heads.

1.1.1   The Land

Formerly, Mizoram was an autonomous Hill District of Assam and known as Lushai Hills District. Its southern part during the time of undivided India was administered by undivided province Bengal and the northern part by the province Assam. The term Lushai was derived from the word Lushei or Lusei the classified name of one major tribe of the Mizo People. The Lushai Hills District changed its name to Mizo Hills District in 29th April, 1954 by an Act of Parliament; became a Union Territory on 21st January, 1972 when the state of Assam was reorganised under the North eastern Area Reorganisation Act of 1971 and was named Mizoram which means the land of the Mizos. Mizoram became the 23rd State of India on 20th February, 1987 (Sen, 1992).

Mizoram is situated between 21°56'N to 24°31'N, latitudes and 92°16'E to 93°26'E longitudes, it covers an area of 21,087 square kilometres, and runs 285 kilometres lengthwise from north to south and 115 kilometres width from east to west which formed almost a trapezoid shape (Pachuau, 2009). It is bounded on the north by Cachar District of Assam and by the state of Manipur, on the east and south by Myanmar, and on the west by Bangladesh and Tripura. Mizoram is isolated from the mainstream of Indian life both by its geographical isolation and its difficult terrain. Steep mountain ranges running in a north-south direction are separated by parallel plunging valleys of rushing rivers (Hluna, 1992). The hills of Mizoram are covered with dense evergreen forest rich in timber, plants, bushes, creepers and grasses. Large

varieties of wild animals as well as varieties of birds are found in the jungles of Mizoram. The temperature during winter is 11° C and 23°C, in summer 25°C to 34°C and in autumn 18°C to 25°C. There are eight districts in Mizoram namely Aizawl, Mamit, Kolasib, Champhai, Serchhip, Lunglei, Lawngtlai and Siaha Districts. Illustrated map of Mizoram is given in the following page with highlighted area under study (Pachuau, 2009).

1.1.2 The People

The Mizos are believed to be descendants of Tibeto-Burmese who in course of time, arrived in the Chin Hills of Burma along with other ethnic tribes as a result of population movements. They are believed to have settled for centuries and formed themselves into homogeneous group of varying clans, thus, settling down at various places, and gradually landed themselves to their present place of habitat i.e. Mizoram (Sangkima, 2004).

Mizoram was an unexplored and almost unknown land to the outside world even after British had occupied other parts of Northeast India. In their secluded life, the Mizos maintained their own culture and traditional belief and practices, language, codes of justice and morality. Before the advent of Christianity, the Mizos were under constant fear of displeasing the evil spirit, with many superstitions which was basically due to their ignorance and lack of understanding of the natural processes. Education which was brought by the Christian missionaries acted as liberating agent from superstitions, ignorance, difficulties and constrain which tended to hamper their development. (Hluna, 1992)

Since then, as a tribe, the Mizos have progressed and undergone what is believed to be a phenomenal change within a span of half a century. From being totally illiterate, they have become the third most literate area in the whole of India with 91.33 percent literacy level according to 2011 census where the national literacy rate is 74.04 percent. As per details from Census 2011, Mizoram has population of 10.97 lakhs, of which male and female are 555,339 and 541,867 respectively (Census Organisation of India, 2011).

Fig. 1.1
Illustrated map of Mizoram with highlighted area (Districts) under study

1.1.3   The Language

The Mizo language has been described as the Assam-Burman branch of the Tibeto-Burmese family of languages. The Mizo sub-tribes could be termed as dialectic groups since each of them had their own dialect. After they crossed the river Tiau (Myanmar), they found a place for permanent settlement where the dialect of the largest and the ruling group i.e. the *Lusei* called *Duhlian* served as the link language of the people and came to be known as *Mizo tawng* /Mizo Language (J.V. Hluna, 1992). In the eighteenth and nineteenth centuries, this dialect had almost absorbed all other dialects excluding few tribes who are confined to a particular area and are a majority in that area. Out of the total population of Mizoram, 72.9% speak Mizo (Duhlian), 7.54% speak Chakma, 3.9% Mara, 2.8% Pawi, 1.61% Paite, 1.6% speak Hmar, 1.9% speak Riang and 1% speak Nepali (Pachuau, 2009). However, almost everyone understands the *Duhlian* dialect.

1.1.4   Traditional Education of the Mizos

Family is perhaps the oldest institution in human society. This holds especially true in the Mizo society. In the absence of scripts and formal education, family became the first institution of learning. However, the indigenous methods of instruction were so systematic in many respect, they were more effective in terms of moulding the life of the people in the society than the methods being applied in the system of formal education. The education the children practiced was more practical as they learnt through actual participation in the works of the elder and parents. The father who exercised a prerogative power in the family with responsibility to procure food for the family also has a responsibility of teaching and handling down the required skills to the family. Meal time was the time for teaching the children civic sense and morality; and distributions of the day's works were also made, which was carried out by the father. The mother also had an important role of teaching the daughters the necessary household works including skills of weaving, cooking, rice hulling, and so on.

Besides the family, *Zawlbuk* might be considered as the best indigenous institutions which served as a male dormitory in the early years. It was a place where youths were shaped into responsible adult member of the society. It provided opportunities for learning co-operation, fellow-feeling, tolerance, etc. Various indigenous games were learnt and played in *Zawlbuk* and for preparation of *Chapchar*

Kut festival, traditional dances were also practiced. It was also a training ground for warfare as well as a place of imparting discipline and good manner where insolvent villages were also disciplined. Like many other social customs, *Zawlbuk* could not stand the force of changes which took place after the coming of the British resulting in its abolition and deterioration (Sangkima, 2004).

1.1.5   Introduction of Formal Education in Mizoram

The first school in Mizoram was a school opened in Aizawl in November 1893. But the school was meant for the children of the *Sepoys* who are serving in Mizoram and Hindi was the medium of instructions. Formal education although had long been embedded in the country even before colonialism, had never find its place in Mizoram for it remained unknown to the rest of the country. Even long after the British rule in India, the Charter Act 1813 and 1854 which made the East India Company accepted the responsibility of educating the Indians and the Wood's despatch for educational improvement did not have any meaning to the Mizos, nor the famous Hunter Commission of 1882 did not concerned the Mizos. Consequent upon this, A. Porteous, the then political officer in 1897, despatch a strong worded note to the authorities which wrote, 'I desire to point out that, although it is now seven years since Aijal (now Aizawl) was occupied, nothing whatever has yet been done by government in the way of commencing to educate the Lushais' (Hluna, 1992).

The introduction of formal education to the Mizos was made by two English missionaries of Arthington Aborigines Mission, Dr. (Rev) J.H. Lorrain and Rev. F.W. Savidge. Prior to the coming of the missionaries, Mizos were without written language and were totally illiterate. Hence, they immediately worked on creating Mizo alphabets based on Roman script based on the Hunterian system. After a stay of only two and half months, they started the first school on 1st April 1894 (Sen, 1992). Their first and only pupils were Suaka and Thangphunga. Mizo parents were not in the least inclined to send their children to school, so the two young missionaries tried to attract them by offering sweets (Lloyd, 1991). Soon the medicine distributed and the kindness shown established mutual confidence and won the sentiments of the Mizos. The two teachers were surprised that their students mastered the new alphabets in a week. The first textbook *Mizo Zir Tirh Bu (A Lushai Primer)* was released on 22 October 1895 and became the first book in Mizo language. According to Lorrain,

"Lushai written vocabulary reached approximately 5000 words by 10th April 1897" (Sen, 1992).

Although Lorrain and Savidge did not remain in the Mizo hills to see much of the fruit of their four years labours, they however laid the foundation of a pioneer work that lasted for generations to come. A Welsh missionary Rev. D.E. Jones from the Calvinistic Methodist Mission then took up the education under government recognition in 1898. He organized classes for about thirty students at the verandah of his residence. He was assisted by Khasi couple Rai Bhajur and his wife. A new government school was opened in Lunglei in 1897, and Bengali script was used for teaching. In 1901 the government honoured Lalluava, the Chief of Khawngbâwk, for his deed towards the British by establishing primary school in his village. By 1903 there were schools in fifteen villages. In 1903 the British administration started promoting education by waiving forced labour (called *kuli*) for those who passed class IV (primary school), in addition to scholarship for meritorious students and grants to existing schools. The first scholarship was given to 8 students with the amount of Rs. 3 each per month for 2 years. The first systematic examination called Lower Primary Exam was conducted on 25th June 1903, with 19 candidates (2 girls among 17 boys), eleven of them passed. Sir Bamfield Fuller, Assam Chief Commissioner, visited Mizoram (then Lushai Hills) in February 1904, and was so impressed with the mission schools that he immediately issued an order for dissolution of all government schools. He also presented Gold Medal to Chhuahkhama (among boys) and Saii (among girls). In 1904 the entire educational administration was charged under the mission, and Rev. Edwind Rowlands became the first Honorary Inspector of Schools from 1st April. The first middle school (was called upper primary) came up in 1906 in Aizawl. The first high school named Mizo High School was opened in February 1944 at Zarkawt. There were 56 students in class VII, under the headmaster Rev David Evan Jones. In 1948, one more high school was established at Lunglei, followed by Gandhi Memorial High school at Champhai in 1950.

By 1941 Census of India, Lushai had attained highest literacy rate (36%) in India. Till the late 1952 the church managed elementary education through Honorary Inspector of schools. On 25th April 1952, Lushai Hills became Mizo District Council under the government of Assam. A post of Deputy Inspector was created by the government. In 1953 the designation of Honorary Inspector was changed to Secretary, Education Management Committee. Under this administration all primary and middle

scholarship examinations were coordinated. In 1953 the first teachers' training institute Basic Training Centre was opened. On 15th August 1958, Pachhunga University College (then Aijal College) was inaugurated to become the first institute of higher education. In 1961 Education Officer became the administrative authority of education in the Mizo District Council. After Mizoram became a union territory (in 1972) a separate Directorate of Education was created in 1973 under a separate ministry. Mizoram Board of School Education was established in 1976. Within a hundred years of education, Mizoram remains amongst the top lists of highest literacy rate in India

1.1.6   Medium of Instructions in the Early Days

In the early days of Mizoram, the medium of instruction in government schools was Bengali, though the Governor-General in Council in 1864 lay down that instruction should be given entirely in English or in the indigenous languages of the hill people expressed in Roman characters. However, Bengali continued as the medium of instruction and even though English was also a part of teaching, the Mizo pupils find it very difficult. By the time the pioneer missionaries, J.H. Lorrain and F.W. Savidge hand over their work to Rev. D.E. Jones of the Welsh Mission and left Aijal in December 1897, the government had taken up the idea of Lushai education and had got up a Bengali school master to learn the language and open a government school in Aizawl.

On the contrary, the pioneer missionaries, who entered the Lushai Hills, found no problem in imparting instructions in the indigenous languages of the hill people in the mission schools. They introduced an alphabet, prepared curriculum in Mizo and imparted instruction in Mizo. In 1903, the Welsh mission brought out some advanced textbooks which include *'Lushai'*, *'Arithmetic Part I & II', 'Christian Hla Bu' (Hymnbook), 'An Advanced Reader' and 'Lushai English Primer'*. And prior to this, the two pioneer missionaries Lorrain and Savidge wrote *'A Grammar and Dictionary of the Lushai Language', 'Zirtanbu' (Lushai Primer) 'Hla bu' (Hymn book), 'Zawhna leh Chhanna Bu'* (Book of question and answer) in 1896. These were used as text books in their schools. Khamliana, the chief of Lungleng was the first Mizo who could be able to read and write in Mizo (Wikipedia, 2016).

In the Curriculum, a prominent place was given to Biblical teaching and other subject of elementary education was considered of secondary importance. At the same

time, textbooks were wholly prepared by the missionaries with an effort to make them good, reliable on the subjects, creating healthy ideas in general subjects, and which would instill and promote patriotism. In order to attract the sons of the Mizo chiefs or their representatives to the mission schools, who would normally be sent to the government schools at Aizawl where Bengali language was taught, the missionaries also introduced English. The Mizos seemed to enjoy English than Bengali and were able to learn English much better. However, Mizo language continued as the medium of instruction.

1.1.7 Medium of Instructions in the Present Day

To cater to the needs of few linguistic minorities in the states, there are five medium of instructions available in the elementary level of schooling in Mizoram such as Bengali medium, Hindi medium, Nepali medium, Mizo medium and English medium of instructions. Among these, the most prominent ones are the Mizo medium and the English medium. Before the early years of 2000, almost all Government schools adopted the Mizo medium of instructions whereas all private schools adopted the English medium of instructions at the elementary level. The present day not only witnessed a mushroom growth of private English medium schools, but also a demand and a pressure of adoption of English medium instructions to Government elementary schools.

1.1.8 Structure of Education

At present, the structure of education in the Mizoram is based on the national pattern with 12 years of schooling (10+2+3), as recommended by Kothari Commission (1964-66); also envisaged by The National Policy on Education (1986). The 10+2+3 pattern consisted of eight years of elementary education, that is, four years of primary and another four years of middle school education for the age groups of 6-11 and 11–14 years, respectively, followed by secondary and higher secondary education of two years each. The higher secondary school leaving certificate enabled students to pursue higher education in college in general academic streams and in technical and professional courses.

1.1.9 **Conversion of Government Mizo Medium Schools to English Medium Schools**

Starting from the year 2002, the government of Mizoram, had been taking continuous steps to convert government Mizo medium schools to English medium schools. This action of the government is resulted mostly because of public pressure as the Mizo had strong attachment towards English which maybe largely due to the fact that Mizo are Christians and the missionaries who started education and bring about development to the Mizo society are English speakers. Realizing the importance of English; and in believing that (as reflected in Mizoram Education Policy, 2013) English as a medium of instruction would enhance the quality of education in the elementary schools, the government of Mizoram continue with the conversion and as a result, between the year 2002 and 2014 i.e., in a span of 12 years, as many as 109 government Mizo medium schools had already been converted into English medium schools. Details of government Mizo medium schools converted into English medium schools are provided in table 1.1

Table 1.1
Details of Govt. Mizo medium Schools converted into English medium schools

Year of Permission	Govt. Primary school	Govt. Middle School
2002	5	7
2004	3	1
2007	7	1
2008	9	4
2009	6	6
2011	5	*
2012	10	8
2013	12	1
2014	14	10
TOTAL	**71**	**38**

is the absence of items.

Lists of primary schools converted into English medium schools and lists of middle schools converted into English medium schools are given in Appendix I and II respectively.

1.1.10 Number of Mizo and English Medium Elementary Schools in Mizoram

Amidst the other medium of instructions existed in Mizoram, the present study is largely based on the two most prominent medium of instructions i.e., Mizo medium and English medium of instructions. An examination of the data collected from Department of School Education, Government of Mizoram on number of schools in Mizo and English medium elementary schools showed a marked decline of number of Mizo medium schools in Mizoram as presented with the help of table and graph. The given figure 1.2 and table 1.2, showed that:

In the year 2011 – 2012, 61% of elementary schools in Mizoram were Mizo medium. While there were 39% of English medium elementary schools.

Again, in 2012 – 2013, 61% of elementary schools in Mizoram were Mizo medium. While there were 39% of English medium elementary schools.

During the year 2013 – 2014, there were 60% of Mizo medium elementary schools whereas, 40% were English medium.

In 2014 – 2015, 58% of elementary schools were Mizo medium while 42% were English medium.

The year 2015 – 2016 showed a drastic decrease of number of Mizo medium elementary school as there were only 55% while the number of English medium increased to 45%.

To conclude, due to the absence of English medium school in many remote rural areas, the number of Mizo medium school is still higher than the English medium elementary school in Mizoram. However, the trend given in the table, table 1.2 indicated that the number of English medium school is increasing while the number of Mizo medium school declined.

Figure 1.2

Number of Mizo and English medium elementary schools in Mizoram during the year 2011 – 2015
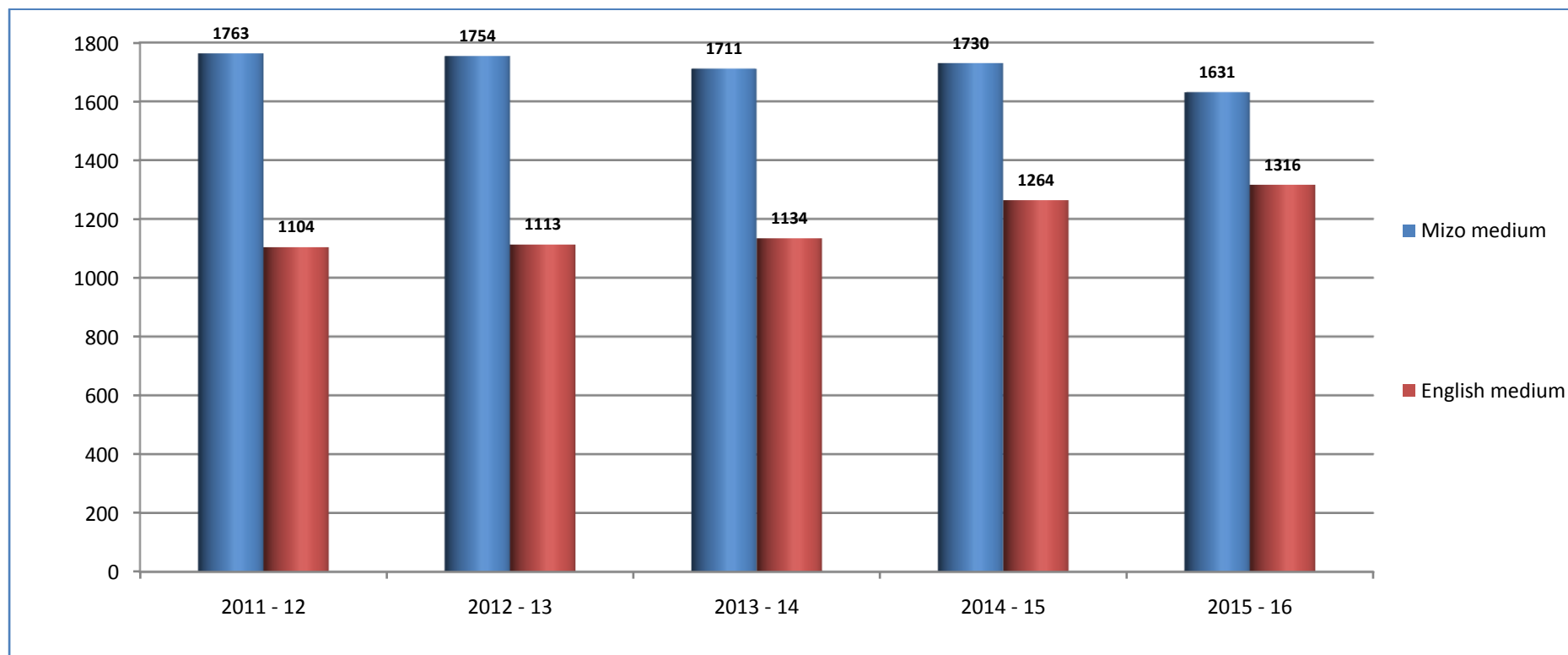
Table 1.2

District-wise Percentage and Number of Mizo and English medium schools during the year 2011 – 2015

District	2011 – 2012		2012 – 2013		2013 – 2014		2014 - 2015		2015 – 2016	
	Mizo medium	English medium	Mizo medium	English medium	Mizo Medium	English medium	Mizo medium	English Medium	Mizo medium	English medium
Aizawl	436 (63%)	261 (37%)	436 (63%)	261 (37%)	427 (62%)	261 (38%)	409 (58%)	298 (42%)	400 (57%)	304 (43%)
Lunglei	369 (71%)	154 (29%)	368 (70%)	155 (30%)	362 (70%)	158 (30%)	380 (71%)	153 (29%)	329 (69%)	150 (31%)
Champhai	266 (77%)	81 (23%)	262 (76%)	85 (24%)	259 (74%)	90 (26%)	257 (72%)	99 (28%)	245 (68%)	114 (32%)
Kolasib	150 (71%)	61 (29%)	149 (71%)	62 (29%)	148 (68%)	69 (32%)	148 (65%)	78 (35%)	145 (64%)	82 (36%)
Serchhip	179 (80%)	46 (20%)	180 (80%)	45 (20%)	134 (75%)	45 (25%)	133 (73%)	48 (27%)	126 (70%)	53 (30%)
Mamit	209 (80%)	51 (20%)	207 (80%)	53 (20%)	208 (76%)	64 (24%)	222 (69%)	101 (31%)	219 (66%)	112 (34%)
Saiha	1 (1%)	180 (99%)	1 (1%)	180 (99%)	1 (1%)	180 (99%)	1 (0.04%)	211 (99.6%)	1 (0.5%)	208(99.5%)
Lawngtlai	153 (36%)	270 (64%)	151 (36%)	272 (64%)	172 (39%)	267(61%)	180 (39%)	276 (61%)	166 (36%)	293 (64%)
Total	1763 (61%)	1104 (39%)	1754 (61%)	1113 (39%)	1711 (60%)	1134 (40%)	1730 (58%)	1264 (42%)	1631 (55%)	1316 (45%)

- Govt. of Mizoram (DISE & UDISE)

1.2   RATIONALE OF THE STUDY

Language has always acquired a central position in human existence. It is a medium through which human emotions, views, ideas and interests are expressed. It has also been recognised as a natural medium of acquiring knowledge, literacy and understanding. In olden days, language instruction has usually been regarded synonymous with more or less total education. Though in modern times, 'education is not restricted to the knowledge of languages alone yet, the importance of language instruction cannot be less than what it has been before, for even now, it is the language or languages which are the chief media of all education from beginning to end. Hence importance of language instruction is self-evident as there can be no formal education in its absence (Aggarwal, 1991).

There is a general agreement that education should be provided in the mother tongue which is a natural medium of instruction. One of the most important principles of educational psychology is first to ascertain what the child already knows, and then to start accordingly (Ausubel, 1968 as quoted by Srivastava, A.K and Khatoon, Rashida, 1980). Education in the mother tongue is believed to facilitate richer classroom interaction because it ensures participation of the learners. It also provides them with an opportunity to express themselves freely thus encouraging them to develop their creativity. This in turn ensures a shift from rote learning to constructivism, critical thinking and problem solving attitudes. Hence, learning is made a joyful experience (Kapur, 2009) The UNESCO report (1953) writes, "Psychologically, it is the system of meaningful sign that in his mind works automatically for expression and understanding. Sociologically it is the meaning of identification among the members of the community to which he belongs. Educationally he learns more quickly through it than through an unfamiliar linguistic medium" (Srivastava & Khatoon, 1980). The National Curriculum Framework-2005 recommends that the children's home language should be their medium of understanding at school so that they move away from rote learning and construct their own knowledge. Education should not be a burden but a joyful experience (Kapur, 2009). The principle of teaching through mother tongue was recommended by the Education Commission 1964-66 to the extent that higher education should also adopt the regional language, same as the school education (N.C.E.R.T, 1970)

Mother tongue, even if considered as the best medium for imparting education, children of today cannot afford to remain monolingual and are required to

learn more than one language which is especially true in our country. English was the language of industrialization and modernization, and now it is the language of globalization (Mallikarjun, 2001). English will continue to enjoy a high status as long as it remains the principal medium of education at the university stage and the language of administration at the centre and in many of the states. Even if the regional languages become media in higher education in the universities, a working knowledge of English will be a valuable asset for all students. A reasonable proficiency in the language will be necessary as English is the foremost language of international communication and learning (Sharma, 2003), being the most commonly used language in books, TV programmes, various internet communications, instruction given in manuals of not only big machines and tools but also in small gadgets, kitchen and warehouse tools, grocery items, cosmetics, pharmaceuticals, clothing, computers, mobile phones and so on. Many perceive mother tongue or regional language education as having failed to create market value for itself in our country and knowledge of English is seen to be the key to economic prosperity. Every parent wished for the best type of education for their children and many believed that it is possible only through English medium. It is a popular misconception that children will naturally adopt fluent English if they are completely immersed in the deep water of English so that they have to swim or else will be sink. Hence policy makers or even parents justified themselves with this false notion. However, the sink-or-swim approach was ruled illegal by the U.S. Supreme court in Lau v. Nichols (United States supreme Court Case, 1974).

When looking into the scenario of Mizoram, like many other Indian states, there is an increasing opening of privately managed English medium schools and an increasing demand for conversion of first language medium school to English medium school irrespective of the quality! In the olden days of the Mizo, the Christian missionaries were credited for the development of the Mizo society. They gave the Mizos letters and alphabets in Roman scripts which are in the line of English. They were intimidated by the white skinned who speak English, and seemed to know everything from medicine to music. Therefore, to the Mizos, English is very much superior and held high. They also developed a strong emotional attachment toward the language itself as it is also the language which gives them new religion, and whatever spiritual guidance they could refer to is found in the scriptures of the Holy Bible, which is translated from English. Such is the sentiments of the Mizo towards English.

In the present day Mizoram, English is held so high that proficiency of English is often confused and misconceived with 'being educated'. What many parents want for their child is simple, 'the ability to speak fluent English'. As a result, very few parents sent their children to government Mizo medium elementary schools. Although the state government invest huge amount of money for the education of very few children in terms of infrastructure, salary of teachers, etc and even mid-day meal and free uniforms no longer attracted parents of poorer families too. Parents are attracted to the way strict disciplines are maintained in the private school, the way teachers and students communicate with each other in English (however broken it might be!) If there ever is a condition where parents can get to choose a content mastery over English proficiency for their children, it would not be much of a surprise if parents choose the latter. Since there isn't any study done yet on the impact of medium of instruction in the context of education of the Mizo, not only parents, but the general public are also unaware of the significance of medium of instruction or what damage it can cause. This clearly showed that attitudes of parents also needed to be shaped, to acquaint them with the ability to differentiate between English proficiency and being educated; the ability to value real learning. Qorro (2013) has also pointed out that, "Viewing English as a ticket to success has also resulted in seeing the objective of education as being primarily to learn English". As such there are misconceptions among policy makers, parents and the general public that the best way to teach/learn English is to use it as medium of instruction. Today we even find a determined effort on the part of government to impose English at the cost of mother- tongue as medium of instruction.

There are justifications for the retention of English as a medium of instruction as well as justifications for mother tongue as medium of instruction. Hence the questions arise-

- Which language should have priority in terms of medium of instructions in our schools?
- Does the state government have a clear cut policy on Medium of instruction at school level?
- What is the appropriate age and grade at which teaching of English be introduced?

- Does the proficiency in the language (medium of instruction) influence the academic achievement?

- What are the reasons for the increased demand for English medium school instruction?

- How do we draw a policy that strike a balance between the demands of national and regional identities and goals of education?

- What are the perceptions of teachers, parents and responsible community members about the medium of instruction in elementary schools?

- What would be the effect on the knowledge acquired by the students if medium of instruction is changed?

- Does the medium of instruction have a significant effect on the understanding of school students?

- Can the falling standards in school education be attributed to a particular medium of instruction?

At present there is no scientific method to predict quantitatively, the effect of changing the medium of instruction, on the knowledge that is acquired by the students. In the absence of such a mathematical yardstick, the debate becomes subjective with opinions expressed for and against the change. In such a situation, the discussions and even the decisions can get influenced by emotions rather than by scientific logic. As far as the knowledge of the researcher is concerned, no study of this nature is conducted in this geographical area.

Now, it needs no convincing that the medium of instruction is a crucial issue, and any solution suggested should be based on research studies. It is in this context that the present study, *Medium of instruction at school level in Mizoram: policy review, impact on academic achievement and perceptions of stakeholders,* is, therefore, carried out.

1.3   STATEMENT OF THE PROBLEM

The title of the problem is, Medium of instruction at school Level in Mizoram: Policy Review, Impact on Academic Achievement and Perceptions of Stakeholders.

The present study aims to find out whether medium of instructions have significant impact on the education of children in Mizoram by comparing students of Mizo medium and English medium elementary schools. It also seeks to explore the

perceptions of stakeholders on medium of instructions, and reviewed the existing policies of the government of India in general, and government of Mizoram in particular, on medium of instructions at elementary stage of education.

1.4 OPERATIONAL DEFINITIONS OF THE TERMS USED

Different words have their different connotations according to their place of reference. Words which are used in the present study have the following operational meanings-

1. **Academic Achievement:** Academic achievement in this study means performance of students of Mizo medium and English medium schools in Middle School Leaving Certificate Examination (MSLC) / Middle English School Leaving Certificate Examination (MESLC).

2. **Elementary School:** Elementary school in this study means a school that provides education up to class eight.

3. **Mother Tongue:** Native language/ the language that is naturally learnt by members of a speech community and employed by them as the first medium of vocalized communication. Mother tongue in the present study refers to the Mizo language.

4. **Perception:** Perception is an act of perceiving; a way of seeing or understanding a particular issue.

5. **Stakeholders:** In the present study, stakeholders are the parents, teachers and students of elementary schools in Mizoram.

1.5 OBJECTIVES OF THE STUDY

The aims and objectives of the present study are:

i) To study the existing policies of the government of India regarding medium of instructions in general and Mizoram in particular on the medium of instruction at school level.

ii) To analyze five year students' enrolment in Mizo and English medium elementary schools in Mizoram.

iii) To compare the profile of students in Mizo and English medium elementary schools in terms of their socio-economic status.

iv) To compare the profile of students in Mizo and English medium elementary schools in terms of their parental education.

v) To compare the profile of students in Mizo and English medium elementary schools in terms of their intelligence.

vi) To compare the profile of students in Mizo and English medium elementary schools in terms of their creativity.

vii) To compare the profile of teachers of Mizo and English medium elementary schools in Mizoram.

viii) To do a comparative analysis of the last four years result of middle school leaving certificate examination of Mizo and English medium schools.

ix) To compare the students of Mizo and English medium elementary schools in terms of their understanding of basic concepts relating to science, mathematics and social studies.

x) To find out the perceptions of students towards the medium of instruction in elementary schools.

xi) To find out the perceptions of teachers towards the medium of instruction in elementary schools.

xii) To find out the perceptions of parents towards the medium of instruction in elementary schools.

1.6   HYPOTHESES OF THE STUDY

In relation to the above objectives, the following hypotheses were formulated-

i) The state government does not have a clear cut policy on the medium of instruction in elementary schools.

ii) There is not much difference between Mizo medium and English medium elementary schools in terms of enrolment of students.

iii) The socio-economic background of students of Mizo medium and English medium elementary schools do not differ significantly.

iv) There is not much difference between the parental education background of students of Mizo medium and English medium elementary schools.

v) There is no significant difference between students of Mizo medium and English medium elementary schools in terms of their intelligence.

vi) There is no significant difference between students of Mizo medium and English medium elementary schools in terms of their creativity.

vii) There is not much difference between Mizo medium and English medium elementary schools in terms of their teacher's profile.

viii) There is no significant difference between the students of Mizo medium and English medium elementary schools in relation to their understanding of basic concepts of science, mathematics, and social studies.

ix) Mizo medium and English medium elementary schools do not differ significantly in terms of their results of middle school leaving certificate examination.

x) There is not much difference in the perceptions of students on medium of instruction.

xi) There is not much difference in the perceptions of teachers on medium of instruction.

xii) There is not much difference in the perceptions of parents on medium of instruction.

1.7 DELIMITATION OF THE SCOPE OF ENQUIRY

The scope of the present study is delimited to the sample English and Mizo medium elementary schools from the three districts of Mizoram i.e., Aizawl District, Lunglei District and Champhai District from the eight districts of Mizoram. The reason for choosing the said districts is due to the fact that Aizawl, being the urban capital city is a reflection of the general feature of Mizoram; Lunglei and Champhai being the second and third populous districts respectively which accommodated both rural and semi urban features.

Hence the analysis of the data relating to profile of students and teachers; perceptions of different stakeholders; analysis of examination results; understanding of students' basic concepts of science, mathematics, and social sciences, are collected from the given samples.

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CHAPTER – II

REVIEW OF RELATED STUDIES

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REVIEW OF RELATED STUDIES

2.0   INTRODUCTION

Review of the literatures and its evaluations provide insight into the research work of the researcher and serve as a suitable frame of reference and guided the researcher in the process of research. Best (1992) has rightly mentioned that citing studies that show substantial agreement and those that seem to present conflicting conclusions helps to sharpen and define understanding of existing knowledge in the problem area. To enable coherent presentation and ease of perusal the relevant literature is organized under subsections as presented below:

2.1.   STUDIES CONDUCTED IN INDIA

Despite the fact that the debate on medium of instruction has been going on in our country for many decades now, it is quite surprising to find that not much empirical studies have been conducted on it especially in the area of perceptions of stakeholders! Before the year 2000, there has been an even lesser study available on medium of instructions.

2.1.1.   Studies Relating to Language Policy and Perceptions of Stakeholders on Medium of Instructions

Findings of **Aggarwal, (1988)** in the sociolinguistic study of Indian university students' attitudes and perceptions towards English and of their use of English titled, "English and India's three-language formula: An empirical perspective" revealed that students had a favourable attitude towards English, recognized its prestige and were instrumentally motivated to study it. Furthermore, they preferred English to Hindi as a link language, and did not want Hindi to be taught in educational institutions. It also showed that they favoured a two-language formula to the present three-language formula.

A study conducted by **Kumudhavalli, (1999)** entitled, "Relationship between the medium of instruction and academic achievement and adjustment of primary school children" revealed that parents selecting mother tongue as the medium of

instruction for the child was guided by economic factors than by any desire or understanding of the values of education in mother tongue. In other words, advantages of mother tongue medium, even if apparent, the parents would have, if circumstances permitted, selected English medium for their children.

The same study also touched on the medium of instruction and academic achievement; the findings for this study were given in the sub heads 'Studies relating to medium of instruction with socio-economic status, academic achievement, creativity, and intelligence'.

In a study conducted by **Kumbhar, (2000)** titled, "A study of the impact of the medium of instruction at school level on the performance of individuals pursuing engineering and medical courses", an attempt was made to find out the opinions of the teaching staff of professional (Engineering and Medical) colleges and non-professional (Arts, Commerce and Science) colleges, as well as the opinions of parents whose children were studying in Marathi as well as English medium schools to find out why they had selected a particular medium of instruction for their child. The findings were:

i) A majority of professional college (both Engineering and Medical) teachers opined that the grasping power of Marathi medium students was limited, when taught in English and they required explanation in Marathi. However more than half of the Engineering College teachers recommended Marathi medium at school level whereas the equal number of Medical college teachers favoured Marathi medium and English medium. This could be due to the fact that most of the teachers (88%) had Marathi medium and as many as 85% had Marathi medium at school level. Since their background did not hamper their studies and are serving in their colleges, and their love and pride for their mother tongue-Marathi is likely to have made them formed their opinion.

ii) Among the parent respondents, parents of children studying in English medium school were educationally well or highly qualified and occupationally well placed, whereas majority of the mothers were housewives. In selection of English MI for their ward, they assigned reasons such as English being an international language and useful for professional education. Surprisingly, about 25% of parents felt that their child could have progressed better if they had opted for Marathi MI. This could be attributed to the fact that proper

environment for learning English was not available at home. In fact in more than 25% of the families, nobody could converse with their wards in English.

iii) Among the Marathi school parent respondents, a large number of parents were poorly educated and occupationally poorly placed. A sizable number of mothers were illiterate. Except one, all the fathers had Marathi MT and MI at school. Majority of them said that Marathi MI would not come in the way of progress of their wards. However, some of them stated that it might come in the way of their progress and a few were in dilemma.

The same study also touched on the medium of instruction and academic achievement; the findings for this study were given in the sub heads 'Studies relating to medium of instruction with socio-economic status, academic achievement, creativity, and intelligence'.

A study on the current policy framework of the participating states of Janshala programme with regard to the medium of instruction in government schools in tribal areas and meeting the needs of sound education of tribal children in terms of the posting of teachers, development of textbooks and curricula, training of teachers, etc. was made by **Gautam, (2003)** titled**, "Education of tribal children in India and the issue of medium of instruction: A Janshala experience"**. Janshala is a joint programme of the Government of India and five UN agencies (UNDP, UNICEF, UNFPA, UNESCO and ILO) for the universalisation of primary education among educationally underserved communities. The programme is being implemented in nine Indian states. Records collected in schools in the Janshala Programme areas indicated continuing high "dropout" rates among tribal children. Major reasons found for this were:

i) In most states the medium of instruction was the regional language. Most tribal children did not understand the textbooks, which were generally in the regional language. The appointment of non-tribal teachers in tribal children's schools was another problem

ii) The teachers did not know the language the children spoke and children did not understand the teacher's language.

iii) The evidences suggested that tribal children did possess the basic cognitive abilities and psychological dispositions necessary for successful participation in school. Yet tribal children had very low levels of participation and success

in school education programmes. Further, the study implied that a programme of schooling, which did not pay attention to the ecological, cultural and psychological characteristics of tribal children, was highly unlikely to make any significant impact. The educational system of the dominant non-tribal population was of very limited value in the tribal cultural milieu because it did not match with the lifestyle of individuals and the needs of the tribal community. Linking school education with life in general and the needs of the tribal communities in particular was the most important step that requires serious attention.

An attempt was made to address the negative impact of imposition of English as a sole medium of instruction on native languages and native population empowerment by **Sharma, (2003)** titled, "The language whose users never sleep. Growing dominance of English in India and South Africa". The paper reflected that one of the justifications of prolongation of English as an official language was furnished by citing examples of Canada, Switzerland, etc but did not considered the fact that political history of those countries were different from India and that they had adopted languages from amongst their own national languages, whereas English was a foreign language for India. To assume English to be the language of inter-state communication was to ignore the reality of ever day life where in estimating English using population in India, English was used by 10 percent of the population. Suggestions like making Hindi flexible and mass-based, teaching English in an Indian manner as well as other international languages like German, etc with a promotion for bilingualism were made.

An analysis of the language policy and the status of English as a medium of instruction at both levels of school education and higher education by **Chinara, (2006)** titled, "Language policy and status of English as a medium of instruction: A contextual analysis" revealed that the overall policy consensus with regard to the educational medium had been implemented more in the breach than in the observance at both primary and secondary stages. And the demand for teaching non-language subjects through English medium was rising at an increasing pace at both school and higher education levels irrespective of official recognition. The paper stressed that early English education at the cost of mother tongue education which came

spontaneously from exposure to environment created chasm between the child and his environment, which in turn limited the child's natural growth. Thus, competence in the mother tongue and learning through it should be a pre-requisite before learning a foreign language like English. Further, suggestions for urgent steps of implementing the mother tongue medium of instruction in the primary and secondary levels uniformly across the country, without neglecting the study of English as a subject, were made.

Meganathan, (2011) had explored language policy-making processes in the Indian context, implementation issues and the place and role of English in school education in his study entitled, "Language policy in education and the role of English in India: From library language to language of empowerment". The study concluded that Language policy in India had adapted itself to the changing demands and aspirations of people over the period of time from 1947 to the present. And also added that it was better to have English taught as a subject rather than impose a bad English medium education. Equipping English language education with the essentials in the native medium schools would benefit learning in general and language learning in particular. But converting schools to become English medium without proper support would be detrimental and counterproductive. Consequently, teacher education was one major area which needed drastic changes if quality teachers were to become available. Materials development (particularly textbooks) for the teaching and learning of English had not yet been professionalized. The creation of English enabling environment had to be encouraged through curricular and other activities in and outside school.

Study conducted on the attitude of the students coming from English Medium schools and Vernacular Medium schools by **Pathan and Shiakh (2012),** titled, "Students attitude in English and vernacular medium in secondary schools" had the following:

i) There was a significant difference between the English medium student's attitude towards self and other pupils as compared to the vernacular medium students' attitude towards self and other pupils.

ii) The English medium school boys and girls attitude towards self and other pupils were better as compared to vernacular medium schools.

iii) There was no significant difference in students' attitude towards teachers from English and vernacular medium of instruction in schools.

A study done by **Saba, (2013)** titled, "Linguistic heterogeneity and multilinguality in India: a linguistic assessment of Indian language policies" gave an approximation of the rate of multilingualism among university students and their views regarding the language policy of India and the problems regarding the implementation of language policies in India. The findings concluded that language policies of India were made to maintain and promote diversity and multilingualism, and the problem was at the implementation level. The researcher further expressed that although language policy in general supported multilingualism, there were no strict rules of execution of those policies.

Some views regarding the problem in implementation of language policy were:

i) Intentionally wrong reporting of the languages in the census.

ii) Grouping of dialects in one language even if they were very distinct.

iii) It was not possible to render all the mother tongues of India because of economic limitations.

iv) Showing only 5% spoke non-scheduled languages.

v) Unawareness among the language speakers about their mother tongue.

vi) Undue interference of power and politics.

vii) No definite definition of mother tongue described in the constitution.

viii) All mother tongues did not get their place in education.

A study done by **Rathore, Pancholi, (2013)** to evaluate the pros and cons of education given in second language in a country like India for a medium of instructions titled, "A study of the effect of medium of instruction on students' anxiety at college of education" found that teachers of English medium college suffered from more anxiety than Gujarati medium college teachers. They committed mistakes in classroom instruction, they were not able to express personal problems with peers and teachers; had inconsistency in the use of language, and often requested the teacher educators to repeat the points.

A study made by **Basu, (2014)** looked in to the basic nature of language conflicts in India and Switzerland titled, "Linguistic conflict and language policy in multilingual societies: A case study of Switzerland and India". The study concluded

that in the case of India, numerous provisions and safeguards had been identified regarding language and language groups especially in the Constitution. They aimed at national development, representativeness and cohesion while attempting to preserve the linguistic and cultural distinctiveness of minority groups. Yet a basic framework as was apparent in the case of Switzerland which could accommodate various permutations and combinations of a complex social structure was yet to be formulated.

A study conducted by **Ratti, (2015)** on the Indian multilingual situation and the linguistic diversity of the learner titled, "The three language formula: Challenges in its implementation in multilingual India" stressed on the mother tongue education and creating opportunities for the official and regional languages, in the higher education system as well in the economic structure, in comparison to the market "dominated" languages. The study further concluded that the challenge of the acceptance of Hindi, Sanskrit and other regional languages could be resolved in a better way if the market forces create economic opportunities for these languages in the same way as for English, French and Spanish; so that the self-esteem of the person, who was proficient in Hindi, Sanskrit, Urdu, Maithili, Tulu or any other non-dominated language could climb up the socio-economic ladder.

Shende, (2015) had a comparative study on the attitude of English medium (EM) and non-English medium (NEM) school teachers towards English as a language and English language teaching (ELT) and to study differences if any, in their attitude titled, "A comparative study of attitude of teachers in English and non-English medium school/colleges from grade 8 to grade 12 in India". The findings of the study suggest that EMS teachers had highly positive attitude towards the profession and teaching English as a subject; whereas NEMS teachers were moderately positive in this regard. The EMS teachers were favourably disposed with highly positive attitude towards the learners, their abilities for learning English as well as their performance in English language. But the NEMS teachers were moderately positive in this regard. Both the EM and NEM teachers had favourable attitude towards importance of English language in general.

2.1.2. **Studies Relating to Medium of Instruction with Socio-economic Status, Academic Achievement, Creativity and Intelligence.**

Anand, (1971), in his study of Kannada and English medium students titled, "A study of the effect of socio-economic environment and medium of instruction on the mental abilities and academic achievement of children in Mysore state", found the former significantly superior in achievement and verbal intelligence and the latter in non-verbal intelligence.

A pilot study conducted by **Srivasta, Khatoon, (1980)** in the schools of Mysore city with standard eight students showed that the English medium students scored significantly better than those in Kannada medium on the measures of non-verbal intelligence and the three dimensions of verbal creativity, namely, fluency, flexibility and originality. However, when the school related measures were controlled, there was hardly any difference between the two streams.

A study conducted by **Kumudhavalli, (1999)** entitled, "Relationship between the medium of instruction and academic achievement and adjustment of primary school children" to find out whether the medium of instruction affects the scholastic achievement and adjustment, showed that in comparison of the academic achievement i.e. the average marks scored by the children of English medium and Gujarati medium, the two groups did not differ significantly in the aggregate marks scored. But English medium children had performed better in Mathematics and Gujarati medium children had scored higher in EVS. The study also reflected that in spite of poor environmental assistance and less supportive factors, Gujarati medium children had performed as well as or better than the English medium children.

A study conducted by **Kumbhar, (2000)** on the effect of medium of instruction at school level on the performance of the individuals in their later life titled, "A study of the Impact of the medium of instruction at school level on the performance of individuals pursuing engineering and medical courses" revealed the followings:

i) Amongst the one fifth of the engineering and medical students who experienced difficulties in understanding lectures in English, the proportion of Marathi MI students was as high as 83.5%.

ii) Amongst the first year engineering and medical students, those of rural origin experienced more difficulties in understanding lectures in English than those of urban origin.

iii) Amongst the final year engineering and medical students, a few students still faced difficulty in understanding lectures in English (3.3%) and expressing in writing (8.7%) but a sizable number still had difficulty in expressing in English during the viva-voce of their practical examination. The Marathi MI students had more problems than English MI students

iv) The effect of Marathi medium at school level on the number of 'pass' and 'fail' students of the first year as well as final year engineering and medical students was found to be non-significant.

v) The performance of the final year engineering and medical 'pass' English medium students on the basis of percentage of marks was found significantly superior to their counterparts of Marathi medium of instruction

Ramasamy, (2001) in his study titled, "Mother tongue and medium of instruction- A continuing battle" found that student in the English medium group scored higher than others on the non-verbal intelligence tests which may be due to their original endowment from the earlier age, and the mother tongue medium group scored higher in verbal creativity. He also concluded that the impact of mother tongue medium on students was of pragmatic approach than that of English medium instruction.

Studies conducted by **Sam, (2001)** titled, "Mother tongue education and psycho-societal involvement in tribal communities: A case study of Paniya Tribe" revealed that early introduction of a foreign language distorted the accumulated vocal and verbal facility, thought process and cognitive equilibrium and accounted for a good proportion of primary school dropouts.

A research paper by **Kapur, (2009)** titled, "Language - Our medium of understanding" studied policy-documents on the use of mother-tongue as the medium of instructions and the contradicting practices in India, pointed out that many languages had lost their existence because they did not get adequate place in the school curricula. Children may retain receptive skills in the language but they could not use it effectively in different context, and in the long run, become alienated from their cultural and linguistic moorings. The use of mother-tongues and multi-lingual education helped in developing the cognitive skills of the learners as they could focus on the subjects being taught without having to struggle with language issues, and in turn safeguards indigenous and endangered languages. The paper suggested that along with the mother-tongue medium of instruction, every possible effort should be made to sustain bilingualism throughout school education as there was a highly positive relationship between multilingualism and scholastic achievement.

A study conducted by **Lalremruata, (2011)** titled, "Evaluation of primary school children in relation to minimum levels of learning" also highlighted few common phenomena in relation to the present study as comparisons were made between students of government primary schools which adopted Mizo medium of instruction and students of private primary schools which adopted English medium of instruction; as well as teachers of government primary schools and private primary schools thus, revealed the followings:

i) Children of private primary schools were significantly better than that of government primary schools only in mathematics but worst in EVS and Mizo (language).

ii) Children in urban primary schools were significantly better than their counterparts in rural primary schools in all the three subjects measured.

iii) There was no significance difference in the performance between boys and girls in EVS. However, girls performed significantly better than boys in mathematics whereas boys significantly performed better than girls in Mizo (language).

iv) In terms of teachers' educational qualification, private primary schools were in a much better position than government primary schools. However, in terms of teachers' professional or training qualification, government primary schools were much better than private primary schools.

Bhattacharya, (2013), in studying the different literacy practices influencing the negotiation of the instructional medium, their impact on language learning, and their wider language policy and planning implications, titled, "Mediating inequalities: exploring English-medium instruction in a suburban Indian village school" revealed how 'English-medium' instruction in a typical small, private Indian school catering to poor children led to restricted acquisition of English, in ways that also constrained students' ability to access educational content across subject areas. Thus, poor children who enrolled in these schools in increasing numbers precisely because of the schools' self-identification as English-medium institutions ended up doubly disadvantaged, because they were cut off from both language and content.

Khan, Ayyub (2013), in their study on the relationship between academic stress and socio-economic status among IX standard students of English and Hindi medium schools titled, "To study the relationship of academic stress and socio-economic status among ix standard students of Raipur city", had revealed that there was positive but low relationship between academic stress and SES of English and Hindi medium students. The difference in the level of academic stress of English and Hindi medium students was found to be insignificant whereas the difference in level of academic stress of boys and girls of both English and Hindi medium schools was found to be significant.

Study of **Rahman, (2013)** entitled, "A comparative study of achievement in science of Muslim and non-Muslim students at secondary level in relation to certain personal and institutional factors" found that Muslim and Non-Muslim students studying through English medium were better in achievement in science, had favourable attitude towards science, better in intelligence, good in socio-economic status than Muslim and non-Muslim students studying through Hindi medium. The study further implied that in general the performance levels of the students of both the communities were better in private schools with conclusions that private school had better infrastructure and teaching quality, therefore, attracted children of higher intelligence, having positive attitude towards science and better in socio-economic status. In this context government should provide special attention to infrastructure and teaching standard in minority managed schools, government-aided schools and government-funded schools for better performance of students of these schools.

2.2   STUDIES CONDUCTED ABROAD

Across the globe, we found post-colonized countries that also adopted different medium of instructions and were also facing certain problems and issues like India. Hence, there had been tremendous studies done on medium of instructions and related issues outside India. The researcher selected few of them that would throw light on different variables pertaining to language and education, significant for the present study.

2.2.1   Studies Relating to Language Policy and Perceptions of Stakeholders on Medium of Instructions

Urevbu, (1984), in analyzing the dilemma created by the English language and the mother-tongue aspect of the national policy on education, titled "English language and the mother-tongue dilemma in Nigeria: A critical assessment of the new national policy on education", examined the English language and the mother-tongue medium policy which were two of the three major aspects of the government's language policy in education. The other major aspect was the multilingual policy. The study concluded that no solution could be ideal in a complex language situation like Nigeria. It was probable that there must be a compromise between the national desire to promote the use of the mother-tongue in education and the generally accepted necessity to learn English at some stage.

A study done by **Williams, (1998)** on the research that took place in primary schools in two developing countries which operated contrasting policies, Malawi and Zambia titled, "Investigating bilingual literacy: Evidence from Malawi and Zambia" pointed out that in Malawi the policy was to teach through the medium of a major local language, Chichewa, for the first 4 years, with English as a subject; in Zambia on ,the other hand, the policy was to teach everything through the medium of English from the beginning of year 1, with a local language taught as a subject. The study found that the reality for most pupils was that the English language, far from being a bridge to knowledge, was in fact a barrier. The study added that the use of English in primary schools was a double-edged sword, and was indeed educating a minority of individual pupils who moved on towards the coveted white-collar jobs. On the other hand, the majority who failed to acquire adequate skills in English continued with an

English medium education in a miasma of incomprehension. In the absence of comprehension there could be little development of academic concepts or skills, and there was a real danger that the school experience may be a stultifying, rather than an enlightening one. And suggested initial literacy in a local language, would be for the local language to be used as the sole medium of instruction throughout primary schooling, with English taught, but only as a subject, from year 3 onwards.

An investigation on students' attitude towards Sidama language as a medium of instruction and its determination on the language achievement done by **Adamu, (2002)** titled, "Students' attitude towards mother tongue instruction as a correlate of academic achievement: The case of Sidama" indicated that students of grade 7 and 8 had positive attitude towards their vernacular language instruction without sex differences, and attitude was identified as a vital predictor of Sidama language achievement. On the basis of these results it was suggested that teachers and educational practitioners should give due attention to attitude and motivation during instruction besides the cognitive factors.

Iyamu, Ogiegbaen, (2005) had examined the perceptions of parents and teachers of the wisdom of the policy of the mother-tongue medium of instruction as well as the constraints to the implementation in the schools, despite evidence on its potency for promoting children's learning titled, "On the mother-tongue medium of instruction policy- curriculum innovation and the challenges of implementation in Nigeria". The data analysis showed that parents and teachers were perceptive of the wisdom of the policy, and that the push for a language of wider communication and lack of relevant materials were greater constraints to the implementation. Recommendations made included the need for a re-orientation of parents and the public and genuine commitment of government to facilitate the implementation of innovative curriculum.

Hu, (2008), in the study of the prevalent discourse on bilingual education in China, titled, "The misleading academic discourse on Chinese-English bilingual education in China", contended that the academic discourse with its misconceptions, misrepresentations, and misinterpretations had misled stakeholders of bilingual education. Further demonstrating that the eagerness to promote bilingual education,

the contributors to the academic discourse had collectively presented a biased picture of bilingual education in other parts of the world by focusing only the successful stories in developed countries or regions, eschewing controversies and problems surrounding bilingual education, and ignoring unfavourable research findings. The study concluded that, the academic discourse on bilingual education had helped not only to perpetuate existing inequalities in the distribution of power and access to opportunity but also to create new forms of inequality that were further differentiating the Chinese society vertically.

Bahous, Bacha, and Nabhani, (2011), in their study of the experiences of teachers involved in the implementation of the new curriculum 1994, which required all schools to have either English or French as a first foreign language and medium of instruction, and the other as the second foreign language titled, "Multilingual educational trends and practices in Lebanon: A case study", found that foreign language was valued and held prestigious however, teachers faced difficulties in motivating students, addressing students' special needs and often teached without the needed resources when teaching English and French. The findings indicated the school systems, in keeping up with this multilingual milieu, could be contributing to the death of the national language as well as producing students who would not be fluent in any of the languages. The main concerns of the participants were the need for teacher training programmes and resources.

A study done by **Chiatoh, (2011),** entitled, "Sustaining mother tongue medium education: An inter-community self-help framework in Cameroon" focused on the inter-community self-help initiative as a local response framework for mother tongue education and literacy planning in minority language contexts. The initiative had manifested itself in three different but closely interrelated ways, namely rotational financial self-help, common federal structure and transfer of technical skills. The study argued that the initiative was a strong indication of the desire of communities to learn and promote learning in their own languages; and concluded that the approach recognises Africans, despite their differences, as one and the same people and emphasised the necessity for a community-driven spirit of self-reliant development.

Clegg, Afitska, (2011) in their study of the attitudes of teachers and authorities to the use of two languages in particular, on the way low learner ability in the medium of instruction limited talk and necessitated bilingual interaction titled "Teaching and learning in two languages in African classrooms, comparative education", observed that teachers in Africa tended to generate their own creative bilingual practices since both teachers and learners were often not be fluent enough to use the language as a medium of instruction. Further, they emphasized the relative absence in African teacher education of the specialist pedagogy which learners with low ability in the medium of instruction required and proposed that bilingual education be formally recognized and promoted by authorities.

A study conducted by **Malone, Paraide, (2011)** titled, "Mother tongue-based bilingual education in Papua New Guinea" pointed out that the government of Papua New Guinea had considered linguistic diversity a resource rather than a problem and the desire to maintain traditional language and culture remained strong in most parts of the country. The study also revealed that not all of the signs of successful implementations were yet in place partly due to a general lack of understanding on the part of national, sub-national and community stakeholders of the rationale, benefits and features of strong and successful mother tongue-based bilingual education.

A research paper by **Utne, (2012)** titled, "Language policy and science: Could some African countries learn from some Asian countries?" reflected that most children in Africa were taught in a language neither they nor their teachers masters, resulting in poor education. While there were also donor interests and donor competition involved in retaining ex-colonial languages, as well as an African elite that may profit from this system, one of the main reasons why teaching in ex-colonial languages persist lie in the fact that a large proportion of the general public still believes that the best way to learn a foreign language was to have it as a language of instruction. By contrast, research studies conducted in Africa, as well as examples from Asian countries such as Sri Lanka and Malaysia had shown that children actually learn mathematics and science much better in local and familiar language. The paper suggested that when it came to language policy, some African and some Asian countries could learn from each other, further reiterating that although there

were other factors contributing to development, development could not occur in the post-colonial circumstances of Africa and Asia without the centralisation of the languages of the masses as languages of educational instruction.

A research paper of **Qorro, (2013)** titled "Language of instruction in Tanzania: Why are research findings not heeded?" reviewed studies done on language of instruction in Tanzania from 1974 to 2013, and revealed that most of the studies reviewed underscored the importance of having education in the language they understand; and further argued that English was an inappropriate choice as language of instruction in Tanzania which was incomprehensible to most, but also disconnected or alienated the schooled from the rest of the society. The studies reviewed also acknowledged the importance of learning English as an additional knowledge.

Study conducted by **Muktar, (2015)** to determine perceptions of students, teachers and parents concerning Somali-medium of instruction and their perceptions on Somali language as a medium of instruction in public primary schools entitled, "Perceptions of stakeholders on Somalia language as a medium of instruction in public schools in Benadir region, Mogadishu, Somalia" found that most of the pupils and majority of both the teachers and parents liked Somali language during class and at home. The study concluded that the language of instruction was one of the important things for learning and teaching and recommended curriculum development. The study further stressed on the Ministry of Education to ensure availability of adequate teaching and learning resources including physical resources instructed in Somali language so as to be easily used by the stakeholders, and finally to train teachers in a way they could make Somali language liked by the students.

A critique of Malawi's new language of instruction policy by **Kamwendo, (2016)** titled, "The new language of instruction policy in Malawi: A house standing on a shaky foundation" revealed that a strength of ample empirical evidence supported the mother tongue as the best medium of instruction in the initial phases of primary education. The new policy stipulated English as the medium of instruction from the first year (Standard I) of primary school in a country where English was not the dominant household communication. The researcher further argued that English as

a medium of instruction could not serve as strategy for eradicating low English proficiency among Malawian learners.

A research paper by **Lumumba, (2016)** titled "Evolving African attitudes to European education: resistance, pervert effects of the single system paradox, and the Ubuntu framework for renewal" critically examined the dynamics of education and the struggle by African people for freedom, control of the mind, self-definition and the right to determine their own destiny from the start of the colonial rule to the present. The study reflected that the exclusive use of European languages of instruction constituted one of the major negative factors with enduring impact that had been entrenched in African education system and presented an embedded stumbling block. The study suggested that using and studying an African language grounded in relevant philosophy of education and an African-centred curriculum would reveal the forgotten or untapped resources of positive African values and cultural practices; with a conclusion that mother-tongue instruction at primary school level, if implemented, would enable the country to move toward a more inclusive and culturally relevant education for all of its primary school learners, which would then enhanced their access to quality education at higher levels.

A study on policies regarding languages in education, both at the macro- level, and micro-level done by **Utne, (2016)** titled, "The Ubuntu Paradigm in curriculum work, language of instruction and assessment" deals with how far was it possible for developing countries to adhere to an education policy based on their own values when they had to participate in tests like TIMSS and PISA for development. The study pointed out that since independence, educational research in Africa had been constantly debating what quality in education may mean in their own context and how it should be assessed. And thereby, suggested that education in Africa should be built on African values, ideals and needs. Whether and how learning should be assessed should also be decided by African themselves in a way that fitted the education given. In order for Africa to build up an education system that adhere to the values of Ubuntu it was therefore critical both to teach in the languages learners spoke and understood and to avoid the western testing regime.

A study which examined the language policy and research on technological developments in English language teaching in Malaysia by **David, Dumanig,(2017)** titled, "Language policy and research on technological developments in English language teaching in Malaysia" revealed that the demand of English had resulted in changes to the teaching of English in schools, colleges and universities. The findings further implied that the use of Facebook, Blogs, WhatsApp and other technologically driven approaches had become popular methodologies in teaching English. Due to rapid technological development, it was recommended that training for English language teachers was necessary in order to cope with the rapid demand for pedagogy that incorporated IT so as to meet the needs of technologically advanced learners.

2.2.2 Studies Relating to Medium of Instruction with Socio-economic Status, Academic Achievement, Creativity and Intelligence.

Kangas, (1976) on a case study of the education of second generation Finnish workers in Sweden, titled "Teaching migrant children's mother tongue and learning the language of the host country in the context of the socio cultural situation of the migrant family" concluded that, children who had received intensive teaching in their mother tongue run less risk of becoming semi-lingual than those who had had all their schooling in second language.

Yeung, Marsh and Suliman, (2000) in the study titled, "Can two tongues live in harmony: Analysis of the national education longitudinal, study of 1988 (NELS88) longitudinal data on the maintenance of home language", examined the relations of first language, proficiency to subsequent use of that language, English proficiency, and academic achievement, and found that the impact of first language on academic achievement was positive, indicating facilitative effects rather than detrimental effects of first language on academic work. The result did not support speculations that home language proficiency would have persistent negative effects on English and other academic outcomes, but suggested the need for support in L1 (first language) enhancement for home language maintenance.

Mlay, (2010), in the study of the impact of using English as the language of instruction on students' academic performance in secondary schools particularly contrasting urban and rural schools in Tanzania titled, "The Influence of the language of instruction on students' academic performance in secondary schools: A comparative study of urban and rural schools in Arusha-Tanzania", indicated that students in urban secondary school performed better than students of the rural school; however the difference between the schools was marginal. The findings also showed that the use of similar coping strategies and lack of student participation in class of both schools, the scarcity of learning materials, teacher-centred methods, overcrowded classrooms and lack of physical facilities such as a library hampered effective learning and developing language skills.

The same study considered that English was still the language of instruction; therefore, measures needed to be taken to solve the language problem, and recommended the teaching of English as a subject to promote effective and efficient teaching and learning in classrooms as well as initiation of reading programs and oral exercises for students. To improve teachers' language and pedagogy skills English training workshops and professional pedagogy workshops for all subject teachers were also suggested.

Nikiema, (2011) in comparing the sociolinguistic situations, the conditions of the development of multilingual education and the achievements of mother-tongue-medium education in all three former French colonies of West Africa, namely Burkina Faso, Mali and Niger titled, "A first-language-first multilingual model to meet the quality imperative in formal basic education in three 'Francophone' west African countries", had the evidence that contrary to common discourse in "Francophone," a strong first-language-first model in formal education was the best guarantee of a good mastery of French and, more generally, of quality education in francophone countries.

An attempt to examine the effect of language of instruction on educational outcomes was done by **Walter, Dekker, (2011)** in a controlled study titled, "Mother tongue instruction in Lubuagan: A case study from the Philippines". Findings in relation to the present studies were:

i) Maths was the subject for which the greatest difference occurred between control and experimental groups with a 27-33 percent differential.

ii) The differential in reading was relatively constant at 23-24 percentage points.

iii) The use of primary language as a language of instruction was not compromising children in learning the second language. Contrary to popular belief, children of the controlled group who were receiving most or all of their instruction via English did consistently worse on a test of knowledge of English than did the experimental group who were taught to read via the local language with English as a second language.

Lo, Lo, (2014), in the synthesis of research studies of EMI (English as the medium of instruction) education in Hong Kong titled, "A meta-analysis of the effectiveness of English medium education in Hong Kong" showed that students in EMI secondary schools were more proficient in second language and performed better on measures of affective variables. Yet their learning in other content subjects suffered. The meta-analysis further suggested that using L2 (second language) as the MoI (medium of instruction) did not guarantee successful L2 learning without sacrificing academic achievement. Rather such kind of programs could achieve its dual aim depending on many other factors, which may include the socio-linguistic contexts, the actual programme implementation in schools, students' language proficiency, teachers' pedagogical practices and the typological differences between the languages involved.

Komba, Bosco, (2015), attempted to find out whether or not students' backgrounds in the medium of instruction (i.e. English or Swahili language) used at primary school level in Tanzania influence their academic performance at the subsequent levels of education, in their study titled, "Do students' backgrounds in the language of instruction influence secondary school academic performance?", observed that there existed a significant difference in students' academic performance between the two categories of students. Students who had been taught in English at primary school level performed better than their counterparts whose language of instruction at primary school level were Swahili. The findings of this study seemed to be logical because at secondary school level, the language of instruction was English. Language of instruction was the one in which basic skills and knowledge was

imparted to students, and the medium in which the production and reproduction of knowledge were transacted. The findings recommended that the government should ensure that the language of instruction which was used at primary school level was maintained throughout the education system.

Aliyu, (2016) in the investigation of the influence of family socio-economic status on academic achievement of senior secondary school students, titled "Influence of Socio-economic Status on academic achievement of secondary students in Nassarawa zonal education area of Kano state, Nigeria" showed that there was a significant relationship between the family's socio economic status and academic achievement. Based on these findings, it was recommended that government should provide schools that would accommodate all the students irrespective of their family background and a conducive school environment and more experimental curriculum that would compensate the detrimental effect of low socio economic status of some parents.

An investigation on the impact of a mother tongue on the learning abilities of pre-school children in one of the states in Nigeria done by **Awopetu, (2016)** titled, "Impact of mother tongue on children's learning abilities in early childhood classroom" revealed that there was a direct relationship between the language of instruction used by the teacher and pupils' learning abilities, and recommended the followings:

i) The Nigerian government should address the implementation of the National Policy on Education on the part of language of instruction in early childhood settings more seriously.

ii) Schools should be made to understand their role as agents in promoting of multicultural Nigerian traditions.

iii) Seminars and workshops for teachers must be organized to educate them on the importance and effectiveness of the language of the immediate environment in the early years of learning.

iv) Schools should organize forums for parents to educate them on the importance of the language of the immediate environment in a child's life and on how to encourage children to speak their native language at home.

A study on the influence of mother tongue on students performance in English language in junior school certificate examination conducted by **Oluwole, (2016)** titled, "The impact of mother tongue on students' achievement in English language in junior secondary certificate examination in western Nigeria" pondered if mother tongue was solely the cause of the students' woeful performance in English language in junior school certificate examination or if there were other complementing factors. The findings revealed that mother tongue influenced the students' poor performance in English language in Junior School Certificate examination and that there were other factors contributing to students' poor performance in English language. These other factors were poor method of teaching, lack of textbooks, language background and lack of professional growth and development of teachers.

An investigation on the impact of mother tongue on achievement of English learning Pakistani students of Secondary school level who spoke Saraiki, Urdu or Punjabi, done by **Khan, Riffat, Muhammad, Tasneem and Iqbal, (2017)** titled, "Impact of mother tongue on learning English language on secondary school level students" revealed that there was no direct impact of mother tongue on second language. The logic behind this fact was that English was quite a different language for the learners belonging to the students of three different mother tongues.

2.3 CONCLUSION

Multilingualism is a very common phenomenon around the globe, and that various studies with related variables have been conducted in India and abroad. Available data indicated that there are many more bilingual or multilingual individuals in the world than there are monolingual (Tucker, 2011). Problems of medium of instructions with conflicting situations have also been witnessed in many parts of the world. From the few cited studies in India and abroad, it may be safe to generalize and conclude the followings:

i) Mother-tongue medium of instruction is found to be the most conducive medium for education of a child.

ii) The significance of proficiency of multiple languages is recognized and expressed in today's world.

iii) English proficiency is greatly sought for around the globe and many countries have adopted it as a medium of instruction.

iv) Many research studies supported the study of English as a subject and not as a medium of instruction.

v) Innovative approaches and techniques of education involving the use of two or more languages have been supported.

vi) Studies on perceptions of stakeholders are few especially in India

vii) Stakeholders also needed guidance and awareness with regard to medium of instructions.

viii) Policy makers also needed to be aware and acquaint themselves with the knowledge of researches conducted in relation to language or medium of instructions.

An examination of the review of related studies revealed some research gaps. To name a few, as far as the knowledge of the researcher is concerned, there is not yet any study conducted in the state of Mizoram on educational policy regarding the medium of instructions; on the impact of medium of instructions; nor on the perceptions of stakeholders with regard to medium of instruction. In India, there was also a dearth of studies on perceptions of stakeholders regarding medium of instruction. With this perspective in mind, the researcher has taken into consideration the medium of instructions and related variables as a subject of enquiry which is of prime importance when looking at the present situations and conditions prevailing in Mizoram.

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CHAPTER – III

METHODOLOGY AND PROCEDURE

CHAPTER-III
METHODOLOGY AND PROCEDURE

3.0   INTRODUCTION

The reliability and validity of any research largely depends on the methodology and procedures adopted for the conduct of research. Thus a separate chapter has been devoted to explain the methodological issues relating to the present study.

3.1   METHOD OF STUDY

Survey method of research was employed in the present study, wherein, both primary and secondary data relating to the various objectives were collected from relevant sources. Analysis and interpretation of data was done by blending descriptive and analytical approaches to survey research.

3.2   POPULATION AND SAMPLE

The researcher had drawn the various samples from the following 3 populations and generalized the findings to the same population groups.

3.2.1   Population

Population-I: All students of Class Eight of both English and Mizo medium elementary schools in Mizoram.

Population-II: All parents of Class Eight of both English and Mizo medium elementary schools in Mizoram.

Population-III: All teachers of Class Eight of both English and Mizo medium elementary schools in Mizoram

3.2.2   Sample

Samples for the present study relating to students, teachers and parents were drawn through multistage cluster sampling by identifying 14 Mizo medium and 10 English medium elementary schools within the three districts of Mizoram and then included all students of Class VIII and all teachers of these schools in the samples of students and teachers, respectively. One of the parents of selected students was

selected for inclusion in the sample of parents. Details about the size of various samples used in this study have been given in Table 3.1

Table 3.1

Details of Samples of Students, Teachers and Parents

Sampling Unit	Mizo Medium Schools	English Medium Schools	Total
Students (Sample - I)	300	300	600
Teachers (Sample - II)	150	150	300
Parents (Sample - III)	300	300	600

3.3   TOOLS EMPLOYED

The data relating to policy issues, enrolment and examination results etc. were collected from the secondary sources, thus no specific tool was required to collect such data. However, the primary data relating to other variables were collected with the help of the following tools:

3.3.1.   Perceptions on Issues Relating to Medium of Instruction (Developed by the scholar)

3.3.2   Socio-economic Status Scale by Dr. Lallianzuali Fanai (1999)

3.3.3   Teacher's Profile Sheet for Mizo Medium Elementary School (Developed by the scholar)

3.3.4   Teacher's Profile Sheet for English Medium Elementary School(Developed by the scholar)

3.3.5   Verbal Group Test of Intelligence by Dr. Lalhmingliana

3.3.6   Verbal Test of Creative Thinking by Baqer Mehdi

3.3.7   Tests for Understanding of Basic Concepts Relating to Science (Developed by the scholar)

3.3.8   Tests for Understanding of Basic Concepts Relating to Mathematics (Developed by the scholar)

3.3.9   Tests for Understanding of Basic Concepts Relating to Social Science (Developed by the scholar)

3.3.1 Perceptions on Issues Relating to Medium of Instruction

Perception, according to William James is "The consciousness of particular material things present to sense". Hence, in the present study perception is understood as an act of perceiving; a way of understanding a particular issue.

As there was no tool available on perceptions which was relevant for the present study, the researcher after studying related literatures and informal interviews with many stakeholders developed the perceptions. The final draft of the perceptions was chalked out after many deliberations with the supervisor. The perceptions consisting of 12 items was used for collecting data relating to the perceptions of stakeholders i.e., students, parents and teachers towards medium of instruction in elementary school.

The Perceptions on Issues Relating to Medium of Instruction was prepared in Mizo as all respondents i.e., the samples of the populations were Mizos. A copy of the English version of the Perceptions on Issues Relating to Medium of Instruction is given in the appendix III.

3.3.2 Socio-Economic Status Scale (1999)

According to American Psychological Association, "Socio-economic status was the social standing or class of an individual or group. It is often measured as a combination of education, income and occupation". In the present study a student's socio-economic status is studied by a combination of such variables like parental education, income and occupation.

Socio-economic Status Scale, developed in 1999 by Dr. Lallianzuali Fanai was adopted for collecting data to prepare the profile of students of Mizo and English medium elementary schools in terms of their socio-economic status and for the educational background of parents of Mizo and English medium elementary schools. The scale had 9 general questions which were further broken up into different items on variables like family's educational background, occupation, income, assets, housing, religious and societal responsibility held, etc. Since the scale was in English, the researcher translated the scale into Mizo with slight alteration in few items to meet the present condition. A copy of the modified version of the Socio-economic status scale is given in the appendix IV.

3.3.3   Verbal Group Test of Intelligence (2006)

It is acknowledged by all teachers that one of the most important single variable which affects schooling is the quality of behaviour called intelligence. Psychologists have been interpreting the term in different ways and are in disagreement on the meaning of the term intelligence. However, a comprehensive definition is given by D.Weschler that says, 'Intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with his environment". (S.S. Chauhan, 1996)

Verbal Group Test of Intelligence by Dr. Lalhmingliana was adopted for the preparation of profile of students of Mizo and English medium elementary schools in terms of their intelligence. The test was meant for 13 - 16+ years, or students of Class-VIII to Class-X and was prepared in Mizo. There were 10 sub-tests in the booklet within which there were 100 items altogether, with a stipulated time given for each sub-test. A copy of the test booklet of Verbal Group test of Intelligence is given in the appendix V.

3.3.4   Verbal test of Creative Thinking

According to M.J. Levin (1978) as quoted by S.K. Mangal (2002), "Creativity is the ability to discover new solutions to problems or to produce new ideas, inventions or works of arts. It is a special form of thinking, a way of viewing the world and interacting with it in a manner different from that of the general population".

For studying and comparing the verbal creativity of Mizo and English medium students, Verbal Test of Creativity Thinking by Baqer Mehdi was adopted. There were 4 activities within which there were 10 items, with a stipulated time given to finish each activity. This booklet was prepared in Hindi and English, and the researcher translated it into Mizo where the English translation was also retained in the booklet to enhance better understanding of the items in the booklet. The Verbal Test of Creativity Thinking was conducted with the Mizo and English version booklet. A copy of the Mizo and English Verbal Test of Creative Thinking is given in the appendix VI.

3.3.5 Teacher's Profile Sheet for Mizo Medium Elementary School

As there was no relevant 'teachers profile sheet' available for the present study, the researcher developed a Teachers' Profile Sheet for Mizo Medium Elementary School Teachers. The profile sheet had 7 variables for data on status of training, age, educational qualification, teaching experience, salary, nature of appointment, and product of which medium of school. A copy of the Teacher's profile sheet for Mizo medium elementary school teachers is given in the appendix VII.

3.3.6 Teacher's Profile Sheet for English Medium Elementary School

The researcher also developed a Teachers' Profile Sheet for English Medium Elementary School Teachers. The sheet had variables for data on status of training, Age, Educational qualification, teaching experience, salary, nature of appointment, product of which medium of school, and fluency of teaching in English. The only difference of this sheet from the Teachers' Profile Sheet of Mizo Medium Elementary School Teachers was the addition of one item on fluency of teaching in English. A copy of the Teacher's profile Sheet for English medium elementary school teachers is given in the appendix VIII.

3.3.7 Tests for Understanding of Basic Concepts Relating to Science

Science as a subject generally denotes a very wide range of activities; it involves systematic investigation and evidence of the social as well as natural worlds. Merriam Webster Dictionary defines it as, "knowledge about the natural world that is based on facts learned through experiments and observation".

Since tests for understanding of basic concepts of science, which have direct relations to the present study was not available, the researcher, after careful study of the relevant literature on elementary school science of Mizo and English medium with Bloom's Taxonomy Action Verbs, and in consultation with subject teachers and experts, developed the test in Mizo and English version. Try-out of the tests with 15 questions was conducted on 30 Mizo medium and 40 English medium students. The time taken by each student to finish the test was recorded to find out the average time taken to complete the test. After careful observation of the results of try out, the ambiguous questions were excluded and 10 items were thus sorted out. The reliability of the test consisting of 10 items was determined by conducting test-re-test method to 25 students each from Mizo medium and English medium school with one week

intervals between the first and second test. The correlation of the scores of Test1 and Test2 were calculated and the coefficients of stability of the Tests for Understanding of Basic Concepts Relating to Science was 0.96 in Mizo medium and 0.92 in English medium which may be interpreted as excellent reliability. The final copy of the tests with 10 items, after approval of the supervisor was used to collect data regarding the understanding of students relating to basic concepts of science. The test was conducted whereby students of Mizo medium were made to answer in Mizo and students of English medium were made to answer in English. A copy of the English version of the Tests for understanding basic concepts of science is given in the appendix IX.

3.3.8   Tests for Understanding of Basic Concepts Relating to Mathematics

Mathematics originates from Greek word, *máthēma, meaning* "knowledge, study, and learning". It is the study of topics such as quantity (numbers), structure, space, and change. (Wikipedia)

Here also, tests for understanding of basic concepts of mathematics, which have direct relations to the present study was not available. Thus, the researcher, after careful studying of the relevant literature on elementary school mathematics of Mizo and English medium with Bloom's Taxonomy Action Verbs, and in consultation with related subject teachers and experts, developed the test in Mizo and English version. Try-out of the tests with 15 questions was conducted on 30 Mizo medium and 40 English medium students. The time taken by each student to finish the test was noted to find out the average time taken to complete the test. After careful observation of the results of try out, the ambiguous questions were excluded and 10 items were thus sorted out. The reliability of the test consisting of 10 items was determined by conducting test-re-test method to 25 students each from Mizo medium and English medium school with one week intervals between the first and second test. The correlation of the scores of Test1 and Test2 were calculated and the coefficients of stability of the Tests for Understanding of Basic Concepts Relating to Mathematics was 0.85 in Mizo medium and 0.91 in English medium which may be interpreted as good reliability and excellent reliability respectively. The final copy of the tests with 10 items, after approval of the supervisor was used to collect data regarding the understanding of students relating to basic concepts of science. The test was conducted whereby students of Mizo medium were made to answer in Mizo and

students of English medium were made to answer in English. A copy of the English version of the Tests for understanding basic concepts of science is given in the appendix IX.

3.3.9 Tests for Understanding of Basic Concepts Relating to Social Science

A simple definition of Social science is given by Economic and Social Research Council that says, "Social science is, in its broadest sense, the study of society and the manner in which people behave and influence the world around us".

Again, since tests for understanding of basic concepts relating to social science, which have direct relations to the present study was not available, the researcher, after careful studying of the relevant literatures on social science for elementary schools of both Mizo and English medium with Bloom's Taxonomy Action Verbs, and in consultation with related subject teachers and experts, developed the test in Mizo and English version. Try-out of the tests with 15 questions was conducted to 30 Mizo medium students and 40 English medium students. Here also, the time taken by each student to finish the test was again noted to find out the average time taken to complete the test, and after careful observation, the ambiguous questions were excluded and 10 items were thus sorted out. The reliability of the test consisting of 10 items was determined by conducting test-re-test method to 25 students each from Mizo medium and English medium school with one week intervals between the first and second test. The correlation of the scores of Test1 and Test2 were calculated and the coefficients of stability of the Tests for Understanding of Basic Concepts Relating to Social Science was 0.96 in Mizo medium and 0.93 in English medium which may be interpreted as excellent reliability. The final copy of the tests with 10 items, after approval of the supervisor was used to collect data regarding the understanding of students relating to basic concepts of science. The test was conducted whereby students of Mizo medium were made to answer in Mizo and students of English medium were made to answer in English. A copy of the English version of the Tests for understanding basic concepts of science is given in the appendix IX.

3.4   COLLECTION OF DATA

The present study used both primary and secondary sources of data. While the primary data relating to students (Class-VIII students), teacher's profile, understanding of students relating to the basic concepts of science, mathematics and social studies, and perceptions of various stakeholders towards the medium of instruction were collected by the researcher from the field with the help of the tools described under the tools section, on the other hand the secondary data relating to students enrolment, examination results (Class-VII Board Examination Results), and policy issues were collected from the office records of SDEO of Aizawl and Champhai Districts, Headmasters of different schools of Lunglei Districts, Directorate of School Education and Policy documents etc. The reason for the selection of the year 2006-2009 for analysis of academic achievement of students was due to the fact that 2009 was the last board examination for Middle school leaving certificate and Middle English school leaving certificate examinations held in Mizoram. And due to the unavailability of five consecutive years results of MESLC in Champhai District and Lunglei District, four consecutive years results were collected for analysis.

3.5   TABULATION OF DATA

Tabulation of data for percentages were done manually, while, tabulation of data on statistics like mean, standard deviation and 't-test' were done with the help of SPSS version 15.

3.6   STATISTICAL TREATMENT OF DATA

Keeping in view the objectives of the study and nature of data, descriptive techniques such as percentages, measures of central tendency and standard deviation as well as inferential statistical techniques like 't-test' etc. were applied for the analysis and interpretation of data.

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CHAPTER – IV

POLICY REVIEW ON MEDIUM OF INSTRUCTION

CHAPTER-IV
POLICY REVIEW ON MEDIUM OF INSTRUCTION

4.0   INTRODUCTION

Decisions around language policy and planning are made around the globe every day, both formally by governments and informally by scholars and community leaders. Decisions or principle of actions regarding the use of language or languages adopted by county or concerned authorities may be termed as language policy. These decisions influence the right to use and maintain languages, affect language status, and determine which languages are nurtured. Language policy and planning decisions have a major impact on language vitality and, ultimately, on the rights of the individual. (Center for Applied Linguistics, n.d.)

Language policy is concerned with official efforts to affect the relative status and use of one or more languages (Burnaby, 2015). Language polices specify the usage of language in different domains, like education, administration, media, etc. Language policy can either be a written clause in the Constitution of a country or a language law, or a cabinet document or on administrative regulation.

The following paragraphs dealt broadly with the analysis of the nation's policy on medium of instruction in general and Mizoram in particular, discussed in different sub-heads.

4.1   POLICY OF THE GOVERNMENT OF INDIA ON MEDIUM OF INSTRUCTIONS

After Independence, the concerns of education articulated during the freedom struggle were revisited by the national commissions- the Secondary Education Commission (1952–1953) and the Education Commission (1964–1966). Both commissions elaborated on the themes emerging out of Mahatma Gandhi's educational philosophy in the changed socio-political context with a focus on national development.

Education under the Indian constitutions until 1976 allowed the state government to take decisions on all matters pertaining to school education, including curriculum within their jurisdiction, the centre could only provide guidance to the state on policy issues. It was under such circumstances that the initial attempts of The

National Education policy of 1968 and the curriculum framework designed by NCERT in 1975 were formulated. In 1976, the constitution was amended to include education in the Concurrent list, and for the first time in 1986 the country as a whole had a uniform National Policy on education. The Policy also entrusted NCERT with the responsibility of developing the National Curriculum framework, and reviewing the frameworks at regular Intervals. (NCERT, 2005)

4.1.1 Constitutional Provisions on Language

The founding fathers of the Indian Constitution have truly recognised the multilingual nature of India as reflected in the provisions of the constitution, which in turn, is a significant attribute of national integration. The language policies of India are devised in such a way that multilingualism and heterogeneity of languages are maintained and developed whether major or minor languages. Followings are the relevant provisions relating to language and medium of instructions in the Constitution of India:

Article 29- *Protection of interests of minorities:* points out the fundamental rights of any section of citizens residing anywhere in India to conserve its distinct language, script or culture, and at the same time, protection of its citizen from denied admission into any educational institution maintained by the state or receiving aid out of state funds on grounds only of religion, race, caste, language or any of them.

Article 30- *Right of minorities to establish and administer educational institutions:* protects the rights of all minorities based on religion or language to establish and administer educational institution of their choice. And that the state shall not, in granting aid to educational institutions, discriminate against any educational institution on the ground that it is under the management of a minority, whether based on religion or language.

Article 120- *Language to be used in Parliament:* indicates that business in Parliament shall be transacted in Hindi or in English, and at the same time permits any member who cannot adequately express himself in Hindi or in English to address the House in his mother tongue

Article 210- *Language to be used in the Legislature:* indicates that business in the Legislature of a state shall be transacted in the official language or languages of the state or in Hindi or in English; as well as permission of any member who cannot adequately express himself in any of the languages aforesaid to address the House in

his mother tongue, and Provisions for omissions of the languages aforesaid to some states including Mizoram.

Article 343- *Official language of the Union:* stipulates Hindi in Devanagiri script as the official language of the union. The form of numerals to be used for the official purposes of the union shall be the international form of Indian numerals

Article 344- *Commission and committee of Parliament on official language:* directs the President of India to constitute an official language commission with chairman and members representing the different languages specified in the Eighth Schedule after five years and then to review the progress made by Hindi.

Article 345- *Official language or languages of a state:* empowers the legislature of a state to adopt one or more languages in use in that state or Hindi as the official language or languages for the state.

Article 346- *Official language for communication between one state and another or between a state and the union*: provides that the official language of the union (Hindi or English) shall be the official language for communication between the union and a state and between the states inter se.

Article 347- *Special provision relating to language spoken by a section of the population of a state*: provides the use of any language spoken by a substantial proportion of the population of a state to be recognized by that state, direct that such language shall also be officially recognized throughout that state or any part thereof for such purpose as may specify.

Article 348- *Language to be used in the supreme court and in the high courts and for acts, bills, etc*: stipulates that the language of the supreme court and high court shall be English until the parliament by law otherwise provides. State may, in addition, use their official language(s) for this purpose but the English text will be deemed authoritative.

Article 349- *Special procedure for enactment of certain laws relating to language:* provides that no change of article 348 can be contemplated for 15 years and after that period the President of India must be satisfied of the need for a change after taken into consideration the recommendations of the commission constituted.

Article 350- *Language to be used in representations for redress of grievances:* provide entitlement of every person to submit a representation for the redress of any grievance to any officer or authority of the union or a state in any of the languages used in the union or in the state.

Article 350A- *Facilities for instruction in mother-tongue at primary stage*: inserted by the 7th amendment provides for local authorities in every state endeavouring to extent adequate facilities for instruction in the mother tongue at the primary stage of education to children belonging to linguistic minority groups and for the president issuing necessary direction to any state.

Article 350B- *Special officer for linguistic minorities*: provides for a special officer for linguistic minorities to be appointed by the President to investigate all matters relating to the safeguards provided for linguistic minorities under this Constitution

Article 351- *Directive for development of the Hindi language*: points out the duty of the union the promotion and spread of the Hindi language; its development and enrichment.

Article 394A- *Authoritative text in the Hindi language:* inserted by the 56th Amendment act provided for the translation of the Constitution in the Hindi language, with such modifications as may be necessary to bring it in conformity with the language, style and terminology adopted in the authoritative texts of Central Acts in the Hindi language.

4.1.2 Recommendations of Various Commissions after Independence on Medium of Instructions/ Languages in Education

The government of free India right after independence took certain measures and initiatives for the development of education at all stages and in all spheres including the appointment of various commissions in the field of education. Among them, few prominent commissions and their recommendations with respect to language or medium of instructions may be given in the following lines:

1. *University Education commission (1948-49)*

On the advice of the Inter-University Board and the Central Advisory Board of Education, the government of India appointed the University Education Commission under the chairmanship of Dr. S. Radhakrishnan, former Vice- Chancellor of Banaras University who rose to become the second President of India. The Commission was inaugurated on December 6, 1948 and submitted its report in August 1949. With respect to medium of instruction, the Commission recommended the followings:

a) Development of the federal language through the assimilation of words from various sources and the retention of words which have already entered into Indian languages from different sources.

b) Adoption of international, technical and scientific terminology, and the borrowed words to be properly assimilated.

c) Replacement of English as early as practicable by an Indian language for the medium of instruction for higher education. Pupils at the higher secondary and university stages be made conversant with three languages – the regional languages, the federal language and English. For the federal language one script, Devanagiri script be employed and some of its defects be removed.

d) Study of English in high schools and in universities to keep in touch with the living steam of ever-growing knowledge.

2. *Secondary Education Commission (1952-53)*

The Central Advisory Board of Education in its meeting held in 1949 and 1951 recommended the appointment of a commission for secondary education. The government of India accordingly appointed the Secondary Education Commission on 23rd September 1952 with Dr. A. Lakshmanaswami Mudaliar, Vice-Chancellor, Madras University as its chairman. The Commission submitted its report in June, 1953. The Commission discussed the problem of languages in India at the secondary stage and made the following recommendations:

a) The mother tongue or the regional languages should be the medium of instruction throughout the secondary stage, subject to the provision that for linguistic minorities special facilities should be made available on the lines suggested by the Central Advisory Board of Education

b) During the middle school stage, every child should be taught at least two languages. English and Hindi should be introduced at the junior basic stage subject to the principle that no two languages should be introduced in the same year.

c) At the high and higher secondary stage at least two languages should be studied, one of them being the mother tongue or the regional language.

3. *The Official Language Bill, 1963*

The Official Language Bill was introduced in the Parliament on 13th April 1963. The need for the introduction of the bill seems to have arisen due to two main reasons; firstly, because Hindi had not grown sufficiently during the last thirteen years to be able to replace English after 1965 and secondly, because the existent emotional climate in the country was far from favourable to any such change-over in the near future. The bill provided that English should continue to be used as associate federal language after 1965 and that ten years later a parliamentary committee was to be appointed to review the progress made in Hindi. (Sharma & Sharma, 1996)

4. *The Education Commission (1964-66)*

To advise the government on the national pattern of education and on the general principles and policies for the development of education at all stages and in all aspects, the government appointed the education commission by a resolution dated 14th July 1964 of India. The Commission had Dr. D.S. Kothari as its chairman, began its tasks on 2nd October, 1964, and submitted its report on June 29, 1966. The recommendations made by the commission regarding languages in education are as follows:

a) A modified or graduated three-language formula to include:

- The mother tongue or the regional language;
- The official language of the Union or the associate official language of the union so long as it exists;
- A modern Indian or foreign language not covered under the previous two and other than that used as the medium of instruction.

b) Study of Hindi

Importance of the study of Hindi and the necessity of organising a nationwide programme for promoting such study on a voluntary basis was stressed. A working knowledge of Hindi as a channel of internal communication in all parts of India was necessary, and the cause of Hindi and also of national integration, would be better served if its study beyond a certain point was not forced on unwilling sections of the people. However, more intensive study of the language would depend on adequate motivation.

c) Study of English

As English would, for a long time to come, continued to be needed as a 'library language in the field of higher education, a strong foundation in the language would have to be laid at the school stage. The commission recommended, teaching of English from class V, but not before class VIII in rural areas. The commission believed that an adequate command over the mother-tongue should be acquired before the learning of a foreign language like English was begun; therefore, recommended that the study of English as a foreign language, except on an experimental basis in certain schools, should not begin before class V.

d) Study of classical languages

The commission recognised the importance of the study of classical languages but did not agree with the proposal to include Sanskrit or other classical languages in the three language formula where study of the modern Indian languages had to be restricted to the formula. Classical languages could be provided in the school curriculum on an optional basis from class VIII onwards.

4.1.3   National Policy on Education 1968

The first National Policy on Education (NPE) was formulated by the Government of India in 1968, based on the recommendations of the Indian Education Commission (1964-66), also known as the Kothari Commission. Apart from the goal of universalization of education as envisaged in the Constitution, with respect to medium of education, the 1968 NPE dealt with the following:

Regional Languages – The policy recognised the development of Indian languages and literature as indispensable element for educational and cultural development. And stated that regional languages were already in use as media of education at the primary and secondary stages

Three-Language Formula – Adoption and vigorous implementation of the three-language formula which included the study of a modern Indian language, preferably one of the southern languages, apart from Hindi and English in the Hindi-speaking states, and of Hindi along with the regional language and English in the non-Hindi-speaking states. Suitable courses in Hindi and/ or English should also be available in universities and colleges with a view to improving the proficiency of students in these languages up to the prescribed university standards.

Hindi – Promotion and development of Hindi as provided for in Article 351 of the Constitution, as a medium of expression for all the elements of the composite culture of India.

Sanskrit – In recognising the special importance of Sanskrit to the growth and development of Indian languages and its unique contribution to the cultural unity of the country, facilities for its teaching at the school and university stages should be offered on a more liberal scale was considered.

International Languages – Strengthening of the study of English and other international languages for the purpose of not only keeping up with the growth of world knowledge especially in science and technology but also in making a significant contribution to it.

4.1.4   National Policy on Education 1986

The government of India introduced a new National Policy on Education in May, 1986. The new policy called for "special emphasis on the removal of disparities and to equalise educational opportunity," especially for Indian women, Scheduled Tribes (ST) and the Scheduled Caste (SC) communities.

The National Policy on Education, 1986 had reiterated in respect of languages the policy elaborated in the National Policy on Education, 1968. Briefly, the policy emphasised the adoption of regional languages as the media of instruction at the university stage; vigorous effort at implementation of the three language- formula; improvement in the linguistic competencies of students at different stages of education; provision of facilities for the study of English and other foreign languages; development of Hindi as the link language, as provided for in Article 351 of the Constitution; teaching of Sanskrit at the university stage as part of certain courses like Indology, Indian History, Archaeology etc.; serious effort at translation of books from one language to the other; and the preparation of bilingual and multi-lingual dictionaries. (Govt. of India: MHRD, 1992)

4.1.5   National Policy on Education and Programme of Action 1992

The National Policy on Education 1986 had stipulated that the implementation of the policy would be reviewed every five years. Accordingly, the National Policy on Education was revised and modified in 1992 and the programme of action was also formulated for its implementation**.**

The aim of education of the revised National Policy on Education 1992 is to keep intact India's long accepted values of secularism, socialism, democracy and professional ethics. As education was fundamental to all round development of a person, the NPE1992 promised the efforts to develop a common school system through 10+2+3 structure and hence accepted the +2 as part of school education.

The decisions about language policy and the development of languages were taken at various levels-central and state governments, universities, boards of secondary/school education etc. Consequently, there was no uniformity on the language policy followed in education. Implementation of the policies had also not been effective for want of regular monitoring. Although the Three Language Formula was arrived at through consensus and adopted in the context of social and political considerations, in actual implementation substantial modifications had been made in it. In recent years, the effort of the states to determine the relative place of various languages in education had become a matter of considerable argument and agitation. In view of these rather unpleasant developments, it would seem desirable to (a) undertake a critical review of the language policies being adopted at various levels, (b) suggest a policy which would bring some uniformity about the place of languages in education; and (c) identify directions on which language development should be undertaken. For this purpose, it was suggested that a Standing Committee of the Central Advisory Board of Education may be constituted. The Bureau of languages of the Ministry would function as its secretariat. (Govt. of India: MHRD, 1992)

4.1.6   National Policy on Education 2016

The Committee for Evolution of the New Education Policy was constituted by Ministry of Human Resource Development (MHRD) on 24th November 2015 and entrusted with the task of formulating a Draft National Education Policy. The Committee commenced work in the first week of November 2015. Prior to the constitution of the Committee, the MHRD had embarked on a detailed process of initiating extensive consultations with various stakeholders in the country interested in the field of education, to elicit views on the reforms in the education sector, and calling for detailed recommendations in this regard.

The 2016 National Policy on Education, which was being formulated nearly three decades since the last policy, recognized the criticality of education as the most important vehicle for social, economic and political transformation. It reiterated the

role of education in inculcating values, and to provide skills and competencies for the citizens, and in enabling him to contribute to the nation's well-being; strengthens democracy by empowering citizens; acts as an integrative force in society, and fosters social cohesion and national identity. The policy enunciated that while 'equity' and 'access' had been rightly stressed in the past as the guiding principles in the education field, the issue of quality had hitherto effectively been relegated to the background. It had now become an imperative necessity to lay major emphasis on improvement of quality across the board, without compromising on equity and access.

With respect to medium of instructions, the committee recommended that the medium of instruction up to class V must be the mother tongue or regional language. The Three Language Formula (TLF) had been a part of the education policy of the country right from 1968 and continued through 1986/92. The committee learnt during its interactions that the Three Language Formula had not been uniformly implemented in many states. With the passage of time the states had responded to local aspirations and preferences voiced by parents who would like their children to possess language communication skills that can facilitate intra-state, intra-regional as well as global mobility. Keeping this in mind, the committee recommended that as long as the states ensured that the mother tongue or the regional language formed the basis of primary education up to class V (a fact underscored by the earlier two policies) the choice of the second (at primary level) and third language (at secondary level) should be left to individual states to decide. (Govt. of India: MHRD, 2016)

4.1.7   The Three Language Formula

The first recommendation for a three-language policy was made by the University Education Commission in 1948– 1949, while accepting that Hindi was itself a minority language, the commission still foresaw Hindi as eventually replacing English as the means by which every province may participate in federal functions. The Central Advisory Board of Education in 1956 examined at length the complex problem of the teaching of the languages in relation to the needs of the country and the requirements of the constitution. It devised a formula known as the 'Three Language Formula' which was somewhat simplified and approved by the Conference of Chief Ministers held in 1961. The Education Commission of 1964– 1966 recommended a modified or graduated three-language formula. Following some debate, the three-language formula was adopted by the Parliament of India in

1968. The 1986 National Policy on Education reiterated the 1968 formula. The three-language formula formulated in 1968 by the Ministry of Education of the Government of India in consultation with the states enunciated in the 1968 National Policy Resolution provided for the study of "Hindi, English and modern Indian language (preferably one of the southern languages) in the Hindi speaking states and Hindi, English and the regional language in the non-Hindi speaking states". The formula was formulated in response to demands from non-Hindi speaking states of the south. According to this formula; every child had to learn the following:

1. The mother tongue or the regional language;

2. The official language of the union or the associate official language of the union as long as it exists (official language of the union is Hindi and its associate official language is English);

3. Modern Indian language or a foreign language, not covered under (1) & (2) above and other than that used as the medium of instruction.

The Three Language formula was expected to be adopted by all the state governments and vigorously implemented at the secondary stage. It was implied from the above formula that in the Hindi speaking states at the secondary stage each child had to learn a total of 3 languages, viz., Hindi, English and a modern Indian language preferably one of the southern languages. Similarly, in the non-Hindi areas each child had to learn again 3 languages in a different combination, viz., the regional language, English and Hindi. Also, as per this formula the mother tongue or the regional language became not only the first language but also the medium of instruction (Vishwanathan (2001) as quoted by Ratti, 2015).

In consequence of the recommendation of I.K. Gujral Committee for promotion of Urdu by the government in 1972 and its report in 1975 which included the use of Urdu for official purposes and as a medium of instruction, a new committee of experts was launched in 1990 under the chairmanship of Ali Sardar Jafri. The committee recommended modifying the three-language formula to "In Hindi speaking States:

a) Hindi (with Sanskrit as part of the composite course);

b) Urdu or any other modern Indian language and

c) English or any other modern European language.

In non-Hindi Speaking States:
   a) The regional language;
   b) Hindi;
   c) Urdu or any other modern Indian language excluding (a) and (b); and
   d) English or any other modern European language"

If the multilingual characteristics of the classrooms across India was considered, one can easily understand the importance of MLE in the development of the linguistic and social competency required by every child to avail the equal education opportunities at every stage of education. The government should try to formulate such a policy that is not an outcome of some political strategy to pacify the language politics of few "dominant people", but the policy should have some serious implications for how to fulfil the needs and requirements of a child according to her/his social, cultural and linguistic practices. (Ratti, 2015)

4.1.8   National Curriculum Framework 2005

Yash Pal Committee Report, 'Learning without Burden' (1993) observed that learning had become a source of burden and stress on children and their parents. Considering these observations, Executive Committee of NCERT decided at its meeting of July 14, 2004, to revise the National Curriculum Framework. The process of development of NCF was initiated in November, 2004 by setting up various structures like National Steering Committee Chaired by Prof. Yash Pal and twenty-one National Focus Groups on themes of curricular areas, systemic reforms and national concerns. Wide ranging deliberations and inputs from multiple sources involving different levels of stakeholders helped in shaping the draft of NCF. The draft NCF was translated into 22 languages listed in the VIII Schedule of the Constitution. The translated versions were widely disseminated and consultations with stakeholders at district and local level helped in developing the final draft. The NCF was approved by Central Advisory Board on Education in September, 2005.

The NCERT gave a grant of Rs.10 lakhs to each state to promote NCF in the language of the state and to compare its current syllabus with the syllabus proposed, so that a plan for future reforms could be made. Several states had taken up this challenge. This exercise was being carried out with the involvement of State Councils

of Educational Research and Training (SCERT) and District Institutes of Education and Training (DIET).

With respect to medium of instruction, chapter three of the NCF, Curricular areas, school stages and assessment, enunciated that the three Language Formula needed to be implemented in its spirit, promoting multilingual communicative abilities for a multilingual country. Home language or mother tongue should be the medium of learning in school. Languages were a medium through which most knowledge was constructed, and hence they were closely tied to the thoughts and identity of the individual. To deny or wipe out a child's mother tongue(s) would be to interfere with the sense of self. Effective understanding and use of language(s) enabled the child to make connection between ideas, people and things, and to relate to the world around. If a school did not have provisions for teaching in the child's home language(s) at the higher levels, primary school education must still be covered through the home language(s). (NCERT, 2005)

4.1.9 National Knowledge Commission (NKC) 2005-2008

The National Knowledge Commission (NKC) was constituted on 13th June 2005 with a time-frame of three years, from 2nd October 2005 to 2nd October 2008. As a high-level advisory body to the Prime Minister of India, the NKC was given a mandate to guide policy and direct reforms, focusing on certain key areas such as education, science and technology, e-governance, etc. Easy access to knowledge, creation and preservation of knowledge systems, dissemination of knowledge and better knowledge services were core concerns of the commission. The National Knowledge Commission submitted around 300 recommendations on 27 focus areas.

The recommendations of the National Knowledge Commission on Languages were expressed in the form of a letter to the Prime Minister. The commission reflected on the significance of language, not only as a medium of instruction or a means of communication but also as a determinant of access; conclusion that an understanding of, and a command over the English language, was perhaps the most important determinant of access to higher education, employment possibilities and social opportunities. (Pitroda, 2008)

The National Knowledge Commission recommends fundamental change that sought to introduce, nationwide, the teaching of English as a language should be introduced, along with the first language (either the mother-tongue or the regional

language) of the child, starting from Class I in school. Further, the commission suggested various means and measure to bring about fundamental change that would seek to introduce, nationwide, the teaching of English which in turn would lead to multi-medium schools in the country and help reduced the divide between English medium schools and regional languages medium schools. Besides certain strategies for effective teacher training programme, National Testing Service (NTS) for certification of language competence as well as recruitment of language teachers was also suggested. (Govt. of India: NKC, 2008)

4.1.10 Right of Children to Free and Compulsory Education (RTE) Act, 2009

The Constitution (Eighty-sixth Amendment) Act, 2002 inserted Article 21-A in the Constitution of India to provide free and compulsory education of all children in the age group of six to fourteen years as a fundamental right in such a manner as the state may, by law, determine. The Right of Children to Free and Compulsory Education (RTE) Act, 2009, which represented the consequential legislation envisaged under Article 21-A, meant that every child had a right to full time elementary education of satisfactory and equitable quality in a formal school which satisfied certain essential norms and standards.

Article 21- A and the RTE Act came into effect on 1 April 2010. The title of the RTE Act incorporated the words 'free and compulsory'. By 'Free education' it was meant that no child, other than a child who had been admitted by his or her parents to a school which was not supported by the appropriate government, shall be liable to pay any kind of fee or charges or expenses which may prevent him or her from pursuing and completing elementary education. 'Compulsory education' cast an obligation on the appropriate government and local authorities to provide and ensure admission, attendance and completion of elementary education by all children in the 6-14 age group. With this, India had moved forward to a rights based framework that cast a legal obligation on the central and state governments to implement this fundamental child right as enshrined in the Article 21A of the Constitution, in accordance with the provisions of the RTE Act.(Govt. of India, 2016)

The Central Government had also notified the National Council of Educational Research and Training (NCERT) as the academic authority for preparing the framework of national curriculum under section 7(6) of the RTE Act. The National Curriculum Framework (NCF) 2005 prepared by NCERT had been accepted as the

curriculum framework till further directions in the matter. Therefore, in implementing the provisions of section 29, the academic authority notified by the appropriate governments shall ensure adherence to child centred principles of NCF 2005.

Section 29(1) of the RTE Act provided that the curriculum and evaluation procedure for elementary education shall be laid down by an academic authority specified by the appropriate government. Section 29(2) laid down the factors which needed to be taken into consideration by the academic authority notified by the states for preparing the curriculum and evaluation procedure, Section 29(2) (f) of The Right of Children to Free and Compulsory Education (RTE) Act, 2009 stated that "medium of instructions shall, as far as practicable, be in child's mother tongue". With respect to medium of instruction, The RTE 2009 guidelines stated that Textbooks must reflect the principles of child centred pedagogy as enunciated in: (i) section 29(2) (e) *learning through activities ,discovery and exploration in a child friendly and child centred manner,* and (ii) section 29(2) (g) *making the child free of fear, trauma and anxiety and helping the child to express views freely, and 29(d)* Extensive research pointed to the fact that in a multilingual country like India, the child's 'home' language was often different from the 'standard' language in textbooks. This imposed enormous learning burden on the child, and was perhaps one of the chief reasons of low achievement in school subjects. The difference between the 'home' language and 'textbook' language not only affected the language learning in school, but also subjects like mathematics, environment studies, etc. because these subjects also needed a language for transaction. That was the reason why the RTE Act stipulates that the mother tongue should be used as far as practicable. Thus, efforts to incorporate well known methods of bridging between the child's 'home' languages with the 'standard' classroom language need to be given utmost attention. (Govt. of India: RTE)

4.2 EXISTING POLICY OF THE GOVERNMENT OF MIZORAM ON MEDIUM OF INSTRUCTIONS

The government of Mizoram had been taking certain steps and initiatives to raise the standards and develop education at all levels in Mizoram. Analyses of the existing policy of the government of Mizoram on medium of instructions were given as follows:

4.2.1 The Mizoram Education Reforms Commission 2010

The Mizoram Education Reforms commission was set up by the government of Mizoram on 9th June 2009 with eminent national and state educationists as members to recommend ways and means to raise standards of education and improved its quality covering all sectors of education right from the pre-school level to higher and professional education. The Report had 15 chapters and a set of 116 recommendations. The Commission had Prof. A.K. Sharma as chairman, Prof. S.Homchaudhuri as member Secretary, Prof. Ved Prakash, Vice chairman, University grants Commission (UGC), Prof. G.L.Arora, Dr. L.N.Tluanga, Rev. Dr. K.Thanzauva, Rev. Chuauthuama, Prof A.N.Rai, Vice Chancellor Mizoram University, Pu K.Riachho, Pi Esther Lalruatkimi and Dr. Lalrindiki Fanai as members.

The Commission's recommendation with respect to language and medium of instructions were provided under chapter–6 of the report, School Curriculum: Concerns and Imperatives, which were as follows:

Language Laboratory: language laboratories to facilitate teaching of English may be set up to cater to development of effective communication skills, especially when the professional competency of teachers teaching English is not of the appropriate quality. These laboratories may respond to the needs of a cluster of schools and may be located appropriately.

Promotion of Hindi: In keeping with the national pattern, Hindi should be made compulsory up to class X and there should also be a provision for teaching Hindi as an elective subject at higher secondary stage. The facility of teaching Hindi should be made available in at least 50% higher secondary schools and there should be provision for stipend for Mizo students who offer Hindi as an elective subject at the higher secondary stage. The post of Hindi teachers be created in all schools at the rate of one teacher for 5-6 sections, and private schools, both aided and unaided, be required to recruit at least one properly qualified teachers of Hindi.

Medium of Instruction: Elementary school should be imparted in the child's mother tongue. English should be adopted as the medium of instruction from class VI onwards. English should be adopted as the medium of instruction from class VI onwards in those schools that have adequate number of teachers, capable of teaching in English. In schools where there is concentration of minority community children, mother tongue of the child should be used as medium of instruction in class I and II. (Govt. of Mizoram, 2010)

4.2.2   Education Policy of Mizoram 2013

In pursuance of the decisions of the meeting of the council of ministers, the government of Mizoram notified 'The Education Policy of Mizoram 2013' on March 15, 2013. The government had formulated 10 points as Mizoram education policy for implementation and achievement with its available resources.

With regard to medium of instruction, the third point, 'learning with understanding and comprehension' of the Education Policy of Mizoram 2013 has reflected that the first choice for medium of instruction will undoubtedly be the home language/ mother tongue/ first language of the child at the first years of schooling. The policy further stated that learning in one's mother tongue at primary level of elementary education and in English from the upper primary, secondary and tertiary levels would enhance the quality of education in the state. (Govt. of Mizoram, 2013)

A study of the recommendations of the Mizoram Education reforms commission 2010 and the Mizoram education policy 2013 had clearly pointed out that the government policy on medium of instruction is in line with the three language formula; having recognised the importance of mother-tongue medium of instruction, promoting multilingualism with recommendations for proficiency of English and Hindi languages.

4.2.3   Government of Mizoram Notification on Medium of Instruction 2016

The government of Mizoram had issued a notification on July 27, 2016 for the use of English as a medium of instruction from class -VI onwards in all the government schools and government-aided schools commencing from the academic session of 2017-2018.

The government's notification can be seen as a determined effort on the part of the government to impose English at the cost of mother- tongue medium of instruction in Mizoram as it could undoubtedly be inferred that adequate numbers of teachers, capable of teaching in English would not be available in the present condition. (Government Notification No. B.12011/1/2012-EDN(SC))

A copy of Government of Mizoram Notification on medium of instruction 2016 is given in Appendix XII.

4.3   CONCLUSIONS

A well-defined language policy is necessary to ensure quality education. Chances of misinterpretation or misconception of the policy on the part of the users or in the process of implementing the policy must be avoided at all cost as they can be extremely damaging and could threaten the very purpose of education. The development of a proper language policy can also assist materially in social and national integration. Of the many problems which the country had faced since independence, the language question had been one of the most complex and intractable, and it still continued to be so. Its early and satisfactory solution was imperative for a variety of reasons- educational, cultural and political (Education Commission 1964-66). After a keen study into the existing language policies of India in general, we may conclude that promotion and maintenance of the linguistic diversity and multilingualism of the nation had always been the focus and the goal. The importance of mother tongue medium of instruction also had always been realized and promoted. However, the drawbacks or problems experienced with respect to languages in education seemed to lie not in the theory of the policies but in the transaction or the implementation of the policies.

When examining the condition of Mizoram, multilingualism and linguistic diversity was never an issue here, although there were very few linguistically minor groups where Hindi, Bengali, Nepali, and Manipuri medium of instructions were available for them. Still majority of the population can interact successfully in Mizo. The real problem seemed to lie in the misunderstanding of the purpose and outcome of education. Hence, the recommendations and provisions handed down from various commissions, the three language formula, or the National Curriculum Framework 2005 or even the Mizoram Education Policy cannot be implemented as they were devised. Many people could not see beyond English and English proficiency alone in education. This may be the major factor that impelled the government not to adhere to the notion of mother tongue medium of instruction as being the best medium for the education of children. This also clearly reflected the necessity of awareness on the part of not only the common mass, but also the bureaucrats, of the consequences that can be caused by improper implementations or unmeticulous policy transaction.

An analysis of the recommendations of the Mizoram Education reforms commission 2010 and the Mizoram education policy 2013 had clearly pointed out that the government policy on medium of instruction was in line with the three language

formula; having recognised the importance of mother-tongue medium of instruction, promoting multilingualism with recommendations for proficiency of English and Hindi languages. However, a very contradicting phenomenon could be observed when looking into the Govt. of Mizoram Notification on medium of instruction 2016 as the government notified the use of English as a medium of Instruction from class -VI onwards in all the government schools and government-aided schools commencing from the academic session of 2017-2018. Important questions evolved with these decisions are:

- Has the government felt all the schools in Mizoram to be equipped with adequate number of teachers capable of teaching in English?
- Are conditions of elementary schools in rural areas considered when making such drastic changes?
- Are opinions of stakeholders i.e. students, teachers and parents, taken in the decision making?

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CHAPTER – V

ANALYSIS AND INTERPRETATION

OF DATA

CHAPTER – V
ANALYSIS AND INTERPRETATION OF DATA

5.0   INTRODUCTION

An attempt has been made in the previous four chapters, an introduction into the concept and issues on medium of instructions, related studies done on medium of instructions in India and abroad, the growth and changes in medium of instruction along with development of school education in Mizoram; and the review of various policies and recommendations made in the country and in the state of Mizoram. The insights received from the theoretical studies have been applied here to analyse the conditions of medium of instructions in Mizoram. For easy perusal, the analysis of data is further divided into sub-heads.

5.1   ANALYSIS OF DATA ON ENROLMENT OF STUDENTS IN MIZO AND ENGLISH MEDIUM ELEMENTARY SCHOOLS

Figure 5.1
Five years enrolment of students in Mizo and English medium elementary schools in Mizoram
(Year 2011 – 2015)
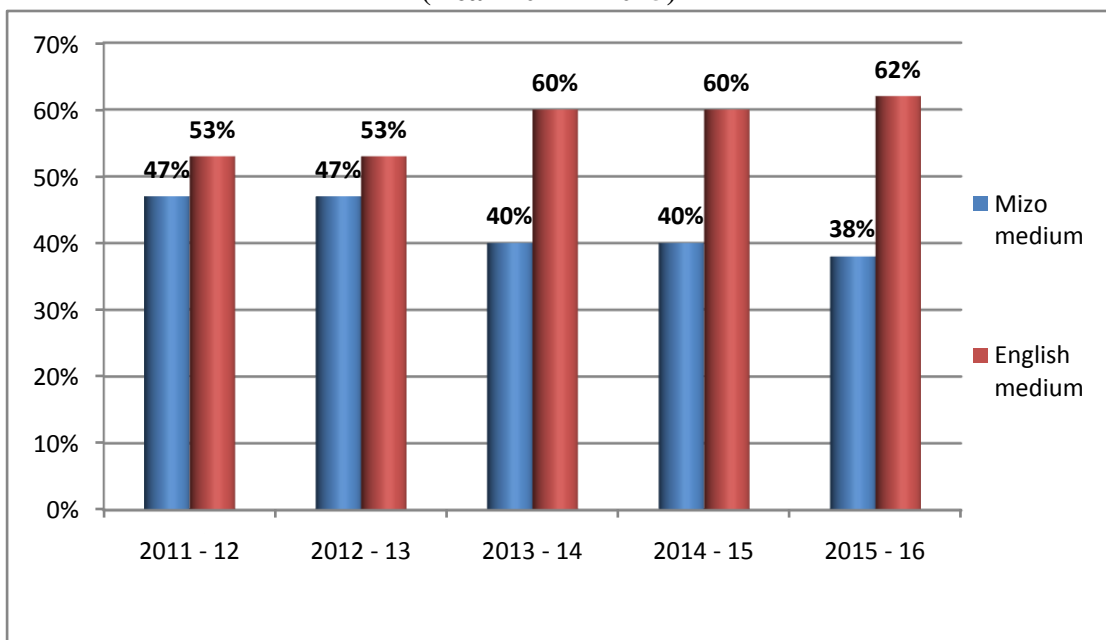
Table 5.1
District-wise number and percentage of five years enrolment of students in Mizo and English medium
elementary schools in Mizoram
(Year 2011 – 2015)

District	2011 – 2012		2012 – 2013		2013 - 2014		2014 - 2015		2015 - 2016	
	Mizo medium	English medium	Mizo medium	English Medium	Mizo medium	English medium	Mizo medium	English medium	Mizo medium	English medium
Aizawl	23134 (29%)	55795 (71%)	24010 (30%)	56224 (70%)	10675 (19%)	44652 (81%)	18469 (28%)	47082 (72%)	17900 (27%)	47779 (73%)
Lunglei	22973 (62%)	14294 (38%)	20618 (64%)	11849 (36%)	17113 (56%)	13215 (44%)	16104 (55%)	13037 (45%)	15788 (55%)	13002 (45%)
Champhai	18000 (79%)	4830 (21%)	19782 (61%)	12394 (39%)	15438 (58%)	11156 (42%)	13481 (52%)	12253 (48%)	12845 (50%)	12928 (50%)
Kolasib	10612 (74%)	3639 (26%)	13554 (60%)	9144 (40%)	9604 (56%)	7455 (44%)	9906 (51%)	9345 (49%)	9076 (48%)	9912 (52%)
Serchhip	6470 (71%)	2610 (29%)	13225 (72%)	5178 (28%)	5720 (48%)	6082 (52%)	5050 (44%)	6452 (56%)	4655 (41%)	6822 (59%)
Mamit	21390 (61%)	13860 (39%)	22363 (79%)	5963 (21%)	11968 (67%)	5885 (33%)	11284 (58%)	8125 (42%)	11398 (56%)	8832 (44%)
Saiha	100 (1%)	14550 (99%)	100 (1%)	14639 (99%)	59 (0%)	13463 (100%)	72 (1%)	12825 (99%)	74 (1%)	12461 (99%)
Lawngtlai	9352 (35%)	16993 (65%)	9622 (31%)	21349 (69%)	9174 (31%)	19951 (69%)	9101 (34%)	17418 (66%)	8228 (31%)	18654 (69%)
Total	112031 (47%)	126571 (53%)	123274 (47%)	136740 (53%)	79751 (40%)	121859 (60%)	83467 (40%)	126537 (60%)	79964 (38%)	130390 (62%)

The analysis of data which was collected from Department of School Education, Government of Mizoram on five years enrolment of students in Mizo medium and English medium elementary school is given in the form of table and graph. As per figure 5.1 and table 5.1, it is found that:

In the year 2011–12 there were 47% of students belonging to Mizo medium elementary schools in Mizoram. While in English medium elementary schools, enrolments of students were slightly higher as there were 53% of students enrolled.

Again, in the year 2012–13 there were 47% of students in Mizo medium elementary schools while there were 53% of students in English medium elementary schools.

The year 2013 – 14 showed a drastic decline of enrolment in Mizo medium elementary schools. There were 40% of students in Mizo medium elementary schools while English medium elementary schools had 60% of students.

In the year 2014 – 15 there were 40% of students in Mizo medium elementary schools whereas English medium elementary schools had 60% of students.

In the year 2015 – 16 again, enrolment of students in Mizo medium elementary school was 38% while in English medium it was 62%.

A perusal of the given tables and figures showed that enrolment of students in Mizo medium declined while enrolment in English medium school increased.

5.2 ANALYSIS OF PROFILE OF MIZO MEDIUM AND ENGLISH MEDIUM ELEMENTARY SCHOOL STUDENTS

The analysis of data collected for comparison of profile of students in Mizo medium and English medium elementary schools is done by using Socio-Economic Status Scale, Verbal Group Test of Intelligence Test and Verbal Test of Creative Thinking and is given under different sub- heads.

5.2.1 Comparison of Profile of Students of Mizo Medium and English Medium Elementary Schools in Terms of Socio-Economic Status

Table 5.2
Profile of students of Mizo and English medium elementary schools in Mizoram in terms of Socio-Economic status

Category Of Students	Mean	SD	SE of Difference	t-value
Mizo Medium (N=300)	28.41	11.36	0.96	12.07
English Medium (N=300)	40.08	12.31		

As seen from table 5.2, the mean score of the socio-economic background of students of Mizo medium and English medium elementary schools when compared with the help of t-test is found to be significant at 0.01 level. This indicates that the socio-economic background of students of English medium elementary schools is significantly higher than the socio-economic background of students of Mizo medium elementary schools.

5.2.2 Comparison of Profile of Students of Mizo Medium and English Medium Elementary Schools in terms of Parental Education.

Table 5.3
Parental education of students of Mizo and English medium elementary schools in Mizoram

Ednl. Qualification	Mizo medium		English medium	
	Father	Mother	Father	Mother
Class I – IV	138 (46%)	136 (45%)	48 (16%)	53 (18%)
Class V – VIII	72 (24%)	73 (24%)	56 (19%)	66 (22%)
Class IX – X	49 (16%)	58 (19%)	63 (21%)	72 (24%)
Class XI – XII	20 (7%)	21 (7%)	39 (13%)	44 (15%)
Graduate	19 (6%)	11 (4%)	70 (23%)	58 (19%)
Post graduate	2 (1%)	1 (0.33%)	24 8%)	7 (2%)

The table 5.3 showed that majority of the parents i.e., 46% of fathers and 45% of mothers of Mizo medium students studied up to class-IV. While, 16% of fathers and 18% of mothers of English medium students studied up to primary. 24% of both parents of Mizo medium students studied up to middle school, while 19% of fathers and 22% of mothers of English medium students studied up to middle school. 16% of fathers and 19% of mothers of Mizo medium students pursued their education up to class-X, while 21% of fathers and 24% of mothers of English medium students studied up to class-X. 7% of both fathers and mothers of Mizo medium students had their education up to class-XII, while 13% of fathers and 15% of English medium students had studied up to class-XII. 6% of mothers and 4% of fathers of Mizo medium students were graduates, while 23% of mothers and 19% of fathers of English medium students were graduates. Very few parents i.e., 2% of fathers and 0.33% of mothers of Mizo medium students were post graduates, while 8% of fathers and 2% of mothers of English medium students were post graduates.

Hence, it is evident that parents of English medium students attained higher level of education as compared to parents of Mizo medium students.

5.2.3   Comparison of Profile of Students of Mizo Medium and English Medium Elementary Schools in Relation to their Intelligence

Table 5.4(a)
Profile of students of Mizo and English medium elementary schools in Mizoram in relation to their intelligence

Category of students	Mean	SD	SE of Difference	t-value
Mizo medium (N=300)	48.22	11.22	.915	5.084
English medium (N=300)	52.87	11.18		

Table 5.4(a) indicated that the mean calculated from the intelligence scores of students of Mizo medium and English medium elementary schools when compared by using t-test is found to be significant at 0.01 level. This indicated that students of English medium elementary schools scored higher in the verbal test of intelligence than students of Mizo medium elementary schools.

Table 5.4(b)
Profile of boys of Mizo and English medium elementary schools in Mizoram in relation to their Intelligence

Category Of Boys	Mean	SD	SE of Difference	t-value
Mizo medium (N=115)	45.95	10.825	1.441	3.823
English medium (N=136)	51.46	11.815		

As evident in table 5.4(b) the mean calculated from the intelligence scores of 115 boys of Mizo medium and 136 boys of English medium elementary schools after comparison by using t-test is found to be significant at 0.01 level. This indicates that boys of English medium elementary schools scored higher in the verbal test of intelligence than boys of Mizo medium elementary schools.

Table 5.4(c)
Profile of girls of Mizo and English medium elementary schools in Mizoram in relation to their Intelligence

Category Of Girls	Mean	SD	SE of Difference	t-value
Mizo medium (N=185)	49.64	11.257	1.171	3.766
English Medium (N=164)	54.05	10.525		

In table 5.4(c) the mean calculated from the intelligence scores of 185 girls of Mizo medium and 164 girls of English medium elementary schools were compared by using t-test is found to be significant at 0.01 level. This indicates that girls of English

medium elementary schools scored higher in the verbal test of intelligence than girls of Mizo medium elementary schools.

5.2.4 Comparison of Profile of Students of Mizo Medium and English Medium Elementary Schools in Relation to their Creativity

Table 5.5(a)
Profile of students of Mizo and English medium elementary schools in Mizoram in relation to their creativity

Medium	Mean	SD	SE of Difference	t-value
Mizo medium (N=300)	86.44	44.477	3.019	.976
English medium (N=300)	89.38	27.512		

Table 5.5(a) shows that the mean calculated from the creativity scores of students of Mizo medium and English medium elementary schools when compared by using t-test, the t-value being .976 is found to be less than the critical value given in the t-table, hence, is not significant.

Table 5.5(b)
Profile of boys of Mizo and English medium elementary schools in Mizoram in relation to their creativity

Category Of Boys	Mean	SD	SE of Difference	t-value
Mizo medium (N=115)	93.79	63.872	6.026	.275
English medium (N=136)	92.14	28.136		

Table 5.5(b) showed that, an attempt was further made to compare the creativity scores of boys of Mizo medium and English medium elementary schools. The means, standard deviations, standard error of difference and t-value, are provided in the columns of the table. The mean calculated from the creativity scores of 115 boys of Mizo medium and 136 boys of English medium elementary schools were compared by using t-test, the t-value was .275, which was found to be less than the critical value given in the t-table. Hence, was not significant

Table 5.5(c)
Profile of girls of Mizo and English medium elementary schools in Mizoram in relation to their creativity

Category Of Girls	Mean	SD	SE of Difference	t-value
Mizo medium (N=185)	81.73	24.344	2.755	1.925
English medium (N=164)	87.04	26.833		

Table 5.5(c) highlighted that the mean calculated from the intelligence scores of 185 girls of Mizo medium and 164 girls of English medium elementary schools were compared by using t-test is found to be significant at 0.10 level. This indicates that girls of English medium elementary schools scored slightly higher in the verbal test of creative thinking than girls of Mizo medium elementary schools.

5.3   COMPARISON OF PROFILES OF TEACHERS OF MIZO MEDIUM AND ENGLISH MEDIUM ELEMENTARY SCHOOLS

The analysis of data collected from Mizo medium and English medium teachers, by means of profile sheet is given under the different sub- heads in the following paragraphs. The asterisks given in some columns of the table indicate the absence of a particular item in that area.

5.3.1   Professional Training of Teachers

Table 5.6
Number of professional training of teachers in Mizo and English medium elementary schools

Status	Mizo medium teacher	English medium teacher
Trained	106 (71%)	28 (19%)
Untrained	44 (29%)	122 (81%)

Figure 5.2
Status of professional training of teachers in Mizo and English medium elementary schools
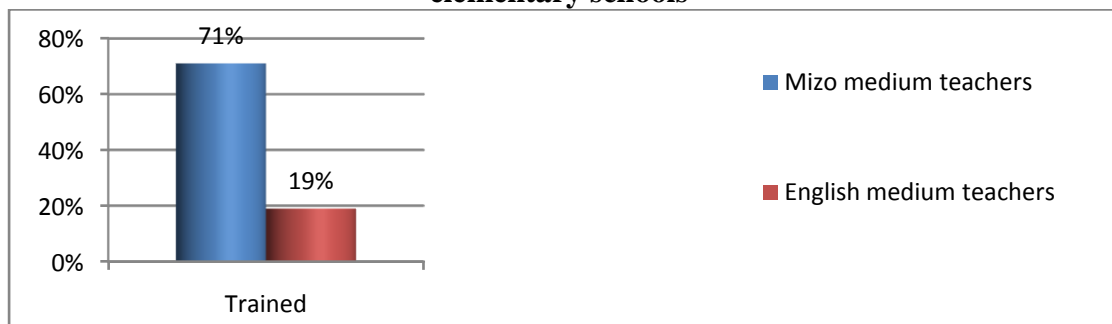
As evident from table 5.6 and figure 5.2, 71% of Mizo medium teachers are professionally trained teachers, but unfortunately in the case of English medium schools, only 19% of the teachers have undergone teacher training programme.

5.3.2 Age-wise Comparison of Mizo and English Medium School Teachers

Figure 5.3
Age wise presentation of teachers in Mizo and English medium elementary schools
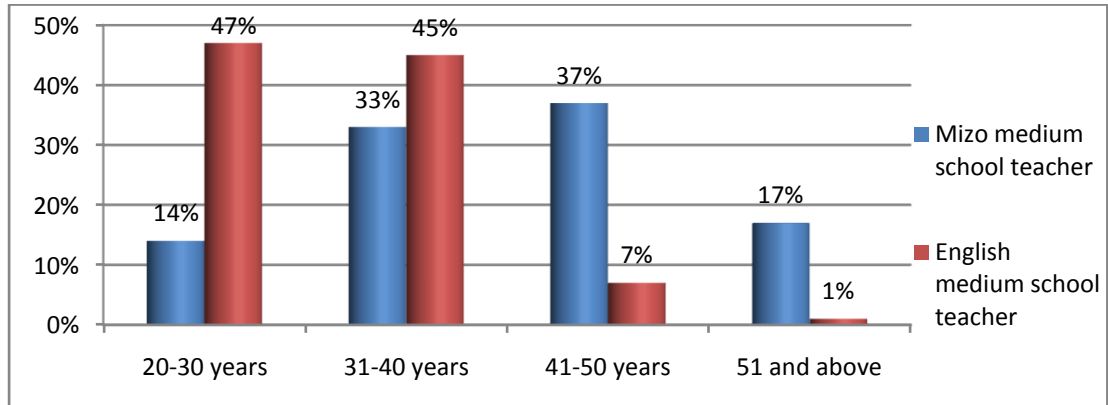
In figure 5.3, it is found that 14% of Mizo medium school teachers are between 20 and 30 years of age, while 47% of English medium school teachers are between these ages. 33% of Mizo Medium teachers belong to the age group of 31 and 40 years, while 45% of teachers of English medium school are between the age of 31 and 40 years. Further, 39% of Mizo medium teachers are between the age group of 41 to 50 years, while there are only 7% of English medium teachers within this age group. About 17% of Mizo medium teachers are 51 years and above while only 1% of English medium teachers are found to be 51 years and above.

5.3.3 Educational Qualification-wise Comparison of Mizo and English Medium School Teachers

Figure 5.4
Educational qualification ofteachersin Mizo and English medium elementary schools
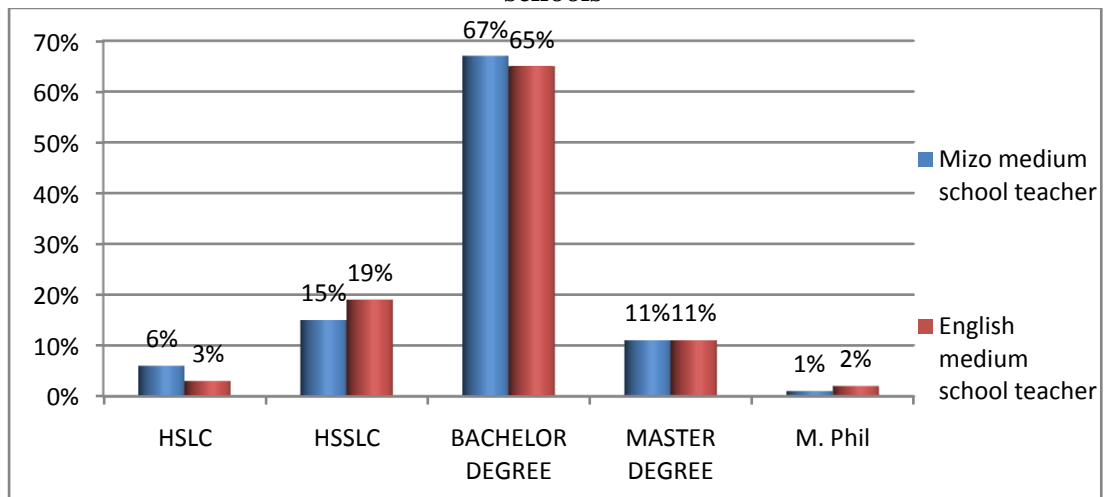
From the given figure 5.4, it is observable that with respect to minimum qualification i.e. HSLC, there are very few teachers in the elementary schools as only 6% Mizo medium teachers and 3% of English medium teachers are HSLC qualified. 15% of Mizo medium teachers and 19% of English medium teachers have qualified HSSLC. Majority of both Mizo and English medium teachers in elementary school are found to have bachelor degree as there are 67% of Mizo medium and 65% of English medium teachers who have bachelor degree. Surprisingly, 11% in both medium i.e., Mizo and English medium teachers are master degree holder. 1% of Mizo medium teachers and 2% of English medium teachers possessed M.Phil degree. There is no Ph.Ds among the samples of Mizo and English medium elementary school teachers.

5.3.4 Teaching experience-wise Comparison of Mizo medium and English Medium teachers

Figure 5.5
Teaching experience of Mizo and English medium elementary school teachers
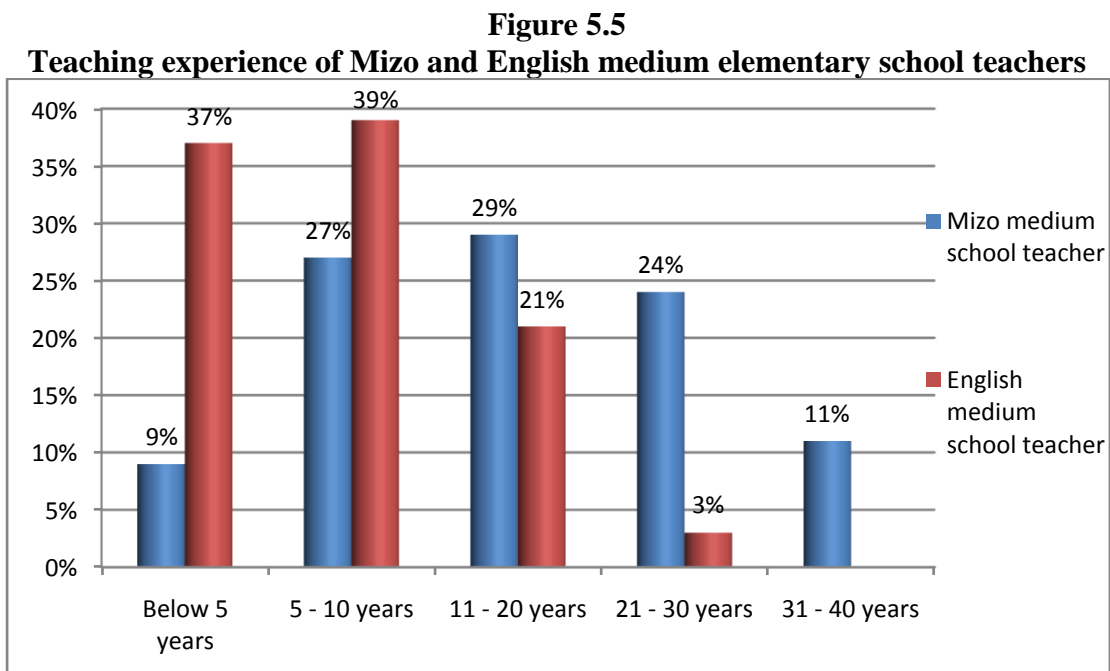
As evident in figure 5.5, a remarkable difference among Mizo and English medium teachers could be seen as 9% of Mizo medium teachers have less than 5 years experiences in teaching while there are 37% of English medium teachers who have less than 5 years teaching experience. 27% of Mizo medium teachers have teaching experience of 5 to 10 years, while 39% of English medium teachers have 5 to 10 years teaching experience. There are 29% among Mizo medium teachers who have 11 to 20 years experiences in teaching while there are 21 % of teachers among

English medium teachers with 11 to 20 years teaching experience. 24% of English medium teachers have 21 to 30 years of experience in teaching, while there are only 3% English medium teachers who have 21 to 30 years teaching experience. While there are none among English medium teachers who have 31 to 40 years of teaching experience, there are 11% among the Mizo medium teachers.

5.3.5 Salary-wise Comparison of Teachers of Mizo Medium and English Medium Schools

Figure 5.6
Salary of teachers of Mizo and English medium elementary schools
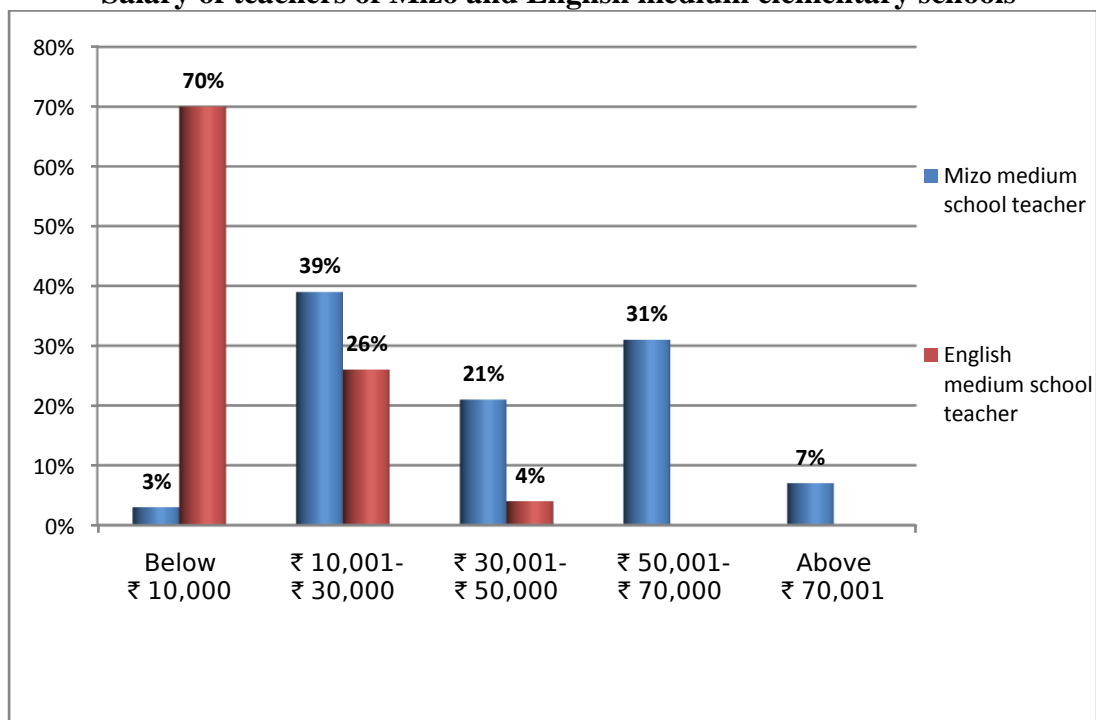
From the given figure 5.6, it is found that there is a remarkable difference of salary between Mizo and English medium elementary school teachers. When 3% of Mizo medium teachers enjoy a salary below ₹10,000, majority of English medium teachers i.e., 70% have a salary below ₹10,000. 39 % of Mizo medium teachers' salary is between ₹10,001 and ₹30,000, while 27% of English medium teachers have a salary between ₹10,001 and ₹30,000. While a very few percent ie., 4% of English medium teachers have a salary between ₹31,000 and ₹50,000, there are 21% among the Mizo medium teachers. 31% of Mizo medium teacher enjoy a salary between ₹50,001 and ₹70,000, when there is none among the English medium teacher. Again, there are 7% among Mizo medium teacher who have a salary above ₹70,001, while there is none among English medium teachers.

5.3.6 Comparison of Mizo Medium and English Medium Teachers in Relation to Nature of Appointment, Product of Mizo/ English Medium School, and Fluency of Teaching in English

Table 5.7
Profile of teachers in relation to nature of appointment, product of Mizo/ English medium school, and fluency of teaching in English

CRITERIA	RESPONSE	Mizo medium School	English medium School
Nature of Appointment	Regular	91 (61%)	42 (28%)
	Contract	56 (37%)	97 (65%)
	Part time	3 (2%)	11 (7%)
Product of:	Mizo medium	124 (83%)	25 (17%)
	Eng. Medium	26 (17%)	125 (83%)
Fluency of Teaching in English	Excellent	*	5 (3%)
	Good	*	66 (44%)
	Average	*	75 (50%)
	Poor	*	4 (3%)

* indicated absence of item

With respect to the given criteria in table 5.7 provided, the following observations may be made as follows:

a) Nature of appointment

With regard to nature of appointment, it is observed that 61% of Mizo medium teachers are government regular employees, while only 28% of English medium teachers are regularly employed. There are 37% of government contract teachers in Mizo medium school. While in the case of private English medium school, contract denotes the not-temporary teachers who have signed a contract between the teacher and the owner of the privately managed schools. Some may not even sign a contract but regarded by default as regular teachers meaning, not temporary in the case of non-government schools. In the present study, to avoid confusion, teachers of private English medium schools are informed to mark on contract column if they are employed by the school and not the government. Very few part time teachers or casual employees are found in both Mizo and English medium school as 2% of the teachers in Mizo medium are part time teachers and 7 % of the teachers in English medium schools are part-time teachers.

b) Product of Mizo/English medium

With regard to product of Mizo/ English medium, it is found that 83% of Mizo medium teachers are a product of Mizo medium school during their elementary schooling, while 17% of English medium teachers are a product of Mizo medium school. 17% of Mizo medium teachers are a product of English medium school while 83% of English medium teachers are a product of English medium school.

c) Fluency of English

Among all the teachers of English medium school, 3% of the teachers felt that they were *Excellent* when it comes to fluency; another 44% felt that they are *good*, and 50% felt that they are *Average*, while another 3% of the teacher felt that they are *poor*. The case of fluency of English does not arise in Mizo medium teachers, and are not included in the profile sheet as they teach in Mizo medium.

5.4 ANALYSIS OF ACADEMIC ACHIEVEMENT OF STUDENTS OF MIZO MEDIUM AND ENGLISH MEDIUM ELEMENTARY SCHOOLS

Table 5.8(a)
Abstract of MSLC and MESLC examination results (2006-2009)

Year	No. of Candidate		Pass		No. of failed	
	MSLC	MESLC	MSLC	MESLC	MSLC	MESLC
2006	7172	4120	5102 (71%)	3285 (80%)	2070 (71%)	835 (29%)
2007	7432	4694	5832 (78%)	4034 (86%)	1600 (71%)	660 (29%)
2008	7354	5283	5919 (80%)	4527 (86%)	1435 (65%)	756 (35%)
2009	6871	5633	5511 (80%)	4275 (76%)	1360 (50%)	1358 (50%)
TOTAL	28829	19730	22364 (78%)	16121 (82%)	6465 (22%)	3609 (18%)

Table 5.8(b)
Pass percentage wise comparison of Mizo and English medium students in MSLC and MESLC examination

Category Of Students	No. Of Data(years)	Mean	SD	SE of Difference	t-value
Mizo Medium	4	77.25	4.272	3.250	1.462
English Medium	4	82.00	4.899		

Figure 5.7
Pass percentage of MSLC and MESLC examination result (2006-2009)
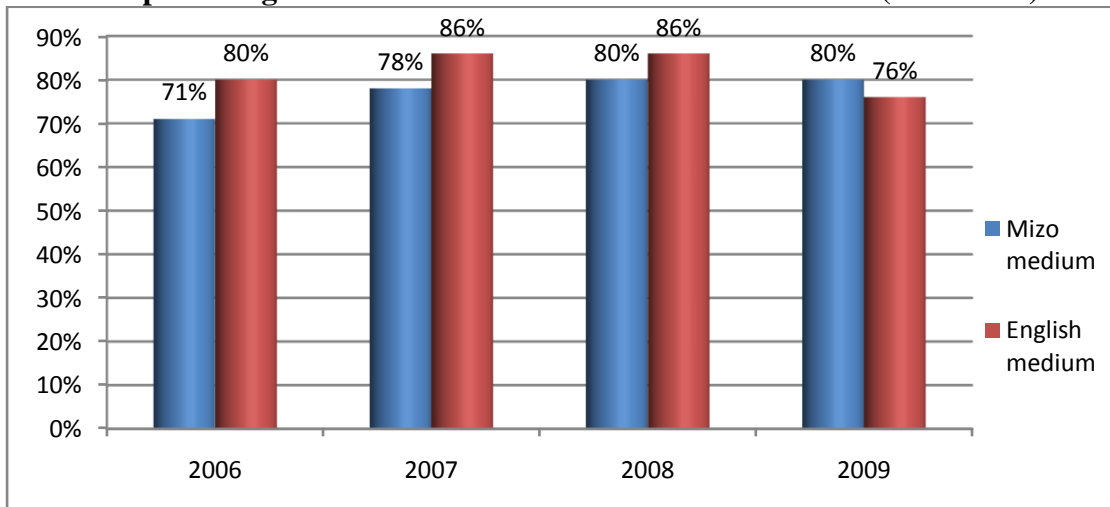
From the given table 5.8(a), 5.8(b) and figure 5.7, it is seen that the mean calculated from the pass percentage of students of Mizo medium and English medium elementary schools are compared by using t-test, the t-value calculated is 1.46, which is less than the critical value given in the t-table. Hence, is not significant.

Table 5.8(c)
Division wise results of MSLC & MESLC examination (2006 – 2009)

Year	Dist		I		II		III		SP	
	MSLC	MESLC	MSLC	MESLC	MSLC	MESLC	MSLC	MESLC	MSLC	MESLC
2006	29	93	420	756	1078	936	2900	1324	675	176
2007	30	217	363	1121	1365	1196	4015	1489	59	11
2008	54	294	564	1191	1577	1389	3663	1636	61	17
2009	74	203	808	1050	1777	1269	2735	1667	117	86
Total	187	807	2155	4118	5797	4790	13313	6116	912	290
Percent	1%	4%	7%	21%	20%	24%	46%	31%	3%	1%

Table 5.8(d)
Division wise comparison of Mizo and English medium students in MSLC and MESLC examination

Year	Dist		I		II		III		SP	
	MSLC	MESLC	MSLC	MESLC	MSLC	MESLC	MSLC	MESLC	MSLC	MESLC
Mean	46.7	201.75	538.75	1029.5	1449.25	1197.5	3328.25	1529	228.00	72.5
SD	21.53	82.81	198.43	191.20	299.26	191.63	610.74	157.18	299.21	76.94
SE of Difference	37.91		121.17		85.92		311.83		114.34	
T- Value	3.62		3.56		1.41		5.70		1.01	

In table 5.8(c) and table 5.8(d), the means calculated from the percentage of performance in division-wise are given as follow:

Percentage of the means of students of Mizo medium and English medium elementary schools who passed in distinction are compared by using t-test, which is found to be significant at 0.02 level. This indicated that the percentage of students of English medium elementary schools is significantly higher than Mizo medium students who passed in distinction.

Percentage of the means of students of Mizo medium and English medium elementary schools who passed in first division are compared by using t-test, which is found to be significant at 0.02 level. This indicated that percentage of students of English medium elementary schools is significantly higher than Mizo medium students who passed in First division.

Percentage of the means of students of Mizo medium and English medium elementary schools who passed in second division are compared by using t-test, the t-value calculated is 1.41, which is less than the critical value given in the t-table. Hence, is not significant.

Percentage of the means of students of Mizo medium and English medium elementary schools who passed in third division are compared by using t-test, which is found to be significant at 0.01 level. This indicated that percentage of students of Mizo medium elementary schools, passed in third division is significantly higher than students of English medium elementary schools.

Percentage of the means of students of Mizo medium and English medium elementary schools who passed in SP (simple pass) are compared by using t-test, the

t-value calculated is 1.41, which is less than the critical value given in the t-table. Hence, is not significant.

5.5 ANALYSIS OF LEVEL OF UNDERSTANDING OF STUDENTS OF MIZO MEDIUM AND ENGLISH MEDIUM ELEMENTARY SCHOOLS

Analysis of data on understanding levels of students on basic concepts relating to science, mathematics and social science of Mizo medium and English medium schools of Mizoram, which were collected by means of tests conducted on selected samples are given with tables and figures under different sub- heads.

5.5.1 Comparison of Mizo Medium and English Medium Elementary School Students on Level of Understanding of Basic Concepts Relating to Science

Table 5.9
Level of understanding of Mizo and English medium students on basic concepts relating to science

Medium	Mean	SD	SE of Difference	T-value
Mizo medium (N=300)	12.10	6.31	.617	1.844
English medium (N=300)	10.96	8.65		

As seen from the given table, table 5.9, the mean score of the level of understanding of students of Mizo medium and English medium elementary schools are compared with the help of t-test, which is found to be significant at 0.10 level. This indicates that students of Mizo medium elementary schools have a higher level of understanding on basic concepts relating to science, than students of English medium elementary schools.

5.5.2 Comparison of Mizo Medium and English Medium Elementary School Students on Level of Understanding of Basic Concepts Relating to Mathematics

Table 5.10
Level of understanding of Mizo and English medium students on basic concepts relating to mathematics

Medium	Mean	SD	SE of Difference	T-value
Mizo medium (N=300)	40.20	18.41	1.422	0.879
English medium (N=300)	41.45	16.38		

In table 5.10, the mean calculated from the scores in level of understanding of students of Mizo medium and English medium elementary schools were compared by using t-test, the t-value is 0.879, and is found to be less than the critical value given in the t-table. Hence, found not significant.

5.5.3 Comparison of Mizo Medium and English Medium Elementary School Students on Level of Understanding of Basic Concepts Relating to Social Science

Table 5.11
Level of understanding of Mizo and English medium students
on basic concepts relating to social science

Medium	Mean	SD	SE of Difference	T-value
Mizo medium (N=300)	12.07	7.13	.647	2.186
English medium (N=300)	10.66	8.67		

As observable from the given table 5.11, the mean score of the level of understanding of students of Mizo medium and English medium elementary schools were compared with the help of t-test, which is found to be significant at 0.05 level. This indicated that students of Mizo medium elementary schools have a higher level of understanding on basic concepts relating to social science than students of English medium elementary schools.

5.6 ANALYSIS OF PERCEPTIONS OF STAKEHOLDERS WITH REGARD TO MEDIUM OF INSTRUCTIONS

Stakeholders in the present study were the students, teachers and parents. Hence, analyses of data on perceptions of stakeholders with regard to medium of instructions are provided into three sub-heads as follows:

5.6.1 Analysis of data on perceptions of students with regard to medium of instructions

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Table 5.12

Perceptions of Students of Mizo and English medium schools on medium of instruction at school level in Mizoram

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Sl. No.	Item	Response	Mizo medium	English medium
1	Teaching, at least up to Class-VIII should be done in Mizo medium	Agree	142 (47%)	112 (37%)
		Disagree	158 (53%)	188 (63%)
2	English spoken class in Mizo medium school should be stressed rather than English medium teaching	Agree	221 (74%)	220 (73%)
		Disagree	79 (26%)	80 (27%)
3	Teaching in English medium kills creativity among students	Agree	147 (49%)	125 (42%)
		Disagree	153 (51%)	175 (58%)
4	English medium teaching is responsible for weaknesses in mathematics and science among the Mizos	Agree	112 (37%)	100 (33%)
		Disagree	188 (63%)	200 (67%)
5	English can be learned anytime but first understanding of content is more important	Agree	282 (94%)	246 (82%)
		Disagree	18 (6%)	54 (18%)
6	To be educated, one needs to go to English medium school	Agree	89 (30%)	199 (66%)
		Disagree	211 (70%)	101 (34%)
7	Mizo medium school has lost its market values	Agree	87 (29%)	120 (40%)
		Disagree	213 (71%)	180 (60%)
8	The Government should transform all the Mizo medium school to English medium school	Agree	111 (37%)	181 (60%)
		Disagree	189 (63%)	119 (40%)
9	Students from Mizo medium are not fluent in English even at maturity	Agree	42 (14%)	90 (30%)
		Disagree	258 (86%)	210 (70%)
10	Being taught in a foreign language and having to use that language as communications throughout the day in school can create anxiety and tension among students	Agree	165 (55%)	122 (41%)
		Disagree	135 (45%)	178 (59%)
11	A child must learn in English medium school for his future vocation	Agree	49 (16%)	95 (32%)
		Disagree	251 (84%)	205 (68%)
12	Teachers themselves who are not fluent in English teach in English medium hampers students' understanding of content	Agree	258 (86%)	262 (87%)
		Disagree	42 (14%)	38 (13%)

A perusal of table 5.12 reflected the following:

i) Majority of both Mizo and English medium students (53% and 63% respectively) disagreed that *Teaching, at least up to Class-VIII should be done in Mizo medium*

ii) A high majority of both Mizo and English medium students (74% and 73% respectively) agreed that *English spoken class in Mizo medium school should be stressed rather than English medium teaching.*

iii) Majority of both Mizo and English medium students (51% and 58% respectively) disagreed that *Teaching in English medium kills creativity among students*

iv) A high majority of both Mizo and English medium students (63% and 67% respectively) disagreed that *English medium teaching is responsible for weaknesses in mathematics and science among the Mizos.*

v) A great majority of both Mizo and English medium students (94% and 82%, respectively) agreed that *English can be learned anytime but first understanding of content is more important.*

vi) A high majority of both Mizo and English medium schools (71% and 60%) disagreed that *Mizo medium school has lost its market values*

vii) Interestingly, an overwhelming majority of both Mizo and English medium students (86% and 70% respectively) disagreed that *students from Mizo medium are not fluent in English even at maturity.*

viii) A high majority of both Mizo and English medium students (84% and 68% respectively) disagreed that *a child must learn in English medium school for his future vocation*

ix) Evidently, an overwhelming majority of the students of both Mizo and English medium schools (86% and 87% respectively) agreed that *teachers themselves who are not fluent in English teach in English medium hampers students' understanding of content.*

However, there are disagreements on certain issues as follows:

i) A high majority i.e.,70% of Mizo medium students strongly disagreed that *in order to be educated, one needs to go to English medium school* while, 66% of the English medium students agreed to it.

ii) A high majority i.e., 63% of the Mizo medium students disagreed that *the Government should transform all the Mizo medium school to English medium school.* While 60% of English medium students agreed to it.

iii) Majority of Mizo medium students i.e.,55% agreed that *being taught in a foreign language and having to use that language as communications throughout the day in school can create anxiety and tension among students* While among the English medium students 59% disagreed to it.

5.6.2 Analysis of data on perceptions of teachers with regard to medium of instructions

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Table 5.13

Perceptions of Teachers of Mizo and English medium schools on medium of instruction at school level in Mizoram

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Sl. No.	Item	Response	Mizo medium	English medium
1	Teaching, at least up to Cl-VIII should be done in Mizo medium	Agree	114 (76%)	41 (27%)
		Disagree	36 (24%)	109 (73%)
2	English spoken class in Mizo medium school should be stressed rather than English medium teaching	Agree	116 (77%)	76 (51%)
		Disagree	34 (23%)	74 (49%)
3	Teaching in English medium kills creativity among students	Agree	108 (72%)	54 (36%)
		Disagree	42 (28%)	96 (64%)
4	English medium teaching is responsible for weaknesses in mathematics and science among the Mizos	Agree	115 (77%)	58 (39%)
		Disagree	35 (23%)	92 (61%)
5	English can be learned anytime but first understanding of content is more important	Agree	129 (86%)	94 (63%)
		Disagree	21 (14%)	56 (37%)
6	To be educated, one needs to go to English medium school	Agree	40 (27%)	67 (45%)
		Disagree	110 (73%)	83 (55%)
7	Mizo medium school has lost its market values	Agree	84 (56%)	117 (78%)
		Disagree	66 (44%)	33 (22%)
8	The Government should transform all the Mizo medium school to English medium school	Agree	25 (17%)	85 (57%)
		Disagree	125 (83%)	65 (43%)
9	Students from Mizo medium are not fluent in English even at maturity	Agree	13 (9%)	45 (30%)
		Disagree	137 (91%)	105 (70%)
10	Being taught in a foreign language and having to use that language as communications throughout the day in school can create anxiety and tension among students	Agree	105 (70%)	31 (21%)
		Disagree	45 (30%)	119 (79%)
11	A child must learn in English medium school for his future vocation	Agree	10 (7%)	32 (21%)
		Disagree	140 (93%)	118 (79%)
12	Teachers themselves who are not fluent in English teach in English medium hampers students' understanding of content	Agree	117 (78%)	120 (80%)
		Disagree	33 (22%)	30 (20%)

From the table 5.13, it is observable that:

i) An overwhelming majority of Mizo medium teachers and a bare majority of English medium (77% and 51%, respectively) agreed that *English spoken class in Mizo medium school should be stressed rather than English medium teaching.*

ii) An overwhelming majority Mizo medium teachers and a high majority of English medium teachers (86% and 63% respectively) agreed that *English can be learned anytime but first understanding of content is more important*

iii) Here also, both Mizo medium and English medium teachers (73% and 55% respectively) disagreed that *to be educated, one needs to go to English medium school.*

iv) Majority of both Mizo medium teachers i.e., 56% and an overwhelming majority of English medium teachers i.e., 78% agreed that *Mizo medium school has lost its market values*,

v) A great majority of Mizo medium teachers i.e., 91% and a high majority i.e., 70% of English medium teachers disagreed that *students from Mizo medium are not fluent in English even at maturity*.

vi) A great majority i.e., 93% of Mizo medium teachers and an overwhelming majority i.e., 79% English medium teachers disagreed that *a child must learn in English medium school for his future vocation.*

vii) Here also, an overwhelming majority of both Mizo and English medium teachers (78% and 80% respectively) agreed that *teachers themselves who are not fluent in English teach in English medium hampers students' understanding of content.*

Teachers differ in their perceptions on certain issues as follows:

i) On the issue that *teaching, at least up to Class-VIII should be done in Mizo medium,* an overwhelming majority i.e., 76% of Mizo medium school teachers agreed, while almost equal to that, 73% of English medium teachers disagreed to it.

ii) A high majority i.e., 72% of Mizo medium teachers agreed that *teaching in English medium kills creativity among students.* On the contrary, another high majority i.e., 64% of English medium teachers disagreed to it

iii) Likewise, an overwhelming majority i.e., 77% of Mizo medium teachers agreed that *English medium teaching is responsible for weaknesses in mathematics and science among the Mizo.* Whereas, a high majority i.e., 61% of English medium teachers disagreed to it.

iv) An overwhelming majority i.e., 83% of Mizo medium teachers disagreed that *the Government should transform all the Mizo medium school to English medium school*, whereas, a small majority i.e., 57% of the English medium teachers agreed to it.

v)   A high majority i.e., 70% of Mizo medium teachers agreed that *being taught in a foreign language and having to use that language as communications throughout the day in school can create anxiety and tension among students,* whereas an overwhelming majority i.e., 79% of English medium teachers disagreed to it.

5.6.3   Analysis of data on perceptions of Parents with regard to medium of instructions

Table 5.14
Perceptions of parents of Mizo and English medium schools on medium of instruction at school level in Mizoram

Sl. No.	Item	Response	Mizo medium	English medium
1	Teaching, at least up to Class-VIII should be done in Mizo medium	Agree	166(55%)	119 (40%)
		Disagree	134 (45%)	181 (60%)
2	English spoken class in Mizo medium school should be stressed rather than English medium teaching	Agree	234 (78%)	180 (60%)
		Disagree	66 (22%)	120 (40%)
3	Teaching in English medium kills creativity among students	Agree	140 (47%)	130 (43%)
		Disagree	160 (53%)	170 (57%)
4	English medium teaching is responsible for weaknesses in mathematics and science among the Mizos	Agree	132 (44%)	129 (43%)
		Disagree	168 (56%)	171 (57%)
5	English can be learned anytime but first understanding of content is more important	Agree	253 (84%)	216 (72%)
		Disagree	47 (16%)	84 (28%)
6	To be educated, one needs to go to English medium school	Agree	109 (36%)	141 (47%)
		Disagree	191 (64%)	159 (53%)
7	Mizo medium school has lost its market values	Agree	135 (45%)	201 (67%)
		Disagree	165 (55%)	99 (33%)
8	The Government should transform all the Mizo medium school to English medium school	Agree	144 (48%)	158 (53%)
		Disagree	156 (52%)	142 (47%)
9	Students from Mizo medium are not fluent in English even at maturity	Agree	65 (22%)	103 (34%)
		Disagree	235 (78%)	197 (66%)
10	Being taught in a foreign language and having to use that language as communications throughout the day in school can create anxiety and tension among students	Agree	178 (59%)	118 (39%)
		Disagree	122 (41%)	182 (61%)
11	A child must learn in English medium school for his future vocation	Agree	47 (16%)	85 (28%)
		Disagree	253 (84%)	215 (72%)
12	Teachers themselves who are not fluent in English teach in English medium hampers students' understanding of content	Agree	280 (93%)	270 (90%)
		Disagree	20 (7%)	30 (10%)

As per tables 5.14, it is found that:

i) An overwhelming majority of parents of Mizo medium students i.e., 78% and a high majority i.e., 60% of parents of English medium students agreed that *English spoken class in Mizo medium school should be stressed rather than English medium teaching.*

ii) Majority of both parents (53% and 57%) of Mizo and English medium students disagreed that *teaching in English medium kills creativity among students*

iii) Majority of both parents (56% and 57%)disagreed that *English medium teaching is responsible for weaknesses in mathematics and science among the Mizos*

iv) An overwhelming majority of both parents (84% and 72% respectively) agreed *that English can be learned anytime but first understanding of content is more important*

v) Majority of both parents of Mizo and English medium students (64% and 53% respectively) disagreed that *to be educated, one needs to go to English medium school*

vi) Interestingly, an overwhelming majority of parents of Mizo medium students i.e., 78% and a high majority i.e., 66% of parents of English medium students disagreed that *students from Mizo medium are not fluent in English even at maturity.*

vii) A high majority of parents of both Mizo and English medium schools (84% and 72% respectively) agreed to the statement that teachers themselves who are not fluent in English teach in English medium hampers students' understanding of content.

viii) Majority of both parents of Mizo and English medium (55% and 67%) disagreed that Mizo medium school has lost its market values.

ix) An overwhelming majority (84%) of parents of Mizo medium students *and a high majority i.e., 72% of parents of English medium students disagreed that A child must learn in English medium school for his future vocation*

x) Yet, again, a great majority of both the parents (93% and 90% respectively) of Mizo and English medium students agreed that *teachers themselves who are not fluent in English teach in English medium hampers students' understanding of content.*

Parents of Mizo and English medium students are found to disagree on four issues as follows:

i) Majority of parents i.e., 55% of Mizo medium students agreed that *teaching, at least up to Class-VIII should be done in Mizo medium.* Whereas, a high majority i.e., 60% parents of English medium students disagreed to it.

ii) A small majority i.e., 55% of parents of Mizo medium disagreed that *Mizo medium has lost its market value,* while a high majority i.e., 67% of parents of English medium students agreed to it.

iii) A small majority of parents i.e., 52% of Mizo medium students disagreed to the transformation of all Mizo medium schools to English medium schools, whereas another small majority of parents of English medium students (53%) agreed to it.

iv) Majority of parents of Mizo medium students (59%) agreed that *being taught in a foreign language and having to use that language as communications throughout the day in school can create anxiety and tension among students,* while a high majority of parents of English medium students i.e., 61% disagreed to it.

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CHAPTER – VI

FINDINGS,
DISCUSSIONS, RECOMMENDATIONS,
SUGGESTIONS FOR FURTHER
STUDIES AND CONCLUSIONS

CHAPTER-VI

FINDINGS, DISCUSSIONS, RECOMMENDATIONS, SUGGESTIONS FOR FURTHER STUDIES AND CONCLUSIONS

6.0   INTRODUCTION

The previous five chapters deal with the concepts, theoretical arguments, the review of literatures, the methodology of the research work along with descriptions of the tools and techniques employed, policy reviews and the subsequent analysis of data collected in the study; all of which have guided the path of the present chapter in presenting the findings, conclusions and recommendation thereafter. The findings and conclusions are presented in different sub-heads. General conclusions, discussions and recommendations are given in the concluding part of the chapter.

6.1   FINDINGS IN RELATION TO POLICY ON MEDIUM OF INSTRUCTIONS

6.1.1   *General Findings in Relation to Policy of Government of India on Medium of Instructions*

A general analysis of the existing language policies of the government of India made it observable that promotion and maintenance of the linguistic diversity and multilingualism of the nation had always been the focus and the goal. The importance of mother tongue medium of instruction also has always been realized and promoted. However, the drawbacks always remained in the transaction or the implementation of the policy.

6.1.2   *Findings in Relation to Policy of Government of Mizoram on Medium of Instructions*

In the light of the study of the Education Policy of Mizoram 2013, certain phenomena may be highlighted which mirrored the existing situations in Mizoram viz.

- The government of Mizoram in its Education Policy 2013, although after reflecting mother tongue medium of instruction as undoubtedly the first choice of medium of instruction at the primary level, on the other hand,

converted 71 government primary Mizo medium schools into English medium schools already by December 2014.

- Since 2002, the government of Mizoram has been converting Government Mizo medium primary schools and middle schools to English medium schools. The number of converted schools will continue to increase as the process of conversion is still going on.

- Non-government schools (including private schools, village/NGO's school, Church run schools, etc.) in Mizoram are having English exclusively as a medium of instruction starting right from the pre-primary/ primary stage.

- The researcher has observed that majority of the private pre-schools, which have started earning significance and popularity in Mizoram from the early years of 2000 as well as many government anganwadis have adopted English medium based activities/instruction. Meanwhile, there are still few pre-schools and aganwadis who practise mother-tongue medium of instructions/activities.

- Although the Mizoram Education Reforms Commission-2010 reiterated "the importance of learning with understanding and comprehension and doing away with rote learning", the government of Mizoram had issued a notification for the use of English as a medium of instruction from Class-VI onwards in all the government schools and government-aided schools commencing from the academic session of 2017-2018.

As Mizoram is a state where people interact mostly in Mizo in the neighbourhoods, social gatherings, ceremonies, markets and even in the government offices; one would definitely survive a normal life and would not encounter any serious problems without the knowledge of any other languages which is especially true in rural areas of Mizoram. In such a case where English and even Hindi are still unacquainted languages to majority of the Mizos, doing away with 'rote learning' seemed quite impossible if medium of instruction is a second language. (*Education Policy of Mizoram 2013:16, and Govt. Notification No. B.12011/1/2012-EDN (SC).*

Hence, the hypothesis that *'the state government does not have a clear cut policy on the medium of instruction in elementary schools'* has been retained.

6.2   FINDINGS IN RELATION TO ENROLMENT OF STUDENTS OF MIZO MEDIUM AND ENGLISH MEDIUM ELEMENTARY SCHOOLS

a) In the year 2011-12 and 2012-13 there were 47% of students belonging to Mizo medium elementary schools. While in English medium elementary schools, enrolment of students was slightly higher as there were 53% of students.

b) In the year 2013-14 and 2104-15 there were 40% of students in Mizo medium elementary schools while English medium elementary schools had 60% of students. In the year 2015-16 enrolment of students in Mizo medium elementary school was 38% while in English medium it was 62%.

To conclude, enrolment of students in Mizo medium declined while enrolment in English medium school increased. The conversion of Govt. Mizo medium schools to English medium schools can be inferred as one of the contributing factors for the drastic decline of enrolment of students. During the year 2002-2014, the government of Mizoram issued an order of conversion of 109 government elementary Mizo medium schools to English medium elementary schools (71 government primary schools and 38 government middle schools).

Hence, the null hypothesis that '*there is not much difference between Mizo medium and English medium elementary schools in terms of enrolment of students'* is rejected and the opposite of it is accepted.

6.3   FINDINGS IN RELATION TO PROFILE OF STUDENTS OF MIZO MEDIUM AND ENGLISH MEDIUM ELEMENTARY SCHOOLS

The profiles of students of Mizo medium and English medium elementary schools were analysed and findings in terms of different variables were further given as follows:

6.3.1   Findings in Relation to Profile of Students in Mizo Medium and English Medium Schools in Terms of Socio-Economic Status

The socio-economic status of students of English medium elementary schools was found to be significantly higher than their counterparts from Mizo medium elementary schools.

In the light of these findings, the null hypothesis, *'the socio-economic background of students of Mizo medium and English medium elementary schools do not differ significantly'* is rejected and opposite of it is accepted

6.3.2 Findings in Relation to Profile of Students in Terms of Parental Education

Students of English medium school had better educated parents than students of Mizo medium schools. Very few percentages i.e., 11% of parents of Mizo medium students were graduates and while, 53% of parents of English medium students were graduates and post graduates.

In the light of these findings, the null hypothesis, *'there is not much difference between the parental education background of students of Mizo medium and English medium elementary schools'* is rejected and opposite of it is accepted.

6.3.3 Findings in Relation to Profile of Students in Terms of their Intelligence

- Students of English medium elementary schools scored significantly higher in the verbal test of intelligence than students of Mizo medium elementary schools.
- Boys of English medium elementary schools scored significantly higher in the verbal test of intelligence than boys of Mizo medium elementary schools.
- Girls of English medium elementary schools scored significantly higher in the verbal test of intelligence than girls of Mizo medium elementary schools.

Therefore, the null hypothesis, *'there is no significant difference between students of Mizo medium and English medium elementary schools in terms of their intelligence'* has been rejected and opposite of it has been accepted.

6.3.4 Findings in Relation to Profile of Students in Terms of their Creativity

- Students of Mizo medium and English medium elementary schools did not differ significantly in terms of their mean score on creativity test.
- Boys of Mizo medium and English medium elementary schools did not differ significantly in terms of their mean score on creativity test.
- Girls of English medium elementary schools scored significantly higher than their counter parts from girls of Mizo medium on creativity test.

In the light of these findings, the null hypothesis, *'there is no significant difference between the Mizo medium and English medium elementary schools in relation to their creativity'* was accepted in relation to the comparison of students as well as boys from both medium of schools. However, in case of comparison of girls from Mizo medium and English medium elementary schools, the said null hypothesis has been rejected and opposite of it has been accepted.

6.4 FINDINGS IN RELATION TO PROFILE OF TEACHERS OF MIZO MEDIUM AND ENGLISH MEDIUM ELEMENTARY SCHOOLS

a) In terms of educational qualifications there was not much difference between the teachers of Mizo and English medium elementary schools. Around 65% to 67% of teachers in both schools were having bachelor degree, 12% to 13% were having post-graduate degrees, and 21% to 22% were having qualification below bachelor degree.

b) Majority of the Mizo medium school teachers had undergone teachers training programme like B.Ed. or D.El.Ed. while there were a dearth of trained teachers amongst the English medium elementary school teachers.

c) With respect to service conditions and salary, teachers of Mizo medium elementary schools enjoyed a much better position than their counter parts from English medium elementary schools.

d) In relation to retention in jobs, regular teachers of Mizo medium elementary schools remained in the teaching profession till their retirement while, there was hardly any English medium elementary school teachers with more than 30 years teaching experience, showing that most of the teachers moved to another profession when found an opportunity.

Here, the null hypothesis that *'there is not much difference between Mizo medium and English medium elementary schools in terms of their teacher's profile'* has been rejected.

6.5   FINDINGS IN RELATION TO ACADEMIC ACHIEVEMENT OF MIZO MEDIUM AND ENGLISH MEDIUM ELEMENTARY SCHOOLS

The Academic achievements of Mizo medium and English medium elementary schools indicated that the overall pass percentages of both Mizo and English medium students for four years in the MSLC and MESLC examination were satisfactory. Although, with a slightly higher pass percentage in English medium with 82% and 78% respectively, the mean differences of the pass percentages were not found to be significant. However, division-wise analysis showed that significant difference in the performances of Mizo medium and English medium students were observed. Students of English medium elementary schools were performing better than students of Mizo medium as the mean differences in the distinction and first division percentages are significantly higher. However, the mean difference of second division pass percentage of Mizo medium students and English medium students, when compared with t-test, with a t-value of 1.41, which was less than the critical value given in the t-table. Hence, was not significant. And there were no significant differences of the percentages in III division and simple pass among the Mizo medium and English medium students.

Looking into the overall performances, the null hypothesis that, *'Mizo medium and English medium elementary schools do not differ significantly in terms of their results of middle school leaving certificate examination'* is retained.

6.6   FINDINGS IN RELATION TO LEVEL OF UNDERSTANDING OF STUDENTS OF MIZO MEDIUM AND ENGLISH MEDIUM ELEMENTARY SCHOOLS

The findings on Students' level of understanding of basic concepts of Science, Mathematics and Social science of Mizo medium and English medium elementary schools are given as follows:

6.6.1   Findings Related to Students' Level of Understanding of Basic Concepts of Science

Data collected by means of tests on understanding levels of students on basic concepts relating to science of Mizo medium and English medium students, revealed

that Mizo medium students scored significantly higher than the students of English medium schools.

Thus, the null hypothesis that, *'there is no significant difference between the students of Mizo medium and English medium schools in relation to their understanding of basic concepts of science'* has been rejected, and opposite of it has been accepted.

6.6.2 Findings Related to Students' Level of Understanding of Basic Concepts of Mathematics

Findings on understanding levels of students on basic concepts relating to mathematics of Mizo medium and English medium schools revealed that there was no significant difference between the students of Mizo medium and English medium schools in relation to their understanding of basic concepts of mathematics.

Hence, the null hypothesis so framed that, *'there is no significant difference between the students of Mizo medium and English medium schools in relation to their understanding of basic concepts of mathematics'* has been retained.

6.6.3 Findings Related to Students' Level of Understanding of Basic Concepts of Social Science

Findings on understanding levels of students on basic concepts relating to social science of Mizo medium and English medium schools of Mizoram revealed that Mizo medium students scored significantly higher in social science than students of English medium schools.

Therefore, the null hypothesis that*, 'there is no significant difference between the students of Mizo medium and English medium schools in relation to their understanding of basic concepts of social science'* has been rejected, and the opposite of it has been accepted.

6.7 FINDINGS ON PERCEPTIONS OF STAKEHOLDERS WITH REGARD TO MEDIUM OF INSTRUCTION

The findings in relation to perceptions of stakeholders i.e., students, teachers and parents with regard to medium of instruction of Mizo medium and English medium elementary schools are provided into sub-heads as follows:

6.7.1 Findings on Perceptions of Students with Regard to Medium of Instruction

Surprisingly, the following findings revealed that when it comes to medium of instructions, students of Mizo and English medium did not differ much in their perceptions although they come from a different educational background

i)   Majority of both Mizo and English medium students (53% and 63% respectively) disagreed that *Teaching, at least up to class-VIII should be done in Mizo medium*

ii)   A high majority of both Mizo and English medium students (74% and 73% respectively) agreed that *English spoken class in Mizo medium school should be stressed rather than English medium teaching.*

iii)   Majority of both Mizo and English medium students (51% and 58% respectively) disagreed that *Teaching in English medium kills creativity among students*

iv)   A high majority of both Mizo and English medium students (63% and 67% respectively) disagreed that *English medium teaching is responsible for weaknesses in mathematics and science among the Mizos.*

v)   A great majority of both Mizo and English medium students (94% and 82%, respectively) agreed that *English can be learned anytime but first understanding of content is more important.*

vi)   A high majority of both Mizo and English medium schools (71% and 60%) disagreed that *Mizo medium school has lost its market values*

vii)   Interestingly, an overwhelming majority of both Mizo and English medium students (86% and 70% respectively) disagreed that *students from Mizo medium are not fluent in English even at maturity.*

viii)   A high majority of both Mizo and English medium students (84% and 68% respectively) disagreed that *a child must learn in English medium school for his future vocation*

ix)   Evidently, an overwhelming majority of the students of both Mizo and English medium schools (86% and 87% respectively) agreed that *teachers themselves who are not fluent in English teach in English medium hampers students' understanding of content.*

However, there are disagreements on certain issues such as:

i)　　A high majority i.e.,70% of Mizo medium students strongly disagreed that *in order to be educated, one needs to go to English medium school* while, 66% of the English medium students agreed to it.

ii)　　A high majority i.e., 63% of the Mizo medium students disagreed that *the government should transform all the Mizo medium school to English medium school*. While 60% of English medium students agreed to it.

iii)　　Majority of Mizo medium students i.e.,55% agreed that *being taught in a foreign language and having to use that language as communications throughout the day in school can create anxiety and tension among students* While among the English medium students 59% disagreed to it.

　　　　Although there are disagreements on three issues, it is safe to conclude that students of both mediums do not differ much in their perceptions relating to medium of instructions. Hence, the hypothesis*, 'there is not much difference in the perceptions of students on medium of instruction'* is retained.

6.7.2　Findings on Perceptions of Teachers with Regard to Medium of Instruction

i)　　An overwhelming majority of Mizo medium teachers and a bare majority of English medium (77% and 51%, respectively) agreed that *English spoken class in Mizo medium school should be stressed rather than English medium teaching*.

ii)　　An overwhelming majority Mizo medium teachers and a high majority of English medium teachers (86% and 63% respectively) agreed that *English can be learned anytime but first understanding of content is more important*

iii)　　Here also, both Mizo medium and English medium teachers (73% and 55% respectively) disagreed that *to be educated, one needs to go to English medium school.*

iv)　　Majority of both Mizo medium teachers i.e., 56% and an overwhelming majority of English medium teachers i.e., 78% agreed that *Mizo medium school has lost its market values*,

v)　　A great majority of Mizo medium teachers i.e., 91% and a high majority i.e., 70% of English medium teachers disagreed that *students from Mizo medium are not fluent in English even at maturity*.

vi)   A great majority i.e., 93% of Mizo medium teachers and an overwhelming majority i.e., 79% English medium teachers disagreed that *a child must learn in English medium school for his future vocation.*

vii)   Here also, an overwhelming majority of both Mizo and English medium teachers (78% and 80% respectively) agreed that *teachers themselves who are not fluent in English teach in English medium hampers students' understanding of content.*

Teachers differ in their perceptions on issues as follows:

i)   There was a disagreement on the issue that *teaching, at least up to class-VIII should be done in Mizo medium* as an overwhelming majority i.e., 76% of Mizo medium school teachers agreed, while almost equal to that, 73% of English medium teachers disagreed to it.

ii)   A high majority i.e., 72% of Mizo medium teachers agreed that *teaching in English medium kills creativity among students.* On the contrary, another high majority i.e., 64% of English medium teachers disagreed to it.

iii)   Likewise, an overwhelming majority i.e., 77% of Mizo medium teachers agreed that *English medium teaching is responsible for weaknesses in mathematics and science among the Mizo.* Whereas, a high majority i.e., 61% of English medium teachers disagreed to it.

iv)   An overwhelming majority i.e., 83% of Mizo medium teachers disagreed that *the Government should transform all the Mizo medium school to English medium school*, whereas, a small majority i.e., 57% of the English medium teachers agreed to it.

v)   A high majority i.e., 70% of Mizo medium teachers agreed that *being taught in a foreign language and having to use that language as communications throughout the day in school can create anxiety and tension among students,* whereas an overwhelming majority i.e., 79% of English medium teachers disagreed to it.

From the findings on the perceptions of teachers with regard to medium of instructions, there are instances where teachers seemed to have a stand on the medium of a school which they teach. Therefore, the hypothesis,

'there is not much difference in the perceptions of teachers on medium of instruction' is rejected and the opposite of it is retained.

6.7.3 Findings on Perceptions of Parents with Regard to Medium of Instruction

Parents of Mizo and English medium students are found to have the same perceptions on the following issues in relation to medium of instructions:

i) An overwhelming majority of parents of Mizo medium students i.e., 78% and a high majority i.e., 60% of parents of English medium students agreed that *English spoken class in Mizo medium school should be stressed rather than English medium teaching.*

ii) Majority of both parents (53% and 57%) of Mizo and English medium students disagreed that *teaching in English medium kills creativity among students.*

iii) Majority of both parents (56% and 57%) disagreed that *English medium teaching is responsible for weaknesses in mathematics and science among the Mizos.*

iv) An overwhelming majority of both parents (84% and 72% respectively) agreed *that English can be learned anytime but first understanding of content is more important.*

v) Majority of both parents of Mizo and English medium students (64% and 53% respectively) disagreed that *to be educated, one needs to go to English medium school.*

vi) Interestingly, an overwhelming majority of parents of Mizo medium students i.e., 78% and a high majority i.e., 66% of parents of English medium students disagreed that *students from Mizo medium are not fluent in English even at maturity.*

vii) A high majority of parents of both Mizo and English medium schools (84% and 72% respectively) agreed to the statement that teachers themselves who are not fluent in English teach in English medium hampers students' understanding of content.

viii) Majority of both parents of Mizo and English medium (55% and 67%) disagreed that Mizo medium school has lost its market values.

ix)   An overwhelming majority (84%) of parents of Mizo medium students *and a high majority i.e., 72% of parents of English medium students disagreed that A child must learn in English medium school for his future vocation.*

x)   Yet, again, a great majority of both the parents (93% and 90% respectively)of Mizo and English medium students agreed that *teachers themselves who are not fluent in English teach in English medium hampers students' understanding of content.*

Parents of Mizo and English medium students disagreed on four issues such as:

i)   Majority of parents i.e., 55% of Mizo medium students agreed that *teaching, at least up to class-VIII should be done in Mizo medium.* Whereas, a high majority i.e., 60% parents of English medium students disagreed to it.

ii)   A small majority i.e., 55% of parents of Mizo medium disagreed that *Mizo medium has lost its market value,* while a high majority i.e., 67% of parents of English medium students agreed to it.

iii)   A small majority of parents i.e., 52% of Mizo medium students disagreed to the transformation of all Mizo medium schools to English medium schools, whereas another small majority of parents of English medium students (53%) agreed to it.

iv)   Majority of parents of Mizo medium students (59%) agreed that *being taught in a foreign language and having to use that language as communications throughout the day in school can create anxiety and tension among students,* while a high majority of parents of English medium students i.e., 61% disagreed to it.

Perceptions of parents with regard to medium of instruction revealed that although there are some points of disagreement in certain issues, parents shared common perceptions on majority of the issues raised on medium of instructions. Hence, the hypothesis, *'there is not much difference in the perceptions of parents on medium of instruction'* is retained.

In conclusion, Majority of all the stakeholders agreed to the statement that *"teachers themselves who are not fluent in English teach in English medium hampers students' understanding of content"*. An observation of some of the items that have direct bearings to the perceptions on medium of instructions revealed that:

a) A very high percentage of all the stakeholders i.e., students of Mizo and English medium schools, teachers of Mizo and English medium schools, and parents of Mizo and English medium schools, agreed to the statement that *'English can be learned anytime but first understanding of content is more important'*

b) Majority of almost all the stakeholders i.e., students of Mizo medium schools, teachers of Mizo and English medium schools, and parents of Mizo and English medium schools (excepting the students of English medium), have shown their disagreement to the statement *'To be educated, one needs to go to English medium schools'*

c) A very high percentage of all the stakeholders i.e., students of Mizo and English medium schools, teachers of Mizo and English medium schools, and parents of Mizo and English medium schools, disagreed to the statement that 'A child must learn in English medium school for his future vocation'.

6.8   DISCUSSIONS

Findings on the perceptions of stakeholders i.e., students, teachers and parents with regard to medium of instructions clearly pointed out that stakeholders agreed and accepted the indispensability of English language in today's world. The strong attachment felt towards English on the part of the stakeholders could also be seen which may be largely due to the fact that the majority of the Mizos are Christians and the missionaries who started education and brought about development to the Mizo society were English speakers. Meanwhile, most of them disagreed to the transformation of all Mizo medium schools to English medium schools. This may be considered infeasible due to paucity of competent teachers. They all seemed to realise the significance of clear understanding of different subjects which is best possible through mother- tongue medium of instructions.

Coming to the core of the study that is the impact of medium of instruction at school level, the researcher conclude that, after careful studying and comparing the profiles of students with respect to Socio-economic background, parental education, intelligence, creativity, and the outcome revealed from the conduct of tests on understanding of basic concept in science, mathematics and social science, for the state of Mizoram, mother-tongue as a medium of instruction has its many advantages over the English medium of instruction. The researcher also found that in almost all the English medium schools, teaching and explanation in mathematics subject was

done in the mother tongue to ensure students' better understanding. This may be the reason that no significant difference was found between Mizo medium and English medium students in relation to their understanding of basic concepts of mathematics. Data analysis thus, revealed that students of English medium school had many supportive conditions for education like better conducive home environment, higher socio-economic status, better educated parents, continuous monitoring and nurturance by parents, greater efforts by the schools like maintenance of strict discipline with extra tutorials or special classes arranged; whereas, majority of the Mizo medium children come from poor families with less educated parents, who were mostly engaged in more laborious and less paid jobs with lesser time for their children who studied on their own. Despite the insufficient supporting conditions for learning, students of Mizo medium schools fared well as their English medium counterparts or performed even better than the English medium students in many situations.

An interesting finding of the study with respect to teachers' profile is that although majority of English medium school teachers were products of English medium schools at the elementary stage, however 3% out of the total 150 teachers rated themselves as excellent when it comes to fluency of teaching in English. From the informal interviews with the English medium teachers, the researcher gathered that most of them interchangeably used Mizo and English in the classroom explanations. And that majority of the English medium teachers on whose hands laid more than half of the total students in Mizoram had not yet undergone any professional training. These clearly pointed out the necessity of inclusive teacher training programme, as well as having English as a subject of study and not studying every subject through English. The study also revealed that English for content learning did not enable the learner to gain mastery over the language, rather disrupt his understanding of content.

With regard to perceptions of stakeholders on medium of instructions, analysis of data clearly pointed out that all stakeholders seemed to give great importance to English proficiency. However many of them did not find the use of English as a medium of instruction effective enough for the attainment of good command over the language. It must also be noted that the missionaries who gave great importance to mother tongue medium of instructions by introducing an alphabet, prepared curriculum in Mizo and imparted instruction in Mizo, also introduced English to attract the sons of the Mizo chiefs or their representatives to the mission schools, who

would in normal practise be sent to the government schools at Aizawl where Bengali language was taught.

In the present condition of the Mizo society, to many people with their misconception, English proficiency is regarded as the 'ends' of education. At the same time stakeholders, with the knowledge of the strength of faculties in schools are quite aware of the fact that adequate number of competent teachers to teach English are not available in every region of the state. However, in some case, students of English medium schools, from their response, do not seem to think beyond the continuum of English medium teaching as they do not experience otherwise.

Beyond the several research data collected, the researcher have come across many important facts and information from the much informal interviews with the stakeholders. Some remarkable ones are:

- Many students claimed that they did not perform well in the class tests or exams in many cases, not because they did not know the answer but because they could not express well in the language for which they were required to give their answers.

- A very good number of teachers of English medium schools did not deny the fact that they translated the English written text into Mizo for the students, and especially in mathematics class, Mizo is used in explanations and interactions.

- Many teachers of English medium schools pointed out that their students faced difficulty in carrying out certain projects provided in the text of different subjects due to necessity of expression in English language.

- Many teachers of Mizo medium schools affirmed to have students only from the families who cannot afford the expensive fees of private schools.

- Parents of English medium also pleaded that they had trouble assisting their children in their learning as they cannot fully comprehend the English language in the text.

- Many parents claimed that although they felt that the best medium of learning for their child is Mizo, they cannot afford to send them to government Mizo medium schools considering the condition of government schools in many places.

- Some parents wished to have a privately managed Mizo medium school which would maintain strict discipline and provide opportunity for effective

academic learning side by side with good communication skills in English and Hindi.

6.9 RECOMMENDATIONS

One of the important purposes of research in education is the evolution of suggestions in the form of recommendations which resulted out of the systematic study and analysis of data and the conclusions drawn thereafter. The implementation of such recommendations often proved to be an essential means in the development of practices in education. Recommendations which emerged out of the present study are given in the form of specific recommendations and general recommendations.

6.9.1 Specific Recommendations

On the basis of the findings of the present study, the following points may be recommended:

i) Mother tongue medium of instruction with enhanced method of study of languages (English and Hindi) as a subject at elementary education. (Studies on the perceptions of stakeholders as well as results of Tests for understanding of basic concepts relating to science, mathematics and social science supported the recommendation)

ii) Development and enrichment of the local language, by borrowing terminology from English and other languages. (For successful implementation of Mizo medium of instruction, the researcher found the need for development of vocabularies and enrichment of the local language, and hence, suggested the third point too for one amongst many solutions).

iii) Initiatives to motivate experts in different fields for translation of literatures into local languages.

iv) Strengthening and expansion of teachers training programmes (The research findings showed that majority of English medium teachers had not undergone professional trainings)

v) Allocation of more time to practice and reinforce English in the school schedule for interaction and communication (The findings of the present study revealed that English when studied as a medium of instruction was not effective enough for attainment of proficiency in English)

vi)   Improvised teaching methods through modern teaching technology. (The researcher had witnessed that the traditional method of teaching and learning was still mostly practised in elementary schools where majority of both the teachers and students depend largely on books.)

vii) Enhanced teaching/reading resources like computers, books, internet access, story books, educational games, etc. (The researcher had come across that resources in I.T as well as story books, educational games etc. were still beyond the reach of students especially in rural areas.)

viii) Provision of specific material contents like specific strategies for speaking, reading comprehensions and writing skills. (While in the process of studying learning materials of elementary schools for development of tools in relation to basic understanding of science, mathematics and social science, the researcher had found the need for enhancement of learning content for speaking, reading comprehensions and writing skills.)

6.9.2   General Recommendations

Since Mizo medium of instruction is not available after the secondary level onwards, careful devising of effective strategies is the need of the hour. It is also important to continuously realize the role of English in the global society. It must be ensured that English as a language in education is fully realised so that students of Mizo medium as well as English medium elementary schools can enjoy a smooth transition to secondary education where English medium of instruction is mandatory, or are enabled to acquire the necessary communication skills to lend themselves to better job opportunities. Pattanayak has rightly pointed "It must be remembered that English as a supplement to mother- tongue education is strength; as substitute it is debilitation". (Pattanayak, 1991)

It is therefore, suggested that urgent steps be taken for implementing the mother tongue as medium of instruction in elementary schools where English (or any other language) as a subject of study should not be neglected. The words of Kachru (2006) as quoted by Hock, Zarina Manawar (2009) are indeed very true in saying that 'the English language is now the most sought after medium for initiating and accelerating global bilingualism and multilingualism'. A study on the effectiveness of innovative system of school education on language proficiency of students written by Singh, Meenu and Satsangi, Nandita (2001) strongly supports the use of innovative

techniques in improving English language proficiency of students. The innovative system of education here refers to the semester system with new techniques of teaching and evaluation like seminars, group discussions, periodical assessments (objective type of tests) and emphasis on co-curricular activities for all-round development of students. Thus emphasis is not only on written but also oral English.

For the Mizos, mother tongue medium of instruction with sufficient place for improvised technique of learning English and Hindi as subjects would be the implementation of the Three Language Formula in the truest sense. Skutnabb (2000) as quoted by Biseth (2009) also argues that it is the responsibility of the state to provide an educational system where multilingualism is treated as a necessity. This strategy would enable the students to be multilingual, or at least bilingual with proficient English or Hindi or any language for that matter, and thus in turn would bring about wholesome development of the most valuable resources, the human resources.

6.10   SUGGESTIONS FOR FURTHER RESEARCH

The present study aim to answer the different questions rooted in the objectives under study; however in the process, certain questions arise which may be suggested for further research as follows:

i)   As the present research is confined to three districts of Mizoram, it is suggested that a study be conducted covering all districts of Mizoram so as to have a complete picture of Mizoram.

ii)   The same problem may be probed into in other states of India as there are many phenomena of the same nature in many states.

iii) Study on the perceptions of curriculum framers and policy makers who have the final say on the medium of instruction.

iv)   A study on the impact of the medium of instruction at school level on the performance of individuals pursuing professional and technical courses.

v)   A study of the effect of medium of instruction on students' anxiety.

vi)   A comparative analysis of possible underachievement in science and mathematics in relation to medium of instructions.

vii) Analytical study on teaching and learning of three languages at secondary stage in Mizo classrooms.

viii) The influence of the language of instruction on students' academic achievement in secondary schools.

ix) Impact of mother tongue on children's learning abilities and classroom teaching-comprehension at secondary level.

x) Evaluative assessment of working elementary teachers in relation to their proficiency for teaching of mathematics, science and social studies in English.

xi) Construction of attitudinal scale on medium of instruction and study of attitude of various stakeholders in different states of India.

6.11 CONCLUSIONS

Most leading countries of the world such as England, USA, France, Italy, Germany, China, and Japan and so on must have realized that effective teaching-learning condition requires discussion and interaction between pupil and teacher and among pupils themselves which is best possible through the mother tongue, and hence, adopted their own regional language or mother-tongue as medium of instruction, and also made efforts to accommodate mother-tongue medium of instruction for the minorities and immigrants in their countries. Gandhi also strongly advocated mother-tongue medium of instruction and suggested a switch-over from English medium of instruction for India. He said, "The medium of instruction should be altered at any cost, the provincial languages being given their rightful place. I would prefer temporary chaos in higher education to the criminal waste that is daily accumulating". (Ruhela, 2002)

It must be noted that the adoption of mother tongue medium could also enhance the use and demand of Mizo language in the education sector, which will in turn, contribute in the generation of employment opportunities, economic growth, thereby uplift and empowered the Mizo society. Dua (2001) as quoted by Saba (2013) has commented that language used in the educational system has far reaching implications for language development, redistribution of social power and knowledge, organisation of communication and information system, and politico-economic structure of the society. Skutnabb (1976) as quoted by Srivastava and Khatoon (1980) on the basis of her study of 700 Finnish immigrant children claims that unless a child has his mother-tongue as the instructional medium he cannot learn a second language properly. In fact, forcing second language in place where the mother-tongue has lost

status will result in double semi-lingualism in which neither of the two languages will be proficiently acquired.

Forcing students to speak English will not improve their ability to speak English. The best way to improve speaking is therefore to increase the amount of comprehensible listening and reading that students do, and the easiest and most cost effective way to make this happen is to develop libraries of interesting and comprehensible English books and recordings to supplement English class. (Krashen, 2009) as quoted by Qorro (2013).

The issue of Medium of instruction and the present condition prevailing in the state of Mizoram needs to be addressed urgently and fully as it plays a very major role in the development of education, which in turn is the development of the state, the nation, and the world at large.

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APPENDICES

Appendix I

LIST OF PRIMARY SCHOOLS CONVERTED INTO ENGLISH MEDIUM w.e.f. 25.6.2002

Sl. No	Name of School	Under SDEO	Order No. & Date of permission
1	2	3	4
1	Champhai P/S - I	Champhai	No.A.22014/4/02 - DTE(EDS) dt. 25.6.2002
2	Champhai P/S - II	Champhai	No.A.22014/4/02 - DTE(EDS) dt. 25.6.2002
3	Armed Veng 'S' P/S - II	Aizawl East	No.A. 22014/4/2002 - DTE(EDS) dt. 14.8.2002
4	Dawrpui P/S	Aizawl West	No.A. 22014/4/2002 - DTE(EDS) dt. 14.8.2002
5	Bawngkawn P/S - II	Aizawl East	No.A. 22014/4/2002 - DTE(EDS) dt. 26.8.2002
6	Govt. Chaltlang P/S - I	Aizawl East	No.A. 22014/4/2002 - DTE(EDS) dt. 25.2.2004
7	Kawnpui Govt. P/S - III (has been changed as Govt. Primary English Medium School - I vide No.A. 22014/4/2007 - DTE(EDS) of 3.4.2008 & Govt. approval No.B. 17011/5/2002 - EDN/Pt dt. 17.3.2008)	Kawnpui	No.A. 22014/4/2004 - DTE(EDS) dt. 23.6.2004
8	Sihfa P/S - II	Saitual	No.A. 22014/4/2002 - DTE(EDS) dt. 2.11.2004
9	Lunglawn Govt. P/S - I	Lunglei South	No.A. 22014/4/2005 - DTE(EDS) dt. 31.1.2007
10	E.M. P/S Ramhlun Sports Complex, Aizawl	Aizawl East	No.A. 22014/4/2007 - DTE(EDS) dt. 30.3.2007
11	Bawngkawn P/S - I	Aizawl East	No.A. 22014/4/2007 - DTE(EDS) dt. 30.3.3007
12	Rev. Thianga P/S, Bethlehem Vengthlang (reverted into Mizo	Aizawl East	No.A. 22014/4/2007 - DTE(EDS) dt. 24.7.2007
13	Govt. Chhinga Veng P/S - I	Aizawl East	No.A. 22014/4/2007 - DTE(EDS) dt. 24.7.2007
14	Chaltlang P/S - III	Aizawl East	No.A. 22014/4/2007 - DTE(EDS) dt. 2.8.2007
15	Govt. P/S - I, Mimbung	Khawzawl	No.A. 22014/4/2007 - DTE(EDS) dt. 24.12.2007
16	Govt. P/S, I.T.I.	Aizawl East	No.A. 22014/4/2007 - DTE(EDS)/ dt. 14.1.2008
17	Govt. P/S, Zodin, Kolasib	Kolasib	No.A. 22014/4/2007 - DTE(EDS) dt. 14.2.2008

SCHOOLS CONVERTED INTO ENGLISH MEDIUM w.e.f. 25.6.2002

Sl. No	Name of School	Under SDEO	Order No. & Date of permission
1	2	3	4
18	Govt. P/S - I, Kolasib	Kolasib	No.A. 22014/4/2007 - DTE(EDS) dt. 14.2.2008
19	Govt. P/S - IV, Kolasib	Kolasib	No.A. 22014/4/2007 - DTE(EDS) dt. 14.2.2008
20	Govt. P/S, Mamit	Mamit	No.A. 22014/4/2007 - DTE(EDS) dt. 14.2.2008
21	Govt. P/S, Zotlang, Aizawl	Aizawl West	No.A. 22014/4/2007 - DTE(EDS) dt. 20.3.2008
22	Govt. P/S - II, Reiek	Aizawl West	No.A. 22014/4/2007 - DTE(EDS) dt. 20.3.2008
23	Govt. P/S - II, Chhinga Veng	Aizawl East	No.A. 22014/4/2007 - DTE(EDS) dt. 20.3.2008
24	Govt. P/S, Chanmari, Aizawl	Aizawl West	No.A. 22014/4/2007 - DTE(EDS) dt. 25.6.2008
25	Govt. P/S - II, Tanhril	Aizawl West	No.A. 22014/4/2007 - DTE(EDS)/I dt. 20.1.2009
26	Govt. P/S - IV, Bawngkawn Chhim Veng	Aizawl East	No.A. 22014/4/2007 - DTE(EDS) dt. 11.2.2009
27	Govt. P/S - I, Armed Veng	Aizawl East	No.A. 22014.4.2007 - DTE(EDS) dt. 26.3.2009
28	Govt. P/S - II, Armed Veng	Aizawl East	No.A. 22014.4.2007 - DTE(EDS) dt. 26.3.2009
29	Govt. Zarkawt P/S, Aizawl	Aizawl West	No.A. 22014.4.2007 - DTE(EDS) dt. 26.3.2009
30	Govt. Maubawk P/S - I, Aizawl	Aizawl West	No.A. 22014.4.2007 - DTE(EDS) dt. 26.3.2009
31	Govt. P/S, Venghlui, Aizawl	Aizawl East	No.A. 22014/4/2007 - DTE(EDS) dt. 3.6.2011
32	Govt. P/S, Saichal	Khawzawl	No.A. 22014/4/2007 - DTE(EDS) dt. 3.6.2011
33	Govt. Bethlehem Vengthlang P/S - II, Aizawl	Aizawl East	No.A. 22014/4/2007 - DTE(EDS) dt. 17.11.2011
34	Govt. Rev. Thianga P/S, Bethlehem Vengthlang, Aizawl	Aizawl East	No.A. 22014/4/2007 - DTE(EDS) dt. 17.11.2011
35	Govt. Salem P/S, Lunglei	Lunglei South	No.A. 22014/4/2007 - DTE(EDS) dt. 17.11.2011
36	Govt. P/S - II, Bilkhawthlir	Kolasib	No.A. 22014/4/2007 - DTE(EDS) dt. 28.2.2012

LIST OF PRIMARY SCHOOLS CONVERTED INTO ENGLISH MEDIUM w.e.f. 25.6.2002

Sl. No	Name of School	Under SDEO	Order No. & Date of permission
1	2	3	4
37	Govt. P/S - III, Bilkhawthlir	Kolasib	No.A. 22014/4/2007 - DTE(EDS) dt. 28.2.2012
38	Govt. P/S - I, N. Hlimen	Kawnpui	No.A. 22014/4/2007 - DTE(EDS) dt. 28.2.2012
39	Govt. P/S - V, Kolasib	Kolasib	No.A. 22014/4/2007 - DTE(EDS) dt. 28.2.2012
40	Govt. P/S - I, Hnahthial	Hnahthial	No.A. 22014/4/2007 - DTE(EDS) dt. 28.2.2012
41	Govt. P/S - V, Kawnpui	Kawnpui	No.A. 22014/4/2007 - DTE(EDS) dt, 23.3.2012
42	Govt. P/S - I, Kawrthah	Kawrthah	No.A. 22014/4/2007 - DTE(EDS) dt. 2.4.2012
43	Govt. P/S - III, Durtlang	Aizawl East	No.A. 22014/4/2007 - DTE(EDS) dt. 7.11.2012
44	Govt. P/S, Ramhlun South, Aizawl	Aizawl East	No.A. 22014/4/2007 - DTE(EDS) dt. 7.11.2012
45	Govt. P/S, Aizawl Venglai	Aizawl East	No.A. 22014/4/2007 - DTE(EDS) dt. 7.11.2012
46	Govt. Complex P/S, Luangmual, Aizawl	Aizawl West	No.A. 22014/4/2007 - DTE(EDS) dt. 9.1.2013
47	Govt. P/S - I, Ramthar, Aizawl	Aizawl East	No.A. 22014/4/2007 - DTE(EDS) dt. 16.1.2013
48	Govt. K.T. P/S, Ramthar, Lunglei	Lunglei South	No.A. 22014/4/2007 - DTE(EDS) dt. 18.2.2013
49	Govt. P/S - IX, Kolasib	Kolasib	No.A. 22014/4/2007 - DTE(EDS) dt. 8.4.2013
50	Govt. P/S - X, Kolasib	Kolasib	No.A. 22014/4/2007 - DTE(EDS) dt. 8.4.2013
51	Govt. P/S, Borai	Kawrthah	No.A. 22014/4/2011 - DTE(EDS) dt. 3.6.2013
52	Govt. P/S - I, Tlangnuam, Aizawl	Aizawl South	No.A. 22014/4/2011 - DTE(EDS) dt. 3.6.2013
53	Govt. P/S - I, Tuikual, Aizawl	Aizawl West	No.A. 22014/4/2011 - DTE(EDS) dt. 3.6.2013
54	Govt. P/S, Venghnuai, Aizawl	Aizawl South	No.A. 22014/4/2011 - DTE(EDS) dt. 9.7.2013
55	Govt. P/S - IV, Zemabawk, Aizawl	Aizawl East	No.A. 22014/4/2011 - DTE(EDS) dt. 29.7.2013

LIST OF PRIMARY SCHOOLS CONVERTED INTO ENGLISH MEDIUM w.e.f. 25.6.2002

Sl. No	Name of School	Under SDEO	Order No. & Date of permission
1	2	3	4
56	Govt. P/S - II, Tlungvel	Aizawl East	No.A. 22014/4/2011 - DTE(EDS) dt. 12.9.2013
57	Govt. P/S - III, Venglai, Kolasib	Kolasib	No.A. 22014/4/2011 - DTE(EDS) dt. 6.12.2013
58	Govt. L.M. P/S, Ramhlun Venglai	Aizawl East	No.A. 22014/4/2011 - DTE(EDS) dt. 29.1.2014
59	Govt. P/S - II, Zotlang, Lunglei	Lunglei North	No.A. 22014/4/2011 - DTE(EDS) dt. 25.3.2014
60	Synod Home Mission School, Zawlpui	Lungsen	No.A. 22014/4/2011 - DTE(EDS) dt. 25.3.2014
61	Govt. P/S - XIV, Kolasib	Kolasib	No.A. 22014/4/2011 - DTE(EDS) dt. 25.3.2014
62	Govt. P/S, Melriat	Aizawl South	No.A. 22014/4/2011 - DTE(EDS) dt. 30.4.2014
63	Govt. P/S - I, Rengdil	Kawrthah	No.A. 22014/4/2011 - DTE(EDS) dt. 27.5.2014
64	Govt. P/S - III, Sialsuk	Aizawl South	No.A. 22014/4/2011 - DTE(EDS) dt. 27.5.2014
65	Govt. P/S - I, Electric Veng, Lunglei	Lunglei South	No.A. 22014/4/2011 - DTE(EDS) dt. 27.5.2014
66	Govt. P/S - I, Zotlang, Lunglei	Lunglei North	No.A. 22014/4/2011 - DTE(EDS) dt. 27.5.2014
67	Govt. P/S - I, Theiriat	Lunglei South	No.A. 22014/4/2011 - DTE(EDS) dt. 27.5.2014
68	Govt. P/S - II, Sairang Vengthar	Aizawl West	No.A. 22014/4/2011 - DTE(EDS) dt. 24.9.2014
69	Govt. P/S - II, Khanpui	Darlawn	No.A. 22014/4/2011 - DTE(EDS) dt. 24.9.2014
70	Govt. P/S - II, Ngopa	Khawzawl	No.A. 22014/4/2011 - DTE(EDS) dt. 24.9.2014
71	Govt. P/S V Shinyauthlah	Aizawl East	No.A. 22014/4/2011-DTE (EDS) dt. 15.12.2014

Appendix II

LIST OF MIDDLE SCHOOLS CONVERTED INTO ENGLISH MEDIUM w.e.f. 25.6.2002

Sl. No	Name of School	Under SDEO	Order No. & Date of permission
1	2	3	4
1	Govt. Vengthlang M/S, Champhai	Champhai	No.A.22014/4/02 - DTE(EDS) dt. 25.6.2002
2	DIET Practising School, Lunglei (M/S) (Re-converted into Mizo Medium vide No.A. 22014/4/2002 - DTE(EDS) dt. 7.12.2006	Lunglei North	No.A.22014/4/02 - DTE(EDS) dt. 8.7.2002
3	Mt. Hermon M/S, Ramthar , Lunglei (Deficit)	Lunglei South	No.A.22014/4/02 - DTE(EDS) dt. 8.7.2002
4	Standard M/S, Bazar Veng, Lunglei (Aided)	Lunglei North	No.A.22014/4/02 - DTE(EDS) dt. 8.7.2002
5	Lunglei Centenary Mem. M/S (LCM) Farm Veng (Deficit)	Lunglei South	No.A.22014/4/02 - DTE(EDS) dt. 8.7.2002
6	Tuithiang M/S	Aizawl East	No.A.22014/4/02 - DTE(EDS) dt. 14.8.2002
7	Dawrpui M/S	Aizawl West	No.A.22014/4/02 - DTE(EDS) dt. 14.8.2002
8	Govt. M/S, Chanmari, Aizawl	Aizawl West	No.A.22014/4/02 - DTE(EDS) dt. 30.1.2004
9	Darlawn Model M/S	Darlawn	No.A.22014/4/2007 - DTE(EDS) dt. 11.6.2007
10	Govt. M/S, Chhinga Veng, Aizawl	Aizawl East	No.A.22014/4/2007 - DTE(EDS) dt. 20.3.2008
11	Govt. M/S, Rawpuichhip	Mamit	No.A.22014/4/2007 - DTE(EDS) dt. 2.4.2008
12	Govt. Laldanga Memorial M/S, Champhai	Champhai	No.A.22014/4/2007 - DTE(EDS) dt. 23.4.2008
13	Govt. R.M. M/S, Farkawn	Champhai	No.A.22014/4/2007 - DTE(EDS)/I dt. 24.4.2008
14	Govt. Laipuitlang M/S, Aizawl	Aizawl East	No.A.22014/4/2007 - DTE(EDS) dt. 6.2.2009
15	Govt. M/S, Chaltlang	Aizawl East	No.A.22014/4/2007 - DTE(EDS) dt. 11.2.2009
16	Govt. PTC M/S, Lungverh	Aizawl West	No.A.22014/4/2007 - DTE(EDS) dt. 11.2.2009
17	Govt. Armed Veng M/S, Aizawl	Aizawl East	No.A.22014/4/2007 - DTE(EDS) dt. 26.3.2009

LIST OF MIDDLE SCHOOLS CONVERTED INTO ENGLISH MEDIUM w.e.f. 25.6.2002

Sl. No	Name of School	Under SDEO	Order No. & Date of permission
1	2	3	4
18	Salvation Army Integrated School, Kolasib	Kolasib	No.A.22014/4/2007 - DTE(EDS) dt. 6.11.2009
19	St. Peter's Middle School, Chhingchhip	Serchhip	No.A.22014/4/2007 - DTE(EDS) dt. 17.12.2009
20	Special Blind School, Durtlang (Adhoc Aided)	Aizawl East	No.A.22014/4/2007 - DTE(EDS) dt. 28.2.2012
21	Govt. P.Z. M/S, Chaltlang, Aizawl	Aizawl East	No.A.22014/4/2007 - DTE(EDS) dt. 23.3.2012
22	Falkland UPS, Zemabawk, Aizawl	Aizawl East	No.A.22014/4/2007 - DTE(EDS) dt. 23.3.2012
23	Tuikhurhlu UPS	Saitual	No.A.22014/4/2007 - DTE(EDS) dt. 23.3.2012
24	Tumpui M/S, Kolasib (Adhoc GIA)	Kolasib	No.A.22014/4/2007 - DTE(EDS) dt. 2.7.2012
25	Govt. Melriat M/S, Melriat	Aizawl South	No.A.22014/4/2007 - DTE(EDS) dt. 25.7.2012
26	Dam Veng M/S, Aizawl (Adhoc GIA)	Aizawl South	No.A.22014/4/2007 - DTE(EDS) dt. 30.8.2012
27	Govt. M/S, Ramhlun South, Aizawl	Aizawl East	No.A.22014/4/2007 - DTE(EDS) dt. 7.11.2012
28	Govt. P.K. M/S, Lunglei	Lunglei South	No.A.22014/4/2011 - DTE(EDS) dt. 12.9.2013
29	Govt. Middle School, Mission Vengthlang, Aizawl	Aizawl West	No.A.22014/4/2011 - DTE(EDS) dt. 29.1.2014
30	Govt. Middle School, Venghnuai, Aizawl	Aizawl South	No.A.22014/4/2011 - DTE(EDS) dt. 24.2.2014
31	Govt. M/S, Dawrpui Vengthar	Aizawl West	No.A.22014/4/2011 - DTE(EDS) dt. 30.4.2014
32	Govt. Muma M/S, Armed Veng	Aizawl East	No.A.22014/4/2011 - DTE(EDS) dt. 30.4.2014
33	Govt. M/S - II, E. Lungdar	N. Vanlaiphai	No.A.22014/4/2011 - DTE(EDS) dt. 30.4.2014
34	Govt. M/S, Vaivakawn	Aizawl West	No.A.22014/4/2011 - DTE(EDS) dt. 30.4.2014
35	Govt. M/S - I, Kawnpui	Kawnpui	No.A.22014/4/2011 - DTE(EDS) dt. 15.7.2014

LIST OF MIDDLE SCHOOLS CONVERTED INTO ENGLISH MEDIUM w.e.f. 25.6.2002

Sl. No	Name of School	Under SDEO	Order No. & Date of permission
1	2	3	4
36	Govt. M/S, Lunglawn	Lunglei South	No.A.22014/4/2011 - DTE(EDS) dt. 27.5.2014
37	Govt. Vengsang M/S, Champhai	Champhai	No.A.22014/4/2011 - DTE(EDS) dt. 27.5.2014
38	Govt. JNM M/S, Electric Veng, Lunglei	Lunglei South	No.A.22014/4/2011 - DTE(EDS) dt. 27.5.2014

Appendix III

PERCEPTIONS ON ISSUES RELATING TO MEDIUM OF INSTRUCTIONS

- Ellie Lallianpuii

Dear student/teacher/ parent,

Kindly tick (✓) the response to the following statements which best suited your perceptions/ attitudes towards medium of instructions at elementary level in our state. Your answers will be of great help in finding out the trend and shall be used for research purpose only.

1. Teaching, at least up to Cl-VIII should be done in Mizo medium.
   a) Agree   b) Disagree

2. English spoken class in Mizo medium school should be stressed rather than English medium teaching.
   a) Agree   b) Disagree

3. Teaching in English medium kills creativity among students.
   a) Agree   b) Disagree

4. English medium teaching is responsible for weaknesses in mathematics and science among the Mizos.
   a) Agree   b) Disagree

5. English can be learned anytime but first understanding of content is more important.
   a) Agree   b) Disagree

6. To be educated, one needs to go to English medium school.
   a) Agree   b) Disagree

7. Mizo medium school has lost its market values.
   a) Agree   b) Disagree

8. The Government should transform all the Mizo medium school to English medium school
   a) Agree   b) Disagree

9. Students from Mizo medium are not fluent in English even at maturity.
   a) Agree   b) Disagree

10. Being taught in a foreign language and having to use that language as communications throughout the day in school can create anxiety and tension among students.
    a) Agree   b) Disagree

11. A child must learn in English medium school for his future vocation.
    a) Agree   b) Disagree

12. Teachers themselves who are not fluent in English teach in English medium hampers students' understanding of content.
    a) Agree   b) Disagree

Appendix IV

SOCIO-ECONOMIC STATUS SCALE

(Modified by Ellie Lallianpuii)

By LALLIANZUALI FANAI

A. **Personal Information:**

1. Name .... Age .... Sex ....
2. Location .... Rural/Urban
3. Father's Education .... Mother's Education ....

B. **Instruction:**

On the basis of this Scale Socio-Economic Status of your family is being studied. You are required to give your information related to the question by putting tick (✓) mark in the placeholder provided against them. Since the information furnished by you would be kept confidential you should answer without any reservation. Along with the questions probable answers are given. You have to tick one of answer which most suits your family.

	Grandfather	Grandmother	Father	Mother
1) What Is the education of your family Members?				
a) University's high degree e.g. Ph.D D.Litt., D.Sc., M.D. or similar professional degree	( )	( )	( )	( )
b) Post graduate education (M.A, M.Sc, M.Com., M.Ed., M.Th.)	( )	( )	( )	( )
c) Graduate level education (B.A., B.Sc., B.Com., B.Ed., LL.B., etc) or any other Equivalent degree after P.U.	( )	( )	( )	( )
d) Higher Secondary, P.U, and other professional certificate, or any diploma after High School.	( )	( )	( )	( )
e) Middle School (Class V-VIII) or equivalent training certificate.	( )	( )	( )	( )
f) Primary education	( )	( )	( )	( )
2) What is the occupation of your family members?				
a) High Administrative (Gazetted) Officer such as Secretaries, Professors, Director, Principal of College, Associate Professor, Assistant Professor, Lecturers, Engineer, Doctor, Lawyer, Bank Manager, Managing Director of Industrial or Business House, Owner of Factory, Political Leader like MLA & MP etc.	( )	( )	( )	( )
b) Middle class professional such as Higher Secondary School Teacher, High School Teacher, Section Officer, Assistant, Research Assistant, Chemist, J.E., Wholesaler, Accountants, Renowned Artist, Shop Keeper, Instructor etc.	( )	( )	( )	( )
c) Ordinary professional, such as Clerk, Typist, Stenographer, Technicians, Laboratory Asst., Primary & Middle School Teacher, Salesman, small shopkeeper, Electricians, Owner of Small Scale Industry etc.	( )	( )	( )	( )
d) Other Professions such as Peon, Driver, Lineman, Plumber, Fitter, Mansions, Painter, Mechanics, Carpenter etc.				
e) Labourer, Kuli, unskilled workers etc.	( )	( )	( )	( )

3) **What is the Income of your family per month?**
a) Above   ₹ 1,00,001/-
b) Between   ₹ 90,001/- to ₹ 1,00,000/-   (   )
c) Between   ₹ 80,001/- to ₹ 90,000/-   (   )
d) Between   ₹ 70,001/- to ₹ 80,000/-   (   )
e) Between   ₹ 60,001/- to ₹ 70,000/-   (   )
f) Between   ₹ 50,001/- to ₹ 60,000/-   (   )
g) Between   ₹ 40,001/- to ₹ 50,000/-   (   )
h) Between   ₹ 30,001/- to ₹ 40,000/-   (   )
i) Between   ₹ 20,001/- to ₹ 30,000/-   (   )
j) Between   ₹ 10,001/- to ₹ 20,000/-   (   )
k) Between   ₹ 5,001/ - to ₹ 10,000/-   (   )
l) Below   ₹ 5,000/-   (   )

4) **What is the opinion of your friend/other about you and your family?**
a) Prosperous family   (   )
b) Middle class family   (   )
c) low class family   (   )

5) **Tick the following items which your family possesses**
a) Two wheeler (scooter, scooty, bike)   (   )
b) Four wheeler   (   )
i) Family vehicle (Private car, Gypsy, Van etc.)   (   )
ii) Commercial light vehicle (Auto rickshaw, taxi, sumo etc.) (   )
iii) Commercial heavy vehicle (Bus, Truck, JCB, etc.) (   )
c) Household commodities -
i) Personal Computer   (   )
ii) Washing machine   (   )
iii) Internet connection   (   )
iv) CRT TV   (   )
v) LED/ LCD TV (flat TV)   (   )
vi) Refrigerator (fridge)   (   )
vii) Telephone/ Mobile phone   (   )

6) a) **Does your family have its own house?**   yes/no
b) if yes, what type of house it is?
i) R.C.C Building   (   )
ii) Asbestos Cement (Tile) with G.C.I Sheet roof   (   )
iii) Bamboo wall with G.C.I Sheet roof   (   )
iv) Bamboo wall with thatched roof   (   )

7) **Do your parents hold any important post in the church?**
Father   **Mother**
a) Elder (Upa)   (   )   Chairperson (   )
b) Committee member (Tual Upa) (   )   Committee member of the women wing (   )
c) Deaconates e.g. Preacher, Sunday   Deaconates e.g. Preacher, Sunday School
School teacher, Evangelist etc. (   )   teacher. (   )

8) **Do your parents hold any**
Post in the social organisations like Y.M.A, M.H.I.P etc?   yes/no

9) a) **Does your Family subscribe daily newspaper?**
i) Regularly   (   )
ii) Occasionally   (   )
iii) Never   (   )
b) **Does your family subscribe National Newspaper?**
i) Regularly   (   )
ii) Occasionally   (   )
iii) Never   (   )

Scoring Key for SOCIO-ECONOMIC STATUS SCALE

1. Educational status

S/N	Grandfather	Grandmother	Father	Mother
a	6	6	6	6
b	5	5	5	5
c	4	4	4	4
d	3	3	3	3
e	2	2	2	2
f	1	1	1	1

2. Occupational status

S/N	Grandfather	Grandmother	Father	Mother
a	5	5	5	5
b	4	4	4	4
c	3	3	3	3
d	2	2	2	2
e	1	1	1	1

3. Income

a	12
b	11
c	10
d	9
e	8
f	7
g	6
h	5
i	4
j	3
k	2
l	1

4. Percieved family status

a	3
b	2
c	1

5. Material possession

a	1
b	
i	3
ii	1
iii	2
c	
i	3
ii	3
iii	2
iv	2
v	3
vi	2
vii	1

6. House and its type

a	1
b	
i	4
ii	3
iii	2
iv	1

7. Position in religious organisation

S/N	Father	Mother
a	3	3
b	2	2
c	1	1

8. Position occupied in the society

Yes	No
2	1

9. Subscription of newspaper

a	
i	3
ii	2
iii	1
b	
i	3
ii	2
iii	1

Appendix V

E. A chhunga thu awm te hi chhang tura hrilh i nih hma chuan i chhang tur a ni lo.

F. He booklet-ah hian chhinchhiahna emaw thai emaw i siam tur a ni lo.

G. A chhanna te chu a hranpaa siam Answer Sheet-ah i chhang tur a ni.

H. Answer Sheet-ah chuan dahkhah tur zawng zawng i

dahkhat hmasa tur a ni.

HRIATIRNA PAWIMAWHTE

1. He test booklet ah hian test chi hrang sawm a awm a, a mal te tea tih tur a ni. A tul anga entirna (practical Examples) pek a ni a, a chhân dan turah chiang hmasa phawt ang che.

2. Test problem (tih tur) tinah chhanna âwm deuh 3 emaw 4 emaw dah a ni a. I chhanna te chu a chhanna bu (Answer Sheet)-a a chhānna bik ruatah hian thai kawkalh (X) hmangin ziak ang che. A chhānna tur pakhat aia tamah 'X' i thai chuan dik lo ah ngaih a ni ang.

3. I tihsual palh chuan i chhānna chu thaidum X (black box) siam la, chutah a dang a dik ni-a i hriatah thai tha leh ang che.

4. Test tinah hian tan hun leh zawh hun sawi a ni a; "hun a tawp ta" tia hrilh i nih ve leh tawp nghal ang che.

5. Item zawng zawng chhan tum vek la, chhân harsa i tih chu kal kân la, a dang chhân chhunzawm ang che. Test pakhat tih nan hun hmang rei lutuk suh.

6. Muangchāng lovin chhāng la, tihsual erawh chu neih loh tum rawh.

7. He test booklet-ah hian engmah ziah phal a ni lo.

8. Hriatthiam loh i neih chuan test i chhân hmain zawtfiah hmasa ang che.

Tunah phek thumna en rawh

**TI TURA HRILH I NIH HMA LOH CHUAN
A LEH LAM KEU SUH ANG CHE**

Test-I

ENTIRNATE

KAIHHRUAINA: A hnuaia item tinah hian thumal pali dah a ni a. Heng zingah hian pathumte chuan inkungkaihna engemaw zawngin an nei a, thumal pakhat erawh chu a dang daih a. A danglam bika chu zawn chhuah tur a ni.

ENTIRNA

1. **A. SANGHA   B. CHAKAI   C. KAIKUANG   D. SAVA**

   Hetah hian SAVA hi thinga awm a nih bik avangin a dang nena inkungkaihna a nei lova. A dang pathumte hi chu tuia awm an ni. Chuvangin, a chhanna dik chu **D** a ni. A chhanna bu (Answer Sheet) a Test-I a phek 2 na enla Entirna (Practical Example) No. I ah **D** a inthai i hmu ang.

2. **A. BURMA   B.CHINA   C. MANIPUR   D. NEPAL**

   Hetah hian a chhanna dik chu **C** a ni. Entirna (Practical Examples) No. 2 ah nangmah in thai ang che.

   Hetiang hian phek 4 naah tihtur (Test Problem 9 i hmu anga. Answer Sheet a a chhanna tur hmun bik ruat a test phek... naah chhang ang che. He test hi minute 1½ chhunga chhan zawh tur a ni.

Test – I
(Time: 1½ Minutes)
TEST PROBLEMS

1.   A. Zawhte   B. Vawk
      C. Ar   D. Ui

2.   A. Ni   B. Pa
      C. Pu   D. Thian

3.   A. India   B. China
      C. Mizoram   D. Pakistan

4.   A. Tamdil   B. Mat
      C. Rungdil   D. Palakdil

5.   A. Chair   B. Stool
      C. Blackboard   D. Thutthleng

6.   A. Tuikuk   B. Hmar
      C. Mara   D. Pawi (Lai)

7.   A. Chhura   B. Lianchhiari Lunglentlang
      C. Lalruanga   D. Keichala

8.   A. Saikuti   B. Darpawngi
      C. Awithangpa   D. Chawngbawla

9.   A. Professor   B. Engineer
      C. Minister   D. Doctor

Test-II

ENTIRNATE

KAIHHRUAINA: A hnuaiah hian number indawt thenkhat dah a ni a. Heng number indawt inkarah hian number pakhat kimlo *inverted coma* **(')** hmanga lantir a ni a. A hnuaia number pali te atang hian number kimlo chu zawng chhuak rawh.

ENTIRNA

1. **3   6   9   12   (')**

   A. 10   B. 14   C. 15   D. 16

Hetah hian number te hi 3 zela a pun avangin i number mamawh chu 15 a ni. Tichuan chhanna dik chu **C.15** khi a ni. Tichuan number indawt dan chu 3, 6, 9, 12, 15 a ni. Answer sheet-a Test II a phek 2na en la. Entirna (Practical Example) No.1naah C inthai i hmu ang.

2. **16   15   13   10   (')**

   A. 4   B. 5   C. 7   D. 6

Hetah hian chhanna dik chu **D** a ni. Entirna (Practical Example) No.2 ah thai ve rawh le. Hetiang hian phek lehlamah tihtur 8 a awm a, minute 2 chhunga chhan zawh tur a ni.

Test – II
(Time: 2 Minutes)
TEST PROBLEMS

1. **2,   4,   6,   8,   10,   (')**
    A.11   B.12   C.14   D.15

2. **3,   7,   11,   15,   19,   (')**
    A.22   B.21   C.20   D.23

3. **5,   11,   17,   23,   29,   (')**
    A.30   B.35   C.33   D.31

4. **2,   3,   5,   6,   8,   (')**
    A.9   B.10   C.11   D.12

5. **12,   13,   10,   9,   6,   (')**
    A.4   B.3   C.5   D.1

6. **1,   2,   6,   7,   11,   (')**
    A.13   B.12   C.14   D.15

7. **6,   8,   4,   10,   (')   12**
    A.7   B.9   C.2   D.11

8. **9,   12,   10,   13,   (')   14**

    A.8   B.7   C.14   D.11

Test-III

ENTIRNATE

KAIHHRUAINA: A hnuaiah hian thumal hrang hrang dah a ni a, thumal pali dah tlar te atang hian a lehlam *(opposite)* chu zawng chhuak rawh.

ENTIRNA

1. **TUIRIL :**
   A. Sakhat   B. Lungpui   C. Vur   D. thir

   Heta thumal Tuiril *opposite* chu **Sakhat** a ni. Chuvangin chhana dik chu **A** a ni. Answer Sheet a Test III a phek 3 na en la Entirna (Practical Example) No. 1 ah A a inthai i hmu ang.

2. **KHAWCHHAK :**
   A. Hmar   B. Chhim   C. Khawthlang   D. Hnuailam

   Hetah hian **C. Khawthlang** hi chhanna dik a ni. Entirna (Practical Example) No.2-ah thai rawh le.

   Hetiang hian phek lehlamah tihtur 11 i hmu ang. Minute 2 chhunga chhan zawh tur a ni.

Test – III
(Time: 2 Minutes)
TEST PROBLEMS

1. **HRIAM:**   A. Thawl   B. Mam
                   C. Bil   D. Hlui

2. **NIPUI:**   A. Thal   B. Thlasik
                   C. Favang   D. Fur

3. **HMARLAM:** A. Thlanglam B. Chhaklam
                   C. Hmartawp   D. Chhimlam

4. **HMANGAIHNA:** A. Huatna   B. Ngilneihna
                      C. Ngainatna D. Thikna

5. **TUIFINRIAT:** A. Lum   B. Khawro
                      C. Hmuingil D. Nungchang mawi

6. **FING:**   A. Sual   B. Â
                   C. Remhria D. Thiltithei

7. **MIKHUAL:** A. Hmelma   B. Thenawm
                   C. Khawtual D. Neitu

8. **REMNA:**   A. Indona   B. Inchona
                   C. Inepna   D. Inrikrapna

9. **CHHIAHHLAWH:** A. Pa   B. Hruaitu
                      C. Awmpuitu*(A pu)* D. Kaihruaitu

10. **MO:**   A. Unaupa   B. Moneitu
                   C. Thlengtu D. Farm

11. **HMELMA:**   A. Thenawm B. Lainattu
                   C. Thian   D. Unaupa

Test-IV

ENTIRNATE

KAIHHRUAINA: A hnuaia thumal te hi a milpui (awmze thuhmun) duhthlan tur pali dah atang te hian zawng chhuak rawh.

ENTIRNA

1. **THLANG :**
   A. La   B. Lahrang   C. Nei   D. Lei

   Hetah hian **Thlang** milpui (awmze thuhmun) chu **B. Lahrang** a ni. Answer Sheet a Test IV phek 3 na enla Entirna (Practical Example) No.1 B-a inthai i hmu ang.

2. **HLIM :**
   A. Lian   B. Chawl   C. Lawm   D. Lungawi

   Hetah hian **C. Lawm** hi chhana dik chu a ni. Entirna (Practical Example) No.2 ah thai ve rawh.

   Phek lehlamah hian tihtur 9 a awm a, minute 1½ chhunga chhan zawh tur a awm.

Test – IV
(Time: 1½ Minutes)
TEST PROBLEMS

1. **CHAK:** A. Lian B. Hraw
   C. Thiltithei D. Lal

2. **PHUBALA:** A. Hmelma B. That
   C. Do D. Thungrul

3. **HUAN:** A. Ram*(enkawl bik)* B. Kuitiahna
   C. Hnathawk D. Hung

4. **ZALEN:** A. Mal B. Khuahkhirh loh
   C. Sal D. Hmasawn

5. **INNGAITLAWM:** A. Hawihhawm B. Inphahhniam
   C. Hmuingil D. Nungchang

   mawi

6. **HNUCHHAM:** A. Kutdawh B. Innei lo
   C. Rethei D. Nu leh pa nei lo

7. **NALH:** A. Ropui B. Hausa
   C. Hmuhnuam D. Mawi

8. **RIANGVAI:** A. Kalsan B. Hnawl
   C. Mal D. Rethei

9. **TLAWMNGAIHNA:** A. Mite tana hun pe B. Mahni inphat
   C. Thothang tha D. Tihtakna

Test-V

ENTIRNATE

KAIHHRUAINA: He test-ah hian thu tluantlinglo (incomplete sentence) i hmu ang. Thumal pahnih te hian inzawmna an nei ang hian thumal pathumna milpui (zawmpui) duhthlan tur thumal pali dah atang te hian zawng chhuak rawh.

ENTIRNA
1. **Silai chu Silaimu nen a inzawm angin Meikhuchhuahna chu:**
   A. Inchhung B. Meikhu C. In D. Tuiril

   Chhanna dik ber chu **B** a ni a, a chhan chu **meikhuchhuahna** chu **meikhu** nen a inzawm a ni. Answer Sheet Test V phek 4 na en la. Entirna (Practical Example) No.1 ah B a inthai i hmu ang.

2. **Sana chu hun nen a inzawm angin Meter chu:**
   A. Banrek B. Ranna C. Tiauvut D. Hlatlam

   Hetah hian **D** hi chhanna dik a ni. Entirna (Practical Example) No.2 ah thai ve rawh le.

   Hetiang hian phek lehlamah tihtur 7 i hmu ang. Minute 1½ chhunga chhan zawh tur a ni.

Test – V
(Time: 1½ Minutes)
TEST PROBLEMS

1. **Ke chu pheikhawk nen lo inzawm ta se kut chu:**
   A. Bag*(khai chi)*   B. Fai   C. Tifai   D. Kutkawr

2. **Boruak chu hip ni ta se, Tui chu:**
   A. In   B. Ei   C. Chhum   D. Lui

3. **Mizoram chu Aizawl nen inzawm ta se, Manipur chu:**
   A. Guwahati   B. Imphal   C. Shillong   D. Kohima

4. **Kawng chu kalna ni ta se, Tlang chu:**
   A. Sang   B. Thlir   C. Lawn   D. Thlawk

5. **Police chu Man (Mihring man) nen inzawm ta se, sakhaw mi chu:**
   A. Tawngtai   B. Bia   C. Zui   D. Dil

6. **Kum chu thla nen inzawm ta se, Ni (day) chu:**
   A. Chawlhna   B. Kar hnih
   C. Darkar   D. Chhun

7. **Thla (Moon) Satellite (thlalem) nen inzawm ta se, Khawvel chu:**
   A. Ni *(Sun)*   B. Planet *(Ni heltu te)*
   C. Solar *(Ni leh a vela awm te)*   D. Simeikhu

Test – VI

ENTIRNATE

KAIHHRUAINA: He test-ah hian thu tluantlinglo *(incomplete sentence)* i hmu ang. Duhthlan tur thumal pali dah atang te hian zawng chhuak rawh.

ENTIRNA

1. **India ram khawpui chu-**
   A. New Delhi   B. Mumbai   C. Chennai   D. Culcutta

   Heng zinga dik ber chu **A.New Delhi** a ni a. Answer Sheet Test VI phek 4 na en la. Entirna (Practical Example) No. 1 ah **A** a inthai i hmu ang.

2. **Kan thawk zawnga kan hip luh chu-**
   A. Carbondioxide   B.Oxygen   C.Hydrogen   D.Nitrogen

   Hetah hian **B** hi chhanna dik a ni. Entirna (Practical Example) No.2 ah thai ve rawh le.

Hetiang hian phek lehlamah tihtur 9 i hmu ang. Minute 1½ chhunga chhan zawh tur a ni.

Test – VI
(Time: 1½ Minutes)
TEST PROBLEMS

Chhimbala rawng chi hrang awm zat chu
A. 4   B. 5   C. 6   D. 7

Mihringten kan taksa a hriatna (sense) kan neih zat chu-
A. 3   B. 4   C. 5   D. 6

Kum pangaia ni awm zat chu –
A. Ni 365   B. Ni 366   C. Ni 367   D. Ni 368

Hnam lam Mizoten an hmingthan phahna chu –
A. Chai   B. Cheraw
C. Khuallam   D. Chheihlam

Mizoten rimawi kan hman lar ber chu –
A. Tingtang   B. Phenglawng
C. Khuang   D. Darkhuang

Mizoten ruaitheh nan an hman leh sa ei ber thin chu –
A. Arsa   B. Kelsa
C. Bawngsa   D. Vawksa

Hmanlai Mizo naupang ten lirthei an khalh uar ber thin chu-
A. Kalchhet   B. Tawlailir (thinga siam)
C. Thirsakawr   D. Sakawr tawlailir

Mahni ina tawng kan hman thin chu –
A. Rampumpui tawng B. Tawng tualleng
C. Pianpui tawng   D. Hmun bik (region) tawng

Hnim te an thawka an hip luh chu –
A. Carbondioxide   B. Oxygen
C. Hydrogen   D. Nitrogen

Test – VII

ENTIRNATE

KAIHHRUAINA: He test-ah hian thu tluantlinglo *(incomplete sentence)* i hmu ang. Thlan chhuah tur pali dah te zing atang hian a dik ber nia i hriat thlang chhuakin thu tluantling *(complete sentence)* ah siam rawh.

ENTIRNA

1. **Thlasik lain kawrlum chi kan hakna chhan chu-**
   A. A to avangin   B. A rih avangin
   C. A tlo avangin   D. Min tihlum avangin

Heng pali zinga dik ber chu **D**. **Min tihlum avangin** tih hi a ni. Answer Sheet Test VII phek 5 na a Entirna (Practical Example) No. 1 en la, **D** a inthai i hmu ang.

2. **Bawnghnute kan in nachhan chu-**
   A. A tui   B. A var
   C. Min ti hrisel   D. A tlawm

Heta chhanna dik chu **C** a ni. Entirna (Practical Example) No.2 ah thai ve rawh le.

Hetiang hian phek lehlamah tihtur 8 i hmu ang. He test hi Minute 1½ chhunga chhan zawh tur a ni.

Test – VII
(Time: 1½ Minutes)
TEST PROBLEMS

1. Ina Ui kan vulh nachhan chu –
   A. A No min neihsak thin   **B. Kan in an veng**
   C. Chhungkua an tihlim   **D. An sa ei atan**

2. Zana tukverh kan hawn thinna chhan chu –
   A. Pawn atangin borruak thianghlim kan dawng
   B. Boruak dai kan dawng thin
   C. Van lam en a nawn avangin
   D. Zingah hma takin kan tho thin

3. Sana tangkaina chu –
   A. Khawiah pah ken a awlsam
   B. Kan hnathawhnaah min tanpui
   C. Kan nitin nun a vawng fel
   D. Dar zat (hun) min hrilh thei

4. Tlang ramah chuan In te hi thinga sak a nihna chhan chu-
   A. A tlawm avangin   **B. An lang mawi**
   C. Lirnghing lakah a him   **D. An daih rei ber**

5. Ni eng kan mamawh na chhan chu-
   A. Ni zung chakna min pe   **B. Kan puan a tiro**
   C. Thil min hmuhtir thei   **C. Chhun siamtu a ni**

6. Chhungkaw tlem te neih thatna chhan chu –
   A. Chhungkaw tlem chu an   **B. Tute pawhin tha an ti**
   C. Enkawl a awlsam   **D. An hlim thin**

7. Dan siam a nihna chhan chu –
   A. Thunnuna kenkawhnaah   **B. Ngaihdan siamah min pui**
   C. Misual te hrem nan min pui   **D. Nun a ti ralmuang**

8. Ni (sun) hi khawchhakah a chhuak thin, a chhan chu –
   A. Lei hi Ni aiin a te
   B. Ni hian khawvel a hel kual
   C. Leiin Ni a hel
   D. Lei hi a axis-ah khawthlang atangin khawchhakah a inher kual avangin

Test – VIII

ENTIRNATE

KAIHHRUAINA: He test-ah hian thu *(sentence)* pahnih emaw pathum emaw hmanga zawhna siam a ni a. A chhanna tur chu ahnuaia thlan tur dah atang te hian zawng chhuak rawh.

ENTIRNA

1. **Rami chu Diki aiin a naupang zawk a, Sangi chu Rami aiin a naupang zawk. Tunge upa ber?**

   A. Rami   B. Sangi   C. Diki

   Hetah hian chhana dik chu **C. Diki** a ni a, Answer Sheet-a Test VIII phek 5 na en la Entirna (Practical Example) No. 1 en la, **C** a inthai i hmu ang.

2. **Muana chu Mawia hmaah a ding a, Hnuna chu Mawia hnungah a ding a. Tunge a laia ding?**

   A. Mawia   B. Hnuna   C. Muana

   Hetah hian chhanna dik chu **A. Mawia** a ni. Entirna (Practical Example) No.2 ah thai ve rawh le.

   Hetiang hian phek lehlamah tihtur 13 a awm a, minute 3 chhunga chhan zawh tur a ni.

Test – VIII
(Time : 3 Minutes)
TEST PROBLEMS

1. Sanga chu Mawia aiin a rit zawk a. Mawia chu Thana aiin a rit zawk. Tunge rit ber? **A. Mawia   B. Thana   C. Sanga**

2. Rama chu Lala aiin a tawi zawk a. Lala chu Zira aiin a tawi zawk. Tunge tawi ber?
A. Zira   B. Rama   C. Lala

3. Biaka chu Liana aiin a tlan chak zawk a, Siama chu Liana aiin a tlan chak zawk a mahse Biaka aiin a muang zawk. Tunge tlan muang ber?
A. Liana   B. Biaka   C. Siama

4. Hminghlui chu Siami aiin a upa zawk a. Mahse Rosy aiin a naupang zawk. Tunge naupang ber?
A. Hminghlui   B. Rosy   C. Siami

5. Lunglei chu Champhai aiin a te zawk a, mahse Saiha aiin a lian zawk.
A khawi nge lian ber? **A. Lunglei   B. Champhai   C. Saiha**

6. Remi chu Pari hmaah a thu a, Muani chu Pari hnungah a thu a. Tunge a laiah thu? **A. Pari   B. Remi   C. Muani**

7. Khuma chu Hnema pian hmain a piang a, Muana chu Khuma aiin a piang hmasa thung. Tunge upa ber? **A.Khuma   B.Hnema   C.Muana**

8. Examnaah Thanga chuan Rawna aiin mark a hmu hnem zawk a. Ruala chuan Rawna aiin a hmu tlem zawk. Tunge hmu sang ber?
A. Thanga   B. Rawna   C. Ruala

9. Pa pakhat hian Thawhtanni atanga chawl tannin ni 4 chhung chawlh a la a. Eng niah nge a hnaah a kir leh ang?
A. Thawhlehni   B. Zirtawpni   C. Ningani   D. Nilaini

10. Inthlannaah Kunga chuan Rama aiin vote a hmu hnem zawk a. Chawnga chuan Kunga aiin a hmu tlem zawk a, mahse Rama aiin a hmu tam. Tunge hmu tlem ber? **A. Kunga   B. Chawnga   D. Rama**

11. Inbuanah Thanga'n Vuana a hneh a, mahse Chala'n Thanga a hneh thung a. Tunge chak ber?   **A. Chala   B. Vuana   D. Thanga**

12. Thlakhat-a ninganaah Pathianni awm se, a ni zawmpakhatna chu eng ni nge?
A. Zirtawpni   B. Inrinni   C. Pathianni   D. Ningani

13. Darkar thum chhungin Para'n hna a thawk zo va. Hruaia'n chu hna vek chu darkar 5-ah a zo va. Chutiang hna tho thawk tur chuan Khuma chuan Para aiin a duh rei a mahse Hruaia aiin a duh tlem zawk. Tunge hna chu zo hmasa ber?
A. Khuma   B. Hruaia   C. Para

Test – IX

ENTIRNATE

KAIHHRUAINA: He test-ah hian chhiarkawp chawh tur thu (sentence) ziah a ni a. A hnuaia duhthlan tur pali dah atang te hian a chhanna zawng chhuak rawh.

ENTIRNA

1. **Pen pakhat hi Rs.50 ni ta se, Rs.500 in pen engzatnge a lei theih ang?**

   A. 8   B. 9   C. 10   D.12

   Hetah hian chhana dik chu **C. 10.** Answer Sheet- a Test IX phek 6 na en la Entirna (Practical Example) No. 1 en la, **C** a inthai i hmu ang.

2. **Heng number te zingah hian khawi number hi nge danglam bik?**

   A. 25   B. 15   C. 30   D. 37

   Hetah hian **D** hi chhanna dik a ni. Entirna (Practical Example) No.2 ah thai ve rawh le.

   Hetiang hian phek lehlamah tihtur 12 a awm a, minute **2½** chhunga chhan zawh tur a ni.

Test – IX
(Time: 2½ Minutes)
TEST PROBLEMS

1. Arpui pakhat kg. 1½ a rit nit a sela, Arpui 6 rih zawng chu-
   A. 6 kgs.   **B. 9 kgs.**   **C. 10 kgs.**   **D. 12 kgs.**

2. Chawlhkar sarih leh ni sarihah hian ni engzat nge awm?
   A. Ni 54   **B. Ni57 C. Ni 56**   **D. Ni 58**

3. Thawhtanni atanga Pathianni inkara ni awm zat chu-
   A. Ni 2   **B. Ni 1**   **C. Nil**   **D. Ni 7**

4. Bus pakhatin mi 32 a phur thei a, mi 160 phur turin Bus engzat nge ngai?
   A. Bus 4   **B. Bus 5**   **C. Bus 6**   **D. Bus 7**

5. Rs. 51,600 hi Rs. 100 note hlirin thleng tai la 100 note engzat nge ngai?
   A. 516   **B. 160**   **C. 600**   **D. 615**

6. Naute pakhat chu dar 8:00pm atangin a mu tan a, darker 2½ a muhil a. Dar engzatah nge a thaw hang?
   A. 9:45pm   **B. 10pm**   **C. 10:30pm**   **D. 11:15pm**

7. Thlawhna chuan zan dar 11:30pm ah Delhi a chhuahsan a, a tuk zing dar 4:30am ah London a thleng a. Engtia rei nge a thlawh?
   A. 4½ hrs.   **B. 5½ hrs.**   **C. 6 hrs.**   **D. 5 hrs**.

8. Khawi hi nge a dang pathumte aia danglam bik?
   A. 10   **B. 11**   **C. 15**   **D. 16**

9. A=2, B=3, C=4 ni ta se, A × B × C= tlukpui zawng chhuak rawh.
   A. 20   **B. 26**   **C. 24**   **D. 22**

10. Pa pakhat hian zing dar 6:30am ah hna thawk tanin tlai dar 5:30pm ah a zo a. Darkar engzat nge a thawh?
    A. 11hrs.   **B. 12hrs.**   **C. 10hrs.**   **D. 13hrs.**

11. Classroom-ah thutthlengsei 25 a awm a. Thutthleng pakhatah naupang 5 zel an thu a, naupang engzat nge chu room-ah chuan awm?
    A. 135   **B. 130**   **C. 125**   **D. 140**

12. Triangle △ABC ah ∠A=60° niin, ∠B=30° ni ta se C chu degree engzat nge ni ang?   **A. 45°**   **B. 90°**   **C. 120°**   **D.75°**

Test – X

ENTIRNATE

KAIHHRUAINA: Hetah hian thumal/number dahkhawm i hmu ang. A hnuaia duhthlan tur pali atang hian thumal/number zawng chhuak rawh.

ENTIRNA

1. Thumal **GATE** hi number a thlakin 3245 ti ta se, EAT chu engtia thlak tur nge?

   A. 524   B. 542   C. 425   D.452

   Hetah hian a dikna chu **A. 524** a ni. Answer Sheet- a Test X phek 6 na en la, Entirna (Practical Example) No. 1 **A** ah inthai i hmu ang.

2. Ziah dan 123 hi **HEN** ti a ziah a ni in, 546 chu **COW** tia dah a ni a. Chutiang hmang chuan 246 han ziak teh.

   A. NWO   B. WON   C. NOW   D. WNO

   Hetah hian chhanna dik chu **C. NOW** a ni. Entirna (Practical Example) No.2 ah thai ve rawh le.

Hetiang hian phek lehlamah tihtur 14 a awm a, minute 3 chhunga chhan zawh hman tur a ni.

Test – X
(Time : 3 minutes)
TEST PROBLEMS

1. NET hi 235 a nih chuan, TEN chu engtia ziah tur nge?
    A. 523   B. 325.   C. 532   D. 352

2. MOON hi 3556 a nih chuan, NOON hi engtia ziah tur nge?
    A. 6556   B. 6565   C. 6655   D. 5665

3. BLACK hi 34589 a nih chuan, BACK hi engtia ziah tur nge?
    A. 3598   B. 3859   C. 3958   D. 3589

4. INDIA hi 35432 a nih chuan, AID chu engtia ziah tur nge?
    A. 234   B. 243   C. 342   D. 324

5. CHEAT hi 12345 a nih chuan, TEA chu engtia ziah tur nge?
    A. 543   B. 534   C. 453   D. 435

6. Number 5 chu V ti a dah a ni a, 20 chu XX ti a dah a ni a.
    Engtin nge 25 hi chutiang hmang chuan kan ziah ang?
    A. XVX   B. VXX   C. VXV   D. XXV

7. Number 10 chu X ti a dah a ni a, 100 chu C ti a dah a niin 1000
    chu M ti a dah a ni leh a. Engtinge 1110 hi kan ziah ang?
    A. MCX   B. MXC   C. XMC   D.CXM

8. 24 hi IT a ni a, 36 hi ON a ni a, 57 chu ME a nih chuan 647 chu-
    A. ENT   B. TEN   C. NET   D. NTE

9. 136 hi PEN a ni a, 265 chu INK. TAG chu 897 a nise 823 chu-
    A. TEI   B. TIE   C. IET   D. EIT

10. Number 356 chu CAT a ni a, 478 chu DOG a ni. 8756 chu-
    A. GAOT   B. GTOA   C. GOAT   D. GOTA

11. GIVE hi 5137 a nih a, BAT hi 924 a nih chuan GATE chu-
    A. 5427   B. 5724   C. 2547   D. 5247

12. HEAD chu 3214 a ni a, WRIST chu 56987 a nih chuan 3196 chu-
    A. HARI   B. HIAR   C. HAIR   D. HRIA

13. ROSE hi 6821 a ni a, CHAIR chu 73456 a ni a, SEARCH chu-
    A. 246173   B. 214673   D. 214763   C. 216473

14. Number 294 chu NUT a ni a, 371 chu MAP a ni a. 1972 chu-
    A. PUAN   B. PAUN   C. PNAU   D. PUNA

Verbal Test of Creative Thinking by Baqer Mehdi

(Translated into Mizo by Ellie Lallianpuii)

Please fill the following information (A hnuai ami te hi dah khat rawh le)

Name (Hming) ....

Class (Pawl) ....

Age (Kum) ....

Sex (Mipa nge hmeichhia) ....

Father's / Guardian's Name (Pa / Enkawltu hming) ....

Occupation (Eizawnna)..

Name of Institution (Sikul hming) ....

Address (khua leh veng) ....

Rural / Urban (Thingtlang / Khawpui) ....

Date (Ni) ....

INSTRUCTIONS

In this booklet you will find mentioned some Interesting problems which will require the use of your thinking ability and imagination to solve them. The purpose is to see how quickly and imaginatively you can think under situations which require novel ways of dealing with them. Read each problem carefully and apply your best thinking in giving the responses. *Write your responses either in English or in your mother tongue.* Responses have to be given briefly but clearly in the space provided under each problem. Give a serial number to each of your responses. There are no right or wrong responses to any of these problems. Therefore use your imagination to think of as many responses as you can.

The problems are divided into *Four Activities.* Each Activity is separately timed. Within the time-limit for each Activity, you may work on the different problems according to our speed. When you finish one problem, go to the next. If necessary, you may return to the previous one again for any addition you would like to make. Remember that you have not to go the next Activity until the time for the first Activity is over and you are told tc proceed further.

At the end you will be given 5 minutes extra time, which you may use at any problem of any Activity in which you want to do additional work.

Please do not omit any problem.

KAIHHRUAINA

He lehkhabute ah hian zawhna tlem rilru ngaihtuahna hmanga chan tur a awm a. He zawhna in a tum ber chu i thil hriatsa nilovin ngaihtuahna i neih thui leh thui loh te i rilru chak dan te hmuh chhuah a ni. *Chuvangin ngun taka ngaihtuahin sap tawng emaw mizo tawng emaw in tha takin i chhang dawn nia.* Tawi fel takin a zawhna hnuaiah zel a chhanna ziah tur a ni a, chhanna pakhat aia tam chu number pe in a indawtin i ziak dawn nia. Chhanna dik leh dik lo a awm lova, uluk taka ngaihtuahin chhanna tam thei ang ber ziah i tum dawn nia.

Zawhna te hi *Activity li (4)* ah then a ni a, activity tin hian chhan theih hun chhung an nei theuh a, hun in a daih phawt chuan i duh ang thlap a tha in i chhang thei ang. Zawhna pakhat chhan zawhah a dawtah i kai zel ang a, belh duh i neih chuan i chhan tawh sa pawh i chhan belh thei ang. Activity pakhat atana hun tiam chhung a ral hma leh a dawta kai tura hrilh i nih hma chu activity dang chhan awih a ni lo.

I chhan zawh vekah minute 5 hun pek belh i ni dawn a, i duh lai lai i chhanna kha i belh thei ang.

Zawhna hi hmaih miah lova chhan kim vek tur a ni.

ACTIVITY 1

INSTRUCTIONS

On this and the next page, you have been given some situations which will appear to you impossible. You have to think what would happen if such situations actually arise.

Give as many ideas as may come to your mind but try to think as many novel ideas as you possibly can. Ideas which you think no one else might have thought of what would be the best. Write your responses in the space provided for.

You will be given 15 MINUTES for this activity. After every five minutes you will be told the time so that you may move on to the next problem in the activity.

An example has been given which will help you to know what you have to do.

EXAMPLE

Question: **What will happen if birds and animals start speaking like man?**
Responses: (i) This world will change into a different kind of society.
(ii) New leaders will emerge from amongst the animals.
(iii) It is possible that a donkey will become our leader.
(iv) It is also possible that he becomes our Prime Minister.
(v) Men may confide their secrets to their animal friends, etc.

KAIHHRUAINA

Hetah hian a tak taka thleng thei lo tura i ngaih zawhna te a awm a, a takin lo thleng dawn se engtin nge ni ang tih kha i ngaihtuahna la i chhang dawn nia.

Chhana tam thei ang ber ngaihtuah chhuah tum la, thil thar midangin an la ngaihtuah chhuah lova i rin kha ngaihtuah chhuah i tum dawn nia.

Activity 1-na ah hian minute 15 zel hun i hmang thei ang a, minute 5 dan zelah zawhna dawt a i kai theih nan hun hriattir i ni ang.

Chhan dan tur i hriat theih nan entirna hi ngun takin en rawh le.

ENTIRNA

Zawhna : **Ransa leh sava te hi mihring angin tawng thei ta se eng thil nge thleng ang?**
Chhana : (i) Kan khawtlang nun hi a lo danglam hle ang.
(ii) Ransa te atang hian hotu thar an lo chhuak ang.
(iii) Sabengtung te pawh kan hotu an lo ni maithei a ni.
(iv) Kan Prime Minister pawh a ni thei ang.
(v) Mihring ten kan thuruk te kan ransa thian te kan hrilh ve ang.

Problems 1. What will happen if man flies like birds?

Zawhna 1-na : Mihring hi sava angin thlawk thei ta se eng thil nge thleng ang?

Answer (Chhanna) -

Problems 2. What will happen if your school is put on wheels?

Zawhna 2-na : In sikul hian ke lirthei nei ta se engthil nge thleng ang?

Answer (Chhanna) -

3. What will happen if man does not require any food to eat?

Zawhna 3-na : Mihring tan hian chaw ei tul ta lo se engthil nge thleng ang?

Answer (Chhanna) -

ACTIVITY 2

INSTRUCTIONS

On this and the next page, you have been given names of certain things which could be used in many different ways. You have to think in how many different and new ways the things may be used.

Write as many uses as you can, but to try to think also those which are novel, that is, those which you think no one else might have thought of.

You will be given 12 minutes for this activity. After every four minutes you will be told the time so that you may move on to the next item in the activity.

Below is given an examle which will help you to know what you have to do.

Example: **News-paper**

Uses: (i) To read the news.
(ii) To make paper Toys.
(iii) To get protection from the sun.
(iv) To wrap something.
(v) To cover a dirty place, etc.

KAIHHRUAINA

Hetah hian thil hming hrang hrang ziah lan a ni a, chung te chu a hmanna chi i hriat hrang hrang te leh a hmanna awm thei a i rin hrang hrang te i ziak dawn nia.

Chhanna tam thei ang ber ziah tum la, chutah chuan tuma la hriat loh ngaihtuah chhuah teuh i tum dawn nia.

Activity 2-na ah chhan nan hian minute 12 i nei a, minute 4 zel a ral hunah zawhna dawta i kai theih nan hun hriattir i ni ang

I chhan thiam theih nan entirna hi en rawh le

ENTIRNA : CHANCHINBU

Hmanna : (i) Chanchinthar chhiar leh hriat nan
(ii) Lehkha hmanga khalh chi siam nan
(iii) Ni sa in min em tur in dan nan
(iv) Thil fun nan
(v) Thil bal khuh hnan nan

Problems 1. Piece of Stone

Zawhna 1-na : Lungte

Answer (Chhanna) -

Problems 2. Wooden stick

Zawhna 2-na : Hmawlh

Answer (Chhanna) -

3. Water

Zawhna 3-na : Tui

Answer (Chhanna) -

ACTIVITY 3

INSTRUCTIONS

On this and the next page, you have been given pairs of world which can be related to each other in many different ways. You have to think in how many different and new ways are they related.

Write as many relationships as you can, but also try to think those which are novel, that is, those which you think no one else might have thought of.

You will be given 15 minutes for this activity. After every 5 minutes you will be told the time so that you may move on to the next problem in the activity.

Below is given an example which will help you to know what you have to do.

Example: Man and animal

Relationship: (i) Both have life.
(ii) Both need food and water.
(iii) Both can fall ill.
(iv) Both are afraid of enemy.
(v) Both have the experience of feeling cold and hot, etc.

KAIHHRUAINA

Hetah hi chuan khawvela thil chi hrang pahnih inanna leh inlaichinna nei te tarlan an ni dawn a.

Eng ang inanna leh inlaichinna nei thei nge an nih a tam thei ang ber, mi la ngaihtuah chhuah loh tur te ziah i tum dawn nia.

He activity atan hian minute 15 zel i hmang thei ang a, minute 5 dan zelah zawhna danga i kai theih nan hun hriattir i ni ang.

Chhan dan tur i hriat theih nan entirna hi en rawh le.

ENTIRNA : Mihring leh Ransa

Inanna: (i) Nunna an nei ve ve
(ii) Tui leh chaw n mmawh ve ve
(iii) An na thei ve ve
(iv) Hmelma an hlau ve ve
(v) Vawt elh lum an hre thei ve ve

Problems 1. Tree and House

Zawhna 1-na : Thingkung leh In

Answer (Chhanna) -

Problems 2. Chair and Ladder

Zawhna 2-na : Thuthleng leh Leilawn

Answer (Chhanna) -

Problems 2. Air and Water

Zawhna 2-na : Boruak leh Tui

Answer (Chhanna) -

ACTIVITY 4

INSTRUCTIONS

Just keep in mind a simple model of a horse. You have to imagine in what ways you can change this simple model into an iteresting and novel one for children to play with. You may think of adding any number of parts or accessories in order to make it really interesting and fascinating for children. Do not bother about the cost of the new parts or accessories that you would like to use in order to make the toy model interesting and fascinating for children.

Write all the ideas which come to your mind in a serial order in the space given below.

You will be given 6 minutes for this activity.

KAIHHRUAINA

I rilru in sakawr lem han ngaihtuah la, chutah chuan naupang tana khalh leh infiampui chakawm tak a nih theih nan engtia siam danglam leh eng eng te nge belh theih ang tih i ngaihtuah dawn nia. A senso hautak tur emaw a harsatna lam ngaihtuah miah lovin, eng ang thil belhin nge i siam danglam theih dan tur zawng zawng te ngaihtuah la.

I Idea hrang hrang te chu a phek awl ah hian number pe in i a tam thei ang ber i ziak thla dawn nia.

Hemi chhan nan hian minute 6 pek i ni ang.

Chhang rawh le

Appendix VII

TEACHER'S PROFILE SHEET FOR MIZO MEDIUM ELEMENTARY SCHOOL TEACHER

- Ellie Lallianpuii

Dear teacher,

Kindly responds (✓) to the following which best suited your profile. Your answers will be of great help in finding out the trend of teachers' profile in our state and shall be used for research purpose only

Trained/ Untrained	Trained (B.ed/ D.El.Ed)		Untrained			
Age Group	20-30	31-40	41-50		51- retirement	
Educational Qualification	HSLC	HSSLC	Bachelor Degree	Master Degree	M.Phil	Ph.D
Teaching experience	Less than 5 years	5-10 years	11-20 years	21-30 years	31-40 years	
Gross Salary (Per month)	Below 10,000	Between 10,001 – 30,000	Between 30,001 – 50,000	Between 50,001- 70,000	Above 70,001	
Nature of appointment	Regular		Contract		Part time	
Product of English/ Mizo medium	English medium			Mizo Medium		

Appendix VIII

TEACHER'S PROFILE SHEET FOR ENGLISH MEDIUM ELEMENTARY SCHOOL TEACHER

- Ellie Lallianpuii

Dear teacher,

Kindly responds (✓) to the following which best suited your profile. Your answers will be of great help in finding out the trend of teachers' profile in our state and shall be used for research purpose only

Trained/ Untrained	Trained (B.ed/ D.El.Ed)			Untrained		
Age Group	20-30		31-40	41-50		51- retirement
Educational Qualification	HSLC	HSSLC	Bachelor Degree	Master Degree	M.Phil	Ph.D
Teaching experience	Less than 5 years	5-10 years	11-20 years	21-30 years		31-40 years
Gross Salary (Per month)	Below 10,000	Between 10,001 – 30,000	Between 30,001 – 50,000	Between 50,001- 70,000		Above 70,001
Nature of appointment	Regular		Contract		Part time	
Product of English/ Mizo medium	English medium			Mizo Medium		
Fluency of Teaching in English	Excellent		Good	Average		Poor

Appendix IX

TESTS FOR UNDERSTANDING OF BASIC CONCEPTS RELATING TO SCIENCE
- Ellie Lallianpuii

*(Dear students, this is a simple test to find out your understanding of basic concept in Science which is to be analysed only for research purpose. **Attempt all the questions and if not possible, clearly state the reason as: a) do not understand the language of the statements, or b) Understand the question but do not know the answer.)***

1.   Explain why our hands become warm when we touch a hot object.
Ans:

2.   Describe briefly the formation of soil.
Ans:

3.   Explain how a pitcher plant procures its food.
Ans:

4.   Indicate why clayey soils are good for making pots.
Ans:

5.   Explain why ice packed in saw-dust does not melt quickly.
Ans:

6. Two different fibres are burning. One burns with a flame, the other melts fast and then burn. Identify which one is a natural fibre.

Ans:

7. Prove with example that air is a bad conductor of heat.

Ans:

8. Describe how second-hand smoke affects our health.

Ans:

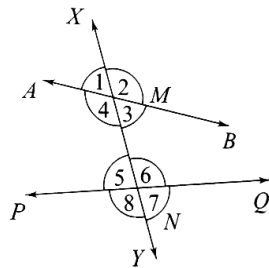9. Explain how camels and lizards adapt themselves on hot desert.

Ans:

10. Give reason why we cannot see the sun when an opaque object is placed between the sun and our eye.
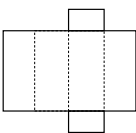
Ans:

Appendix X

TESTS FOR UNDERSTANDING OF BASIC CONCEPTS RELATING TO MATHEMATICS

- Ellie Lallianpuii

*(Dear students, this is a simple test to find out your understanding of basic concept in Science which is to be analysed only for research purpose. **Attempt all the questions and if not possible, clearly state the reason as: a) do not understand the language of the statements, or b) Understand the question but do not know the process).***

1. Choose the answer which indicates the appropriate sign:$(-8) + 3 =$?

Ans: +5   b) -5 c) +11   d) -11

2. $1.121 \times 14.12 = 1582852$

    In the above equation, choose the appropriate decimal point given from the followings:

Ans: a) 15.82852   b) 158.2852   c) 1582.852   d) 1.582852

3. Explain how x can be predicted by balancing the equation : $x - 8 = 12$

Ans:

4. Sanga buys a bicycle for Rs.2000 and sells it for a profit of 30%. He wants a new table worth Rs.2500. compare the selling price of the bicycle with price of the table and explain whether he will be able to buy the table with the selling price of the bicycle.

Ans:

5. The base of a right angle triangle is 12cm. One of its legs is 5cm. Identify the length of the hypotenuse from the following options:

Ans: a) 13cm   b) 5cm   c) 15cm   d) 14cm
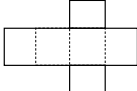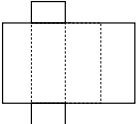
6.   Which of the following could be interior alternate angle?

Ans: a)   1, 2 and 8, 7
      b)   1, 4 and 5, 8
      c)   2, 3 and 6, 7
      d)   4, 6 and 3, 5

7.   Compare the given cube with the given options and choose the most appropriate net matched of the cube.
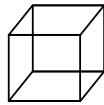
Ans: a)   b)   c)

8.   Convert 1 km^2 in m^2, and get
Ans: a) 1000 m^2 b) 10000 m^2 c) 1000000 m^2 d) 100000 m^2

9.   The radius of a circle is denoted as r from the following answer. Interpret how r is related with diameter of a circle.

Ans: a) $2\dfrac{r}{2}$ b) r^2 c) $\dfrac{1}{r}$ d) $2r$

10.   Kima collected data about the favourite colours of people for their car as :

Colour of car	:	Red	Black	white	Grey
No. of selections	:	10	27	12	10

Here, the colour of the car chosen by maximum number of people can be described as follows:

Ans: a) Mean   b) Median   c) Mode

Appendix XI

TESTS FOR UNDERSTANDING OF BASIC CONCEPTS RELATING TO SOCIAL SCIENCE

- Ellie Lallianpuii

*(Dear students, this is a simple test to find out your understanding of basic concept in Social Science which is to be analysed only for research purpose. **Attempt all the questions and if not possible, clearly state the reason as: a) do not understand the language of the statements, or b) Understand the question but do not know the answer.)***

1.   Describe the importance of a port.
Ans:

2.   Explain the use of a map.
Ans:

3.   Explain how human can disturb ecological balance.
Ans:

4.   Differentiate between focus and epicentre.
Ans:

5.   Identify the causes of Green-House Effect.
Ans:

6. Distinguish between weather and climate.
Ans:

7. Indicate the causes of less vegetation in desert.
Ans:

8. Illustrate with example the importance of communication for development.
Ans:

9. Express your preference of the types of government with respect to dictatorship or democracy.
Ans:

10. Explain the importance of media in a democratic country.
Ans:

Appendix XII

NOTIFICATION

Dated Aizawl, the 27th July, 2016

On the recommendation of Education Reforms Commission, Mizoram and in the interest of public service, the Governor of Mizoram is pleased to order the use of English as a Medium of Instruction from Class VI onwards in all the Government Schools and Government-Aided Schools commencing from the academic session of 2017-2018.

Sd/- P. LALCHHUANGA
Secretary to the Government of Mizoram
School Education Department

Memo No.B.12011/1/2012-EDN(SC)   :   Dated Aizawl, the 27th July, 2016

Copy to:-

1. Secretary to the Governor, Mizoram.
2. Principal Secretary to Chief Minister, Mizoram.
3. P.S. to Speaker/Ministers/Deputy Speaker/Minister of State/ Parliamentary Secretaries, Mizoram.
4. Sr. P.P.S to Chief Secretary, Govt. of Mizoram.
5. All Administrative Departments/ Heads of Departments.
6. Controller, Printing & Stationery, Mizoram with 6 spare copies for publication in the Mizoram Gazette.
7. Director, School Education/ SCERT, Mizoram.
8. Secretary, MBSE, Mizoram.
9. State Project Director, SSA, Mizoram
10. Guard File.

(KHIANGLIANMAWII)
Under Secretary to the Govt.of Mizoram
School Education Department.

Memo No.F.23015/3/2016-DTE(EDN)   :   Dated Aizawl, the 1st March 2017

Copy to:-

1. All District Education Officers for wide circulation under their jurisdictions
2. All Sub-Divisional Education Officers for wide circulation under their jurisdictions
3. All DPC, SSA for wide circulation under their jurisdictions

SUB-DIVISIONAL EDUCATION OFFICER
CHAMP...... ......ORAM
Receipt No. 1064
File No. I 17011/1/2015
Date 7.3.2017

(K. LALTHAWMAWIA)
Director of School Education
Govt.of Mizoram

PARTICULARS OF THE CANDIDATE

NAME	:	ELLIE LALLIANPUII
DEGREE	:	Ph.D
DEPARTMENT	:	Education
TITLE OF THESIS	:	Medium of Instructions at School Level in Mizoram: Policy Review, Impact on Academic achievement and Perceptions of Stakeholders
DATE OF ADMISSION	:	10.08.2009
YEAR OF COMPLETION OF COURSE WORK	:	2009 (Grade 'O')
COMMENCEMENT OF THESIS	:	04.06.2010
APPROVAL OF RESEARCH PROPOSAL		
1. BOS in Education	:	20.05.2010
2. School Board	:	04.06.2010
REGISTRATION NO.	:	MZU/ Ph.D/ 318 of 04. 06.2010
DUE DATE OF SUBMISSION	:	04.06.2015
EXTENTION (if any)	:	Up to 04.06.2017