

**EKLAVYA MODEL RESIDENTIAL SCHOOLS IN
MIZORAM: AN ANALYTICAL STUDY**

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF DOCTOR OF
PHILOSOPHY**

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MZU REGISTRATION NO.: 1702969

Ph.D. REGISTRATION NO.: MZU/Ph.D./1759 of 28.08.2021



**DEPARTMENT OF EDUCATION
SCHOOL OF EDUCATION
SEPTEMBER, 2024**


**EKLAVYA MODEL RESIDENTIAL SCHOOLS IN MIZORAM:
AN ANALYTICAL STUDY**

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**In partial fulfillment of the requirement of the Degree of Doctor of Philosophy
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CERTIFICATE

This is to certify that the thesis entitled, “*Eklavya Model Residential Schools in Mizoram: An Analytical Study*” submitted by N. LALPIANPUIA, having Regn. No. MZU/Ph.D./1759 of 28.08.2021 to the Mizoram University for the degree of Doctor of Philosophy in Education has been completed by his under my guidance and supervision. The work done by the candidate is the original one and it has not been submitted to any other university or Institution for the award of any degree or diploma and it is within the area of registration.

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DECLARATION

I **N. LALPIANPUIA**, hereby declare that the subject matter of this thesis is the record of work done by me, that the contents of this thesis did not form basis of the award of any previous degree to me or to do 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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ACKNOWLEDGEMENT

I am grateful to the Almighty God for His endless blessings without which this research work would not have seen the light of the day.

I am indebted to my supervisor Prof. Loknath Mishra, Department of Education, Mizoram University for his cherishment in my Ph.D journey. I am grateful for his invaluable guidance, robust motivation and constructive suggestions. This thesis would not have been completed without his keen interest and continuous support.

I extend my heartfelt gratitude to Prof. Lalhriatpuii, Department of Economics, Mizoram University for her cordial interaction, reinforcement, motivation and encouragement towards my research. She is one of the cornerstones for the completion of my thesis.

I am profoundly thankful to all the principals, teaching staff, non- teaching staff and students from various Eklavya Model Residential Schools (EMRS) in Mizoram who contributed their valuable responses for the development of my research.

I am grateful to respected Prof. Lallianzuali Fanai, Principal, Institute of Advanced Studies in Education (IASE) for her prayers, supports and inspiration during the period of my research.

Finally, I am indebted to my mother for her constant prayers and care and my father who paced me to this journey but lost his life during the course work of my research journey.

I dedicated this research work to my father, N. Doliana (1950-2021).

(N. LALPIANPUIA)

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CHAPTER I

INTRODUCTION

1.0 Introduction:

Education plays a pivotal role in equipping individuals with the skills necessary for a fulfilling life, making it indispensable for those still marginalized in our society. It is our duty to ensure an inclusive and high-quality education for all, enabling participation in the educational system and fostering success. Education has the potential to empower those in underprivileged, marginalized circumstances (Dreze and Sen, 2003). By providing proper knowledge, skills, and information, quality education can contribute significantly to the holistic development of individuals, families, and societies (Wamboye et al, 2015).

Scheduled Tribes (STs), commonly known as 'Adivasis,' are one such marginalized group, officially recognized as the most educationally disadvantaged community. Given that many tribal communities reside in remote, inaccessible areas, ensuring equitable access to quality education presents a formidable challenge.

Children from various tribal backgrounds require special attention to ensure their holistic development through equitable access to quality education, given their unique social and cultural contexts. Despite efforts from various stakeholders, including the government, educators, leaders, and organizations, significant inequalities persist in educational opportunities for marginalized children, particularly those from tribal communities.

In the realm of inclusive education, equity is paramount, ensuring that all students, regardless of their backgrounds, have access to necessary educational resources and rigorous academic standards throughout their formal education. Establishing a sustainable educational environment centered on equity is crucial for students to acquire the knowledge and skills essential for meaningful participation in society. Schools catering to tribal education, in particular, require additional support in terms of human resources, funding, infrastructure, and other relevant resources to enhance

readiness and provide fair, equitable assistance to tribal students. Identifying barriers to school activities and addressing resource gaps are urgent tasks to meet the learning needs of tribal students effectively.

Recognizing the correlation between quality education and quality of life, the Government of India (GOI) introduced the Eklavya Model School (EMRS) scheme, modeled after the Jawahar Navodaya Vidyalaya (JNV), to provide residential schooling facilities for Scheduled Tribes (STs) students. The EMRS scheme aims to offer quality education to ST students from underprivileged areas, empowering them to benefit from reservations in higher education and secure employment opportunities while also fostering their role as change agents within their communities, as outlined in the EMRS Guidelines (2010).

Nevertheless, significant challenges persist in tribal education, including high dropout rates, low academic achievement levels, limited participation of girls, and difficulties in adapting to the school system. Additional issues concerning tribal students and EMRS include resource management, inadequate funding, and a shortage of teachers tailored to the needs of local tribal communities.

1.1 Programmes of MoTA for Promotion of Tribal Education:

The various measures taken up for the upliftment of the tribal people are usually divided into three categories: (i) protective, (ii) mobilization, and (iii) developmental. The Protective measures include formulation of laws by the concerned states to safeguard the rights and interests of the tribal community in the form of restoration of tribal land rights, providing special administration in the scheduled tribal areas (Articles 244 and 244a in the 5th and 6th schedule of the Indian Constitution). Mobilization refers to the reservation extended to the tribal communities in the domains of politics, government employment and educational institutions. Developmental measures aim at programmes and activities that are initiated for promoting the welfare and development of the tribal people. In order to attract tribal children towards education and motivate their parents to avail of incentive schemes for their children's education, the Ministry of Tribal Affairs has launched from time

to time several programmes and schemes that reflect government's commitment to educationally uplift the tribal communities. Some major schemes are described below:

Hostels for ST Girls and Boys –The scheme aims to promote literacy among ST students by providing hostels to such students, who would otherwise have been unable to continue their education. The hostels are provided as a part of educational institutions or in the close vicinity of such institutions. While the Scheme of Hostels for ST Girls is in operation since the 3rd Five Year Plan, the Scheme for of ST Boys was started with effect from the year 1989-90. During the 10th Five Year Plan both the schemes have been merged into a single scheme.

Ashram Schools – The scheme aims to promote expansion of educational facilities for Scheduled Tribe students including Primitive Tribal Groups by providing residential facilities in an environment conducive to learning. The scheme covers all the Tribal Sub-Plan areas of the country spread over 22 States and 2 Union Territories. The running and maintenance of the Ashram Schools is the responsibility of the State Government/ UT concerned.

Post-Matric Scholarship – Launched in 2010, the objective is to provide financial assistance to the Scheduled Tribe students studying at post-matriculation or post-secondary levels to enable them to complete their education. The scheme is open to all ST students whose parents' annual income is Rs.2.50 lakh or less and the scholarships are awarded through the Government of the State/ Union Territory where the student is domiciled. The Commercial Pilot License Course is also included in the Scheme of Post-Matric Scholarship for ST students and 10 Scholarships are to be given to the eligible ST students per year.

Book Bank –Many ST students selected in professional courses find it difficult to continue their education for want of books on their subjects, as these are often expensive. In order to reduce the dropout rate of ST students from professional institutes/universities, funds are provided for purchase of books under this scheme. The scheme is open to all ST students pursuing medical, engineering, agriculture,

veterinary, polytechnic, law, chartered accountancy, business management, bio-science subjects, who are receiving Post-Matric Scholarships.

Upgradation of Merit –The objective is to provide special coaching to students so that they can compete with other students for admission to higher educational courses and for senior administrative and technical occupations.

National Overseas Scholarship Scheme for Higher Studies Abroad –The objective is to provide financial assistance to students selected for pursuing higher studies abroad for Post-Graduation, Ph. D and Post-Doctoral research programmes.

Rajiv Gandhi National Fellowship (RGNF) –It provides fellowships in the form of financial assistance to students belonging to the Scheduled Tribes to pursue higher studies such as M. Phil and Ph.D. The scheme covers all the Universities/ Institutions recognized by the University Grants Commission.

Scheme of Top Class Education for ST Students –It aims to encourage meritorious ST students for pursuing studies at degree and post-degree level in any of the 213 selected institutes, in which the scholarship scheme is operative. The Scheme has started from 2007-08 with 625 scholarships per year.

Vocational Training in Tribal Areas (VTC) –The main aim of the scheme is to upgrade the skills of the tribal youth in various traditional/ modern vocations depending upon their educational qualification, present economic trends and the market potential, which would enable them to gain suitable employment or enable them to become self-employed. The scheme covers all the States and Union Territories.

Pre-Matric Scholarship for Needy Scheduled Tribe Students Studying In Classes IX & X –The objectives of the Scheme are to: (i) support parents of ST students for education of their wards studying in Classes IX and X so that the incidence of dropout, especially in transition from the elementary to secondary and during secondary stage of education, is minimized, and (ii) improve participation of ST students in Classes IX and X of Pre-Matric stage, so that they perform well and have

a better chance of progressing to Post-Matric stages of education.

Ekalavya Model Residential Schools – It aims to provide quality middle, high school and higher-secondary education (classes VI to XII) to meritorious tribal students in a residential mode with quality staff who can cater to their distinctive environmental, educational and cultural needs and prepare them to live a life of dignity and become contributing members to the society at large.

1.2 Genesis of Eklavya Model Residential Schools (EMRS):

Eklavya Model Residential Schools (EMRS) started in the year 1997-98 to impart quality education to ST children in remote areas in order to enable them to avail of opportunities in high and professional educational courses and get employment in various sectors. The schools focus not only on academic education but on the all-round development of the students. Each school has a capacity of 480 students, catering to students from Class VI to XII. Hitherto, grants were given for construction of schools and recurring expenses to the State Governments under Grants under Article 275 (1) of the Constitution. The Ministry of Tribal Affairs launched the scheme of ‘Eklavya Model Residential School (EMRS)’ for classes VI to XII during 1997-1998 under Article 275(1) of the Indian Constitution on the pattern of JawaharNavodayaVidyalaya. Till date, 197 EMRSs have been sanctioned by the Ministry in various parts of the country, out of which, 129 EMRSs are fully functional and the remaining 68 EMRSs are under construction. During the study period, 6 EMRS are in operational in Mizoram.

In order to give further impetus to EMRS, in the year 2022, it was decided that every block with more than 50% ST population and at least 20,000 tribal persons, will have an EMRS across the country. Eklavya schools isat par with NavodayaVidyalaya and have special facilities for preserving local art and culture besides providing training in sports and skill development. As per Census 2011 figures, there are 564 such sub-districts out of which there is an EMRS in 102 sub-districts. Thus, 462 new schools were opened in the year 2022 across the country. In Mizoram, efforts are underway to establish more Eklavya schools.

EMRS has vision of catalyzing socio-economic development of the most underprivileged groups in India i.e. the Scheduled Tribes (STs), in a coordinated and a planned manner considering it as an effective instrument for their holistic empowerment. EMRS has mission for imparting quality education to ST children by establishment of Eklavya Model Residential Schools in order to enable them to avail high and professional educational courses and to get employment in various sectors. EMRS will ensure them opportunities at par with non-ST populations thereby providing impetus to the overall development of tribal population in the country.

1.2.1 Objectives of EMRS:

The objective of EMRS is to provide quality middle and high-level education to Scheduled Tribes (ST) students in remote areas, not only to enable them to avail of reservation in high and professional educational courses and as jobs in government and public and private sectors but also to have access to the best opportunities in education at par with the non-ST population. This would be achieved by:

1. Comprehensive physical, mental and socially relevant development of all students enrolled in each and every EMRS. Students will be empowered to be change agent, beginning in their school, in their homes, in their village and finally in a large context.
2. Focus differentially on the educational support to be made available to those in Standards XI to X, so that their distinctive needs can be met.
3. Support the annual running expenses in a manner that offers reasonable remuneration to the staff and upkeep of the facilities.
4. Support the construction of infrastructure that provides education, physical, environmental and cultural needs of student life.

1.2.2 Management and Running of EMRS:

1. The EMRSs may be affiliated either to the State or Central Boards of Secondary Education as desired fit by the State Governments/UT Administration.

2. The norms and standards for a school Class VI to class VIII in respect of number of teachers to be appointed, as provided in the Schedule to the Right of Children to Free and Compulsory Education ACT 2009 shall be strictly followed.
3. Efforts may be made to recruit maximum no. of women teachers. At the time of recruitment, preference may be accorded to candidates whose spouses also qualify for selection as teachers. Women should be given preference for employment among the non-teaching staff and in any case women be deployed in the posts of cook, helper and cleaner.
4. Each State Governments/UT Administration would be solely responsible for the management and effective functioning of EMRSs.
5. State Government/UT Administration may opt for any feasible/suitable mode of management whether by autonomous education societies; public-private partnership with reputed educational institutions; in arrangement with the State Department of Education or any other mode found suitable.
6. All State Governments/UT Administration are encouraged to set up a society/use an existing registered education society for the management of the EMRSs. Such a society will be eligible for accepting donations, of augmenting the infrastructure/ facilities/ educational resources of the schools in the interest of quality education.
7. A Management Committee may be constituted for each EMRSs which could include, among others, reputed local NGOs involved with education. Help of such NGOs may be taken to organize socially relevant development/welfare extension programmes.
8. The tasks of school admissions, appointment of teachers, appointment of staff, personnel matters and day-to-day running of the schools would be handled entirely by the society chosen by the State Government/UT Administration and in the manner deemed most suitable.

9. The State Governments/UT Administration shall ensure and maintain the highest quality in the selection of teachers and staff for academic and extra-curricular excellence.

10. The Government of India, Ministry of Tribal Affairs shall not accept any responsibility for the management of the School including student admission, staff recruitment, personnel policy/administration, estate management etc.

1.2.3 Costs and Budget:

The capital cost for the school complex, including hostels and staff quarters will now be Rs. 12.00 crore with a provision to go up to Rs. 16.00 crore in hill areas, deserts and islands. Any escalation will have to be met by State Government/UT. Recurring cost during the first year for schools would be @ Rs. 42000/- per child. This may be raised by 10% every second year to compensate for inflation etc. For procurement of essential, non-recurring items like furniture/equipment including for the kitchen, dining, hostel, recreation, garden etc. @ Rs. 10 lakh per school- will be allowed once in every 5 years, allowing for inflation. .

The annual budget for recurring expenditure shall be formulated and placed before the Management Committee for approval at the end of the each financial year for the next year. The rates for calculation of recurring costs may be based on the prevailing rates sanctioned for the Jawahar Navodaya Vidyalaya from time to time.

The amount under recurring cost, due to each functioning EMRS, would be released by the State/UT Government to the bank account of the EMRS. The bank account of each EMRS for this purpose may be opened jointly in the name of the principal of the EMRS and any Member of the Management Committee who is also a Government Official.

1.2.4 Admission Procedure:

1. Admission to these schools will be through an appropriate method as per transparent objective criteria to be decided by the NESTS based on the norms under RTE Act, 2009.
2. The number of seats for boys and girls will be equal.
3. The total maximum sanctioned strength of a school shall be 480 students.
4. At the Upper Primary and Secondary level i.e. from class VI to X, every class will have maximum 60 students in 2 sections of 30 students each.
5. At the Senior Secondary level (class XI &XII), there will be three sections per class for the three streams in Science, Commerce & Humanities. The maximum sanctioned strength of each section should be 30 students. In case of short fall in a section, ST students from other schools may be admitted as per procedure.
6. 10% of the seats of EMRS/EMDBS can be filled up by non-ST candidates (shall not exceed the total strength of 480). Priority shall be given to children of EMRSs/EMDBS staff, children who have lost their parents to Left wing extremism and insurgencies, children of widows, children of divyang parents etc.
7. Reservation of 20% seats under sports quota for deserving ST students who have excelled in the field of sports.
8. Ministry/NESTS will issue separate detailed guidelines for admission of students under Sports quota.
9. Vacant seats in existing schools shall be filled up on priority by conducting special drives.

1.2.5 Roles and Responsibilities of the National Education Society for Tribal Students:

1. Operationalization of the scheme in all its contours.
2. Plan, construct, establish, endow and administer the Schools and to do all acts and things necessary for or conducive to tribal education.
3. Provide good quality modern education- including a strong component of inculcation of values, awareness of the environment, adventure activities and physical education to the tribal children.
4. Provide facilities, at a suitable stage for instruction through a common medium all over the country as per the language norms of CBSE.
5. Offer a common core-curriculum of NCERT to ensure uniformity in standards.
6. Facilitate CBSE affiliation of schools.
7. Facilitate conduct of training / capacity building programmes for teaching and nonteaching staff in coordination with the State/UT EMRS Societies.
8. Transfer the admissible Recurring Costs based on the actual requirement as to be projected by the State/UT EMRS Society in the beginning of the financial year for onward transmission to the schools through PFMS.
9. Shall provide detailed standards and norms for recruitment of Teaching and Nonteaching Staff and continuation of existing staff.
10. Shall review the existing MoUs signed by the State/UT EMRS Society or the State Government with Non-Governmental Organizations (NGOs) regarding running of the existing schools and take appropriate decision to enter into a fresh MoU only if the academic results are found good and any other benchmarks as to be decided.

11. If need be, could entrust the recruitment of teachers for States to an independent agency duly ensuring reservation quota prescribed therein.
12. Aid, establish and conduct other institutions as may be required for the furtherance of the Society's objectives in any part of India.
13. Do all such things as may be considered necessary, incidental or conducive to the attainment of all or any of the objectives of the Society.
14. Carry out any other activities required for implementation of the Scheme, as directed by Ministry of Tribal Affairs, Government of India from time to time.
15. Shall adhere to General Financial Rules, 2017, Delegation of Financial Powers Rules and maintain proper accounts and other relevant records, including prepare an annual statement of accounts, balance sheet, in such form as may prescribed by the Government of India.
16. Accounts of the Society shall also be subject to C & AG audit.
17. Shall deal with all legal matters arising out of the implementation of the Scheme.

1.2.6 Roles and Responsibilities of the State Government/ UT Administration:

- 1.0 Provide land free of cost as far as possible or on nominal cost, free from all encumbrances with clear land use for development and expansion EMRS/ EMBDs/ Centre of Excellence for sports. The land use shall not be changed to the detriment of the National Education Society for Tribal Students. Ensure proper connectivity like road, etc. as required for the schools.
- 2.0 Provide, or cause to be provided, electricity, water and other utility services at substantially concessional rates at EMRS/ Centre of Excellence for Sports.

3.0 Ensure safety of the schools, children and staff by ensuring necessary precautionary measures.

4.0 Shall ensure resolution of any law-and-order situation that may pose a threat to the safety and security of the school, students and staff.

5.0 Place the assets already created for such schools at the disposal of the State/UT EMRS Society without any financial implications.

1.2.7 Roles and Responsibilities of the State/UT EMRS Society:

1. State/UT EMRS Societies will be responsible for the management of Schools sanctioned/established in the particular State/UT in accordance to the norms and guidelines laid down by the NESTS.

2. Shall coordinate with the respective State Government /UT Administration to provide land free of cost and free from all encumbrances with clear land use for development and expansion of the schools.

3. Shall ensure transfer of the identified land in its name and the building appurtenant thereto, vested with it.

4. Shall ensure proper connectivity like road, electricity, water supply, land development etc. as required for the schools in coordination with the State Government /UT Administration.

5. Shall ensure recruitment of Teaching & Non-Teaching Staff for the schools based on the norms, guidelines and Recruitment Rules prescribed by the Ministry from time to time in a time bound manner.

6. Shall ensure adherence to the reservation policy as applicable to the sub-groups within ST communities, if any, in the respective State/UT during the recruitment and admission process in the schools in consonance with the extant guidelines of the Ministry.

7. May incorporate locally relevant curriculum, if required with prior approval of the NESTS.
8. Shall ensure migration of existing schools to CBSE curriculum, if not affiliated to CBSE, within one year from the date of signing of the MoU.
9. Shall prepare and submit an Annual Action Plan based on the actual requirements to the NESTS for sanction and disbursement of Recurring & Maintenance Grant in the penultimate month of the preceding financial year.
10. Shall open Bank Accounts exclusively for receipt and disbursement of funds pertaining to the schools received from the NESTS at the Society and School Level.
11. Shall implement Public Financial Management System (PFMS) including the Expenditure, Advance and Transfer (EAT) Module at the Society and School Level. However, in addition to PFMS, may also put in place any other system for transfer and monitoring of funds for better transparency and monitoring, if required.
12. Shall register the schools on the Government E-Marketplace Portal and ensure procurement of goods and services through the portal as per the GFR norms preferably or may follow the State Financial Rules. In case the State Financial/Procurement Rules are followed, due diligence to be done to ensure that it is in consonance to the spirit of the General Financial Rules and doesn't contradict the provisions out-rightly.
13. Undertake other responsibilities as delegated by the NESTS.

1.2.8 Review and Monitoring:

The progress of implementation of the scheme will be reviewed by the Union Ministry of Tribal Affairs through periodic reports from the State Government/implementing agencies. The Ministry of Tribal Affairs (MoTA) will conduct review meetings during which States/UTs would be required to make presentations on the progress of their EMRSs. The guidelines for the use of the grants under Article 275 (1) provide for an amount up to 2% of the total allocation to

be used for administration of the programme. This would be applicable in case of EMRS.

A Centralized mechanism for the online monitoring of the EMRSs would be developed. Meanwhile States/UTs may strength their own systems/methods. The Government of India is free to make any modification in the aforesaid conditions in consultation with selected State Governments/UTs whenever deemed necessary.

Table 1: List of Eklavya Model Residential Schools in India as on 1.11.2022

| Sl.No | Name of the State | No. of EMRS Functional | No. of EMRS Not Functional | Total |
|-------|-------------------|------------------------|----------------------------|-------|
| 1 | Andhra Pradesh | 26 | 2 | 28 |
| 2 | Arunachal Pradesh | 2 | 8 | 10 |
| 3 | Assam | 1 | 9 | 10 |
| 4 | Bihar | 0 | 3 | 3 |
| 5 | Chhattisgarh | 71 | 0 | 71 |
| 6 | Gujarat | 35 | 0 | 35 |
| 7 | Himachal Pradesh | 4 | 0 | 4 |
| 8 | Jammu & Kashmir | 0 | 6 | 6 |
| 9 | Jharkhand | 13 | 70 | 83 |
| 10 | Karnataka | 12 | 0 | 12 |
| 11 | Kerala | 2 | 2 | 4 |
| 12 | Ladakh | 0 | 3 | 3 |
| 13 | Madhya Pradesh | 63 | 4 | 67 |
| 14 | Maharashtra | 25 | 7 | 32 |
| 15 | Manipur | 3 | 18 | 21 |
| 16 | Meghalaya | 0 | 15 | 15 |
| 17 | Mizoram | 6 | 11 | 17 |
| 18 | Nagaland | 3 | 19 | 22 |
| 19 | Odisha | 27 | 61 | 88 |
| 20 | Rajasthan | 21 | 9 | 30 |
| 21 | Sikkim | 4 | 0 | 4 |
| 22 | Tamil Nadu | 8 | 0 | 8 |
| 23 | Telangana | 23 | 0 | 23 |
| 24 | Tripura | 5 | 15 | 20 |
| 25 | Uttar Pradesh | 2 | 1 | 3 |

Source- <https://tribal.nic.in/downloads/EMRS/ListofEMR01112022.pdf>

EMRS is one of the most important schools in Mizoram since the objectives and visions of the scheme are different from many existing schools in the State. EMRS contributes many distinct features and role in tribal students and education system in Mizoram. It is therefore necessary to study the work process and progress status of EMRS in Mizoram to know whether it will be beneficial for the society of Mizo. Since the objective of EMRS is to provide quality middle and high-level education to Scheduled Tribes (ST) students in remote areas, it has great influence in the tribal state like Mizoram.

EMRS and its mission also enable tribal students to avail of reservation in high and professional educational courses and as jobs in government and public and private sectors but also to have access to the best opportunities in education at par with the non-ST population. It is really a matter to investigate the development of EMRS so that it will become more and more popular and people also start adapting to it.

Many talented and brilliant students from both the rural and urban children will have the opportunity to study in EMRS if the objectives and their contribution were known. It will help the talented and brilliant tribal students in all the possible way in terms of medical, physical and social development including morality and well-being of the youths. This will enhance their academic performance and achievement in near future.

These tribal students can face deprive of quality modern education which can lead to social evils in Tribal Population. However, EMRS will enable the students from rural areas to be able to compete with the urban counterparts' students in an equity manner with equal rights, equal educational opportunity in areas like NEET, JEE, SCC, UPSC, and State Public Service Exams. These will enlighten and provide confidence towards tribal students and the society which will be the most required treasures in a great country like India unity amidst diversity.

In order to give further impetus to EMRS, it has been decided that by the year 2022, every block with more than 50% ST population and at least 20,000 tribal persons, will have an EMRS. Eklavya schools will be on par with Navodaya Vidyalaya and

will have special facilities for preserving local art and culture besides providing training in sports and skill development.

Dedicated infrastructure for setting up Centre of Excellence for sports with all related infrastructure (buildings, equipment's etc.) is supported in all EMRS. This Centre of Excellence will have specialized state-of-the-art facilities for one identified individual sport and one group sport in each State.

Considering the objectives' schemes, visions and its importance of EMRS, the researcher found no study related to this field in Mizoram. Therefore, it is needed to have a comprehensive research study that discovers different angles and aspects of the works and progress status of EMRS in Mizoram.

Simultaneously, the present study also tries to find out the problems faced by the schools and students in comparison with other State EMRS. Knowing the problem is not the end of the study, so this study endeavors to suggest an effective measure for the best outcomes of EMRS and its impact on Mizoram Tribal Education and the Society.

1.2.9 School Education in Mizoram:

Education in Mizoram consists of a diverse array of formal education systems ranging from elementary to university, from training institution to technical courses. The Government of India imposes mandatory education at least up to the basic level. For this public schools are made free of fees, and provided with free textbooks and school lunch. In spite of relatively late education system, as of the latest Census in 2011, Mizoram is the second highest in literacy rate (91.58%) among the Indian states.

1.3 History:

Before the land of the Mizos was annexed to the British Empire in 1890, Mizos were without written language and were totally illiterate. Knowledge was predominantly

imparted orally at the Zawlbuk, the traditional learning centre of the Mizos.

In 1894 two English missionaries of Arthington Aborigines Mission Dr. (Rev) J.H. Lorrain and Rev. F.W. Savidge arrived at Aizawl. They immediately worked on creating Mizo alphabets based on Roman script. After a stay of only two and half months, they started the first school on 1st April 1894. Their first and only pupils were Suaka and Thangphunga. The two teachers were surprised that their students had mastered the new alphabets in only a week.

The first textbook *Mizo Zir Tir Bu (A Lushai Primer)* was released on 22 October 1895 and became the first book in Mizo language. 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 a 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 honored 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 INR 3 each per month for 2 years.

The first systematic examination called Lower Primary Exam was conducted on 25 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 April 1.

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.

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 25 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 15 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 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 at the top list of highest literacy rate in India.

The office of school education for Mizoram was started in 1973. It became a separate Directorate of School Education in 1989 and is located at McDonald Hill, Zarkawt, Aizawl. The department looks after elementary, secondary, higher education, language development, adult education and physical education within the state. The directorate administers the entire state and divides into 4 (four) education districts, namely (1) Chhimituipui district, (2) Lunglei district, (3) Aizawl East district, and (4) Aizawl West district.

The Government of Mizoram adopted the Right of Children to Free and Compulsory Education (RTE) Act, 2009, and based on it has enacted its own Mizoram Right of Children to Free and Compulsory Education Rules, 2011. The rules demand compulsory schooling for children aged between 6 and 14 years, special training for

children in need of special development, provision of free textbooks and writing materials, free uniforms for BPL children.

Mizoram state education department started implementing Sarva Shiksha Abhiyan from the financial year 2000-2001. Funds were utilised for various activities, such as conducting household survey, training of teachers, preparation of district plan, purchase of vehicles, etc. At the initial stage, when only Saiha district was selected for starting pre-project activities, there was no society constituted for this programme and no district committee was formed either.

As a result, District Education Officer (DEO), Saiha and supporting staff in consultation with Directorate of School Education, carried out the pre-project activities. "The Mizoram Sarva Shiksha Abhiyan Raja Mission Rules 2001" was passed by the Mizoram Legislative Assembly and the same was published in the Mizoram Gazette on 1 August 2001. In the same year the Mizoram Sarva Shiksha Abhiyan mission was registered under the societies registration (extension to Mizoram) Act 1976 (Mizoram Act No. 3 of 1977).

1.4 Rationale of the Study:

EMRS is one of the most important schools in Mizoram since the objectives and visions of the scheme are different from many existing schools in the State. EMRS contributes many distinct features and role in tribal students and education system in Mizoram. It is therefore necessary to study the work process and progress status of EMRS in Mizoram to know whether it will be beneficial for the society of Mizo.

Since the objective of EMRS is to provide quality middle and high-level education to Scheduled Tribes (ST) students in remote areas, it has great influence in the tribal state like Mizoram. EMRS and its mission also enable tribal students to avail of reservation in high and professional educational courses and as jobs in government and public and private sectors but also to have access to the best opportunities in education at par with the non-ST population.

It is really a matter to investigate the development of EMRS so that it will become more and more popular and people also start adapting to it.

Many talented and brilliant students from both the rural and urban children will have the opportunity to study in EMRS if the objectives and their contribution were known. It will help the talented and brilliant tribal students in all the possible way in terms of medical, physical and social development including morality and well-being of the youths. This will enhance their academic performance and achievement in near future. These tribal students can face deprivations of quality modern education which can lead to social evils in Tribal Population.

However, EMRS will enable the students from rural areas to be able to compete with the urban counterparts' students in an equity manner with equal rights, equal educational opportunity in areas like NEET, JEE, SCC, UPSC, and State Public Service Exams. These will enlighten and provide confidence towards tribal students and the society which will be the most required treasures in a great country like India amidst diversity.

In order to give further impetus to EMRS, it has been decided that by the year 2022, every block with more than 50% ST population and at least 20,000 tribal persons, will have an EMRS. Eklavya schools will be on par with Navodaya Vidyalaya and will have special facilities for preserving local art and culture besides providing training in sports and skill development.

Considering the objectives, schemes, visions and its importance of EMRS, the researcher found no study related to this field in Mizoram. Therefore, a comprehensive research study to discover the structure, functioning and administration of the EMRS in Mizoram is pursued for this research study. Simultaneously, the present study also tries to find out the problems faced by the schools and students. Knowing the problem is not the end of the study, hence, this study endeavors to suggest an effective measure for the best outcomes of EMRS and its impact on Mizoram tribal education and the society.

The outcomes and progress of any scheme need to be evaluated from time to time not only to assess the extent to which its vision has been realized but also to apply mid-course corrections, if required, for realizing the programme objectives.

The present study is an attempt to assess the status of EMRS Mizoram with reference to infrastructure facilities, quality of school and classroom educational climate, quality of staff and services offered, children's learning outcomes and their upward mobility in career, and the objectives for which the EMRS scheme was launched. It is hoped that the study findings would help authorities to apply midcourse corrections, if necessary, and provide information to planners for revising EMRS policy guidelines, if required.

1.5 Statement of the Problem:

In the context of the above rationale and quest of finding answers to qualitative research questions, the title of the study is framed as: **“Ekalavya Model Residential Schools in Mizoram: An Analytical Study”**.

1.6 Objectives of the Study:

1. To examine the profile of the EMRS, focusing on the principal, teachers, non-teaching staff, and students' enrollment, as well as dropout and pass-out rates during the study period.
2. To evaluate the various students' provision accessible at Eklavya Model Residential Schools in Mizoram.
3. To examine the principals' perspectives on the management of the Eklavya Model Residential Schools (EMRS) in Mizoram during the study period.
4. To assess the administrative managements of these EMRS from the teachersand staff perspectives.

5. To evaluate the infrastructural facilities of the Eklavya Model Residential Schools under study.
6. To identify the challenges faced by the students and teachers of the EMRS and to advocate measures to resolve these challenges.
7. To suggest measures for strengthening the EMRS to draw implications for policy making on the education of the tribal children of Mizoram.

1.7 Hypotheses:

1. There is no significant difference in the quality of the schools from the perspectives of the students.
2. There is no significant variation from the principals' perceptions on the functioning of the 6 EMRS under study.
3. There is no significant difference from the teachers' point of views on the administrations of the 6 EMRS during the study period.
4. There is no significant variation in the quality of infrastructures of the 6 EMRS during the study period.
5. There is no significant difference in the management of the schools from the viewpoints of the staff in the 6 EMRS.
6. There is no significant difference in the management of the 6 EMRS hostels.

1.8 Limitation of the Study:

1. The study is limited to the functioning 6 EMRS in Mizoram during the study period, its findings should not be generalized for EMRS in other regions of the country.
2. The study specifically examined the quality of education in EMRS, the results

should not be generalized for other public and private schools in the state.

3. Students from the same EMRS had varying perspectives on some indicators, which can be attributed to the different teaching methods and textbooks used in different classes within the same school.

1.9 Chapterisation:

Chapter 1: *Introduction* provides an introduction and background of the research problem highlighting this study's context. It also provides a brief outline of the challenges regarding the schooling of deprived tribal students.

Chapter 2: It provides a summary and discussion about the studies conducted on the areas related to education for tribals, underprivileged and marginalization sections, school governance, and leadership. In this chapter, the research questions, rationale of the study, limitations have been discussed.

Chapter 3: *Methodology of the Study*- intends to explain the procedure for this study's conduction. It discusses the justification of the research methodology employed for this study, population, sampling, and tools for data collection, data collection procedures, and data analysis.

Chapter 4: *Analysis of the Results and Discussion*- discusses detailed descriptions of the study's collected data and field reality.

Chapter 5: *Summary, recommendation and conclusion* – This chapter deals with major findings, challenges, summary recommendation and conclusion.

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CHAPTER II

REVIEW OF RELATED LITERATURE

A new research, unless it is based on a thorough review of the past researches it may not bear relevance to what has gone before and it simply becomes an isolated entity (Fox, 1969, 75-76).

Researchers have to be up-to-date in their information about studies related to their own problems. References are to be made to similar studies and their evaluation too is to be made for benefit of the readers. Survey of related studies imply locating, studying and evaluating reports of relevant researches published as articles, encyclopaedias, research abstracts, comprehensive books on the subject and manuscripts, if any, for the worthwhile study. In any field of knowledge, the researchers need adequate familiarity with the works which have already been done in the area. The researchers have to build upon the accumulated and recorded knowledge of the past and draw maximum benefit from the previous investigations.

Thus, review of related literature shows the real path to be pursued by the researchers to conduct their studies and locate problems which have remained unexplored in previous studies. McMillan and Schumacher (1993, 113) write: *Related literature is that which is obviously relevant to the previous references to the theory and empirical testing of the theory; and studies of similar practices.*

In relation to the present study, an attempt was made to go through the literature such as reference books, monographs, government records and publications, encyclopaedia on education, research papers and national research abstracts on education, journals and magazines.

Several studies have already been carried out to analyze various aspects of school education. This chapter attempted to review relevant literatures relating to the present study. ERMS is a scheme for the Scheduled Tribe (ST), priority is given on tribal education. STs are diverse from the typical Indian culture in many ways in terms of their languages and other cultural norms.

The tribal groups in India comprised of 8.6% of the total population, i.e., 104.3 million as per the Census of India, 2011. The tribal people are considered to be backward in different walks of life. They mostly dwell in remote areas or hilly tracts. The remoteness of the tribal areas makes it challenging for the government to safeguard quality education and other developmental services that can accrue to the tribal people.

Providing quality education for their children is an urgent task for the overall wellbeing and development of this particular tribe.

This chapter is divided into five sections as under:

2.1: Challenges for providing quality education for tribal students.

2.2: Quality education and Eklavya Model Residential Schools.

2.3: Challenges for guaranteeing unbiased quality education.

2.4: Management structure and its impact on attaining quality education. 2.5: Inequality in Education and the Role of School Headship.

2.1 Challenges for Providing Quality Education for Tribal Students:

Majority of the tribal children in Chhattisgarh, Jharkhand and Odisha fight to get access to the schools devoted for them, and those who succeed in receiving access, failed to get quality education. Different agencies and government committees planned various ways for improving access in these schools. (Jojo, 2013). The expansion of spreading education was achieved over time by opening more tribal schools like Ashram Schools, Eklavya Model Residential Schools, building residential for students, but attention was not given on the improvement of tribal education by introducing remedial classes, counselling, and vocational education. These schools failed to deliver impartial quality education as per the requirements of the tribal students.

The provisions for the education of tribal children through various schemes and policies have proved to be inadequate in addressing their educational requirements. The running of schools in tribal areas is under serious threats (Jojo, 2013). A study about the condition of education in tribal areas in Maharashtra (CBPS, 2017) cited that there is a need to boost educational opportunities and requirements for the tribal pupils, not only in terms of physical infrastructure or financial provisions but more delicately and inclusively, without disaggregating planning across the states in India. It argues that a systematic and rational approach is the need of the hour to address the poor educational outcomes of the tribal people.

To increase improved access in schools, supervisions must pay particular attention towards provisioning and fund distributions and the factors for such investments by taking into account the socio-cultural and topographical factors that can influence learning outcomes of the tribals. Language and cultural gaps must be given priorities by planning and budget allocations to find the solutions to issues relating to tribal education. As Ramachandran (2018) stated that the drop out among these students is higher when the teachers cannot look into every child's learning needs. It creates a gap between the teachers and students, which ultimately leads to teachers to complete the syllabus within a specific time frame, irrespective of whether all the children in the class are learning or not. In this connection, recruiting tribal teachers especially from the local community could show some improvement in the participation of the tribal students in various activities of the school since the teachers are hoped to be more responsive in understanding their background and culture. Mahapatra (2010) stated that since education is an important key input for the general development of an individual, a particular focus on different policy frameworks has been accentuated for the educational improvement of the tribal peoples, such as tribal sub-plan program, Sarva Siksha Abhiyan, special schooling, etc. However, a huge gap still exists in the educational attainment indicators of this tribe. The different policies give priority only on financial provisions rather than other necessary factors. Less importance has been given to the schooling systems which are responsible for the sluggish educational progress of the tribal communities (Sujatha, 2011).

A typical curriculum is being offered to the ST students without considering their diverse differences. The syllabus design is more appropriate for the general population rather than the tribal community. Even teachers from the non-tribal group have shown lesser interests in providing proper academic care as per the learning requirements of the tribal students. These teachers often lack experiences of the tribal cultures and customs, and many of them left their jobs (Mishra, 2008). They failed to see the ground realities of the tribal students and are unable to provide academic support which leads to dissuasion among the tribal children (Mahapatra, 2010). Thus, the non-tribal teachers in tribal schools should undergo training on tribal sensitization, and even the tribal teachers must also undergo training programmes for the deprived tribal students (Sedwal & Kamat, 2008).

2.2 Quality Education and Eklavya Model Residential Schools:

Establishment of of Eklavya Model Residential Schools (EMRS) in India since 1997-1998 is an innovative scheme in India to offer quality middle and high school education to commendable tribal students in the tribal areas across the country. Tribals living in the backward areas of the country are deprived of the basic amenities of life, providing education is an important factor that will play a pivotal role in bringing a visible change in their way of living. EMRSs are facing challenges to improve the educational status of the tribals as there is a lack of regular faculty and supporting staff (Patra, 2018).

Teacher working under contractual employment, part time and retired persons are managing the EMRSs with a fixed salary does not contribute much in impartial quality education (Geddami, 2015). Majority of the teachers appointed in EMRSs are deprived of regular training programmes in order to enhance their knowledge and skills. The per-capita expenditure of children in EMRS per year is quite low to provide quality education as compared to Jawahar Navodaya Vidyalaya (JNV).

Kumar, et.al (2018) stated that tribal students are not attaining the educational accomplishments as expected in these schools. Though the schools are providing the

maximum level of facilities and support, but the dropout rate is quite significant and pose a major threat in these schools. The supply of pure drinking water facility is also a primary concern for these schools. As the students are mainly from a deprived community, proper direction and counselling by the teachers and staff are an important issue which must not be ignored. In these schools, the pupils lack interaction with the society and they are less involved when it comes to parent-teachers' interactions. An effective parent-teachers meeting is helpful for cooperation amongst the teachers, pupils and parents.

Dash (2018) stated that the academic outcomes of tribal learners in EMRS in Odisha is not satisfactory. The students' average performance of students remains within the range of 30%- 59%. There is lack of sufficient numbers of teachers and the teachers are employed as contractual workers with a low pay scale. This factor reduced the job satisfaction level of the teachers. Furthermore, residential quarters are not provided for the teachers within the school campus. The higher secondary level classes are being manned by guest teachers from other schools as the schools lack qualified PG teachers in these tribals' areas.

Therefore, qualified teacher, in addition to other academic support are needed for these tribal pupils to improve their academic achievement. It is also found that there is a lack of essential support in terms of teaching aids. It is essential to encourage the teachers to teach effectively as per the learning requirements of the tribal pupils.

Dash, N. (2018) also conducted another study where he explored teaching- learning process in EMRS and JNV for tribal students in Odisha. Teachers in EMRSs were contractual in nature during his study. The campus lacked residential facilities and their pay scale was quite low. Though Government had taken a lot of initiative to attract well-qualified teachers to these tribal areas, those facilities were not sufficient for them. Higher secondary classes were running with guest teachers from other schools/colleges which did not fulfill the purpose. Thus, policymakers, planners, state government authorities, central government authorities must review the academic performance of ST students in various examinations conducted in EMRS in Odisha and implement recommendations very minutely to improve the academic

performance of ST students at higher secondary stage.

Patel (2015) reported that EMRSs across the country are not managed as per the guidelines. There is lacking a standard organizational structure for the better functioning of EMRSs. It is needed for the EMRSs a separate budget plan for recurring and non-recurring expenditure and engagement of staffing and educational expertise. In this context, Geddam (2015) stated that regular teaching-learning processes in EMRS follow a conventional method. Appropriate teaching-learning materials are essential for an efficient teaching-learning situation, but in these schools, it is found that there is a lack of availability of TLM. Library facilities are one of the main aspects of ensuring quality teaching-learning, but the EMRS fail to maintain proper library facilities for the learners. EMRSs need more regular teachers in response to maintain a healthy pupil-teacher ratio. The study also evaluated the EMRS with the objective to examine whether the programme was appropriate to meet the demand of the tribal students, whether the scheme was supplementing the education of the tribal students and whether there was any positive effect in reducing the dropout rates of the tribal students. His finding shows that EMR School was not managed as per the prescribed guidelines. The black boards in the class rooms were proper but the maintenance was poor, the number of toilets was less considering the students enrolments and its maintenance was also found to be poor. The study also recommended that the guidelines of EMRS should show the organizational structure at par with Navodaya Vidyalaya Model pattern. EMRS must have separate budget plans for infrastructure, recurring and non-recurring expenditure and they should be reflected in the annual plan and budget.

Low paid contractual teachers, part time teachers and retired persons are managing the schools, these workers do not fulfil the prescribed purpose of the scheme (Patra, 2018). In many states, the principal's post is either unfilled or managed on an ad-hoc basis, which hampers the management and administration of the schools (Geddam, 2015). Lack of qualified human resources is one of the major problems for quality education in these schools. The Department of Tribal Welfare under various state governments does not have the expertise to run the EMRS in their states.

Patra (2016) stated that in all the EMRS, school uniform varies from state to state. He further stated that uniform should be the same for all pupils in different state under this school for quality assurance. Jain, S. (2016) revealed that there was a significant difference between tribal girls and boys of EMRS in adjusting themselves after enrolling in this school. The girls were found to have difficulties in adjusting with their classmates and teachers as compared to the boys. This school has an important role to play in molding the girls students by teaching them manner and etiquetteto adjust themselves socially and emotionally.

According to Sujatha (1994) most of the students are naturally nervous and introvert, they are reluctant to participate in school activities. Majority of them often failed to understand the no-tribal teachers' languages. A suggestion was made that each class must be divided into two sections, to maintain proper pupil-teacher ratio. Some of the educational development policies that has been taken to resolve the disadvantages of the tribal students fails to come up with concrete solutions. She further reveals that having a double- engine-driven management system is one of the noteworthy constraints of tribal education at the planning stage.

In a study conducted by Singh, M. (2018), it was shown that tribal girls' students were more interested in areas like music, agriculture and vocational studies. On the other hands, boys were found to be more interested in areas like mechanics, sports, and scientific studies. Jain, S. (2020) conducted a research and found that every person had interest in vocational studies due to the assortment of their perception and culture and family background. The researcher observed that the teenage students developed a sense of responsibility towards their family and society, which is the factor behind their interest in learning vocational courses offered in the school.

Students of higher intelligence developed an interest in advanced and complex studies. A study on transformation in tribal education through EMRS was also conducted by Arun et.al (2020) where they stated that EMRS is plagued by land acquisition disputes in different states in India. Drop- out rates, dilapidated infrastructure and lack of permanent teaching and non- teaching staff are the issues halting the successful deliverance of EMRS. However, the study restricted itself to

the point of recommending viable suggestions to tackle these problems.

Biswal et.al (2021) examined the functioning of EMRS in Odisha, in their study they found that infrastructure of the school is regarded to be of utmost importance to increase the enrolment of students, improved infrastructure permit the employees to carry out their duties in the right manner in order to attain the educational goals and purposes. An improved infrastructural facility will help them to develop a friendlier environment in the school campus. The characteristics of infrastructure primarily emphasize how they have proven to be practical and advantageous to individuals. Therefore, infrastructure of the school should be upgraded for the development of the tribal students which will go a long way in enhancing their learning abilities, skill development and personal development.

2.3 Challenges for Assuring Unbiased Quality Education

Mythili (2019) carries out a study on the administration and leadership to enhance school educational quality in Sikkim. She recommended that quality education could be enhanced by a blend of good administration, system governance, and guidance. It is critical to inculcate guidance at all levels of the educational system to for better governance but it is the need of the hour for the improvement of the schools. To achieve improvement in school education, good management and guidance must be met at the state level, this will have a direct impact on the schools in terms of management and guidance (Pless et.al, 2011). The capability of school heads in order to influence the educational outcomes for the students by upgrading their skills can be discovered through the capabilities approach as a valuation tool in the framework of school restructuring. The capabilities approach as an inducement for educational policy coupled with its capacity will enable the school administrators to work in an innovative and inventive ways within their school. It will also go a long way for the progress of the school and the development of the potentials of the students (Fertig, 2012).

In most of the school setting, school heads who are sensitive towards the culture are

more accountable for nurturing an inclusive school atmosphere for the deprived students, especially those who remain demoted within the broader school settings (Khalifa, 2016). Good administrators are involved in the neighborhoods of the tribal areas and they maintain a good relation with the people within their areas. They try to give opportunities for professional progress to guarantee that their teachers and school curriculum are within the reach of the deprived students. To counter inequalities socially, the administrators must be courageous while maintaining dignity and integrity. The removal of all inequalities such as the accomplishment gap, disciplinary measures, unfair recommendations and appointments in special education, and school management that obstruct the deprived tribal students, must always be the objective of these administrators' acts (Lopez, 2006). On the other hand, the heads must take into account the progress of all the students, at the same time, they must also focus on those who are slow learners and have not been productive in their studies.

Students' achievements do not reflect their socio-economic background, it mainly depends on their aptitudes and skills. Therefore, an impartial school system is fundamentally one where all the learners can reap their full potentials, regardless of their socio-economic background (Harris et.al, 2019). In schools and society where the level of challenges is intense and the jeopardy to equality of opportunities are quite significant, leading for equality is more than just a theme. Instructional headship in this setting implies that the heads' efforts should focus on student's academic advancement to improve their outcomes and the importance of refining classroom teachings (Day, 2016). Educational plans and evaluation of the quality of teachers and their teaching should be transparent. Whereas, Shatzer (2014) highlighted that the formation of the school ethos and vision for improving the quality of education are the need of the hour for the overall alteration of schools towards a philosophy of inclusiveness in education.

2.4 Management Structure and its Impact on Attaining Quality

Education:

Luschei et.al (2020) shown that decentralization of governance in education has positive outcomes for students in attaining higher achievements because when resources are decentralized it can be utilized more efficiently. At the same time, centralized model of academic institutions is less ineffective in meeting the challenges of the tribals. However, decentralizing the management structure can transfer sovereignty to the school principals who have the means and power to mold the teachers more accountable. It is also supportive in nurturing school relations and effectively linking students and teachers with the vision to boost their achievement (Shen et.al, 2012). Decentralized school administrations that include teachers is likely to have a positive correlation with the achievements of the tribal students. Students' performance is not correlation with the functioning of the principals in managing their schools. School sovereignty has a positive correlation with students' academic progress in terms of syllabi design, teachers' appointments and other school-based administration. However, they found that the school autonomy significantly has a positive impact in school organizations that use outside exit tests, which can improve the levels of transparency for the local authorities.

The transfer of control and accountability from the higher-level government functionaries to the lower level is an administrative decentralization. School administration methods may differ on how responsibility is reallocated in some major issues of the school and to whom the responsibility is shifted. Productivity and efficacy can be boosted if success road maps are set at the top of the solid structure while putting into practice the act of decentralization in the institutions (Wohlstetter et.al, 1992).

Moswela et.al (2019) stated that leadership in school administration is at the apex of a more effective management and plays a pivotal role in managing and supervising the proper working of the school in order to provide better education to the pupils. It is not viable to consider school administration without heads yet gives orders and directs the organization just to keep the organizations to function. They concluded that

school headship is the second most vital factor that can influence the students after classroom teaching (Fritz et.al, 2003). Good governance in education denotes the whole academia, administration, and executive systems where the stakeholders must design and implement good practices. Teaching and non-teaching staff must collaborate and interact to come up with new ideas for the smooth function of the schools. Leadership alone will not suffice to create a good work environment (Mythili, 2019). Since authority flows from the school levels to the state government levels, respecting good practices and developments and solid cooperation among the school, district and state will bring about changes in the area which will further have an indirect effect on the people for their welfare. Three indispensable features that define the substance of good governance was mentioned by Bareth (2004). First, the people must be freely and actively participated people in the decision- making process without anyone being discriminated at all the levels of governance systems; secondly, good governance favored the welfare of the people, particularly the vulnerable and socially disadvantaged section of the society, and thirdly, it works to implement positive changes in the society.

Superfluous emphasis on monetary resources supervision has somehow resulted in overlooking other important factors within the organization that affect the role of leadership at all levels. Very often, the leaders at the district levels lack the required skills to implement plans and supervise the schools. The guidelines of the Central Ministry are being sightlessly followed by the various authorities of the district and local education bureaus, which has resulted in a blurred picture when it comes to the authority and their responsibilities (Chapman, 2000). The primary tasks of the middle levels of the Central Ministry are to inform policy matters and program to schools, provide data and other necessary information from the schools to the ministry while monitoring that these schools are enduring government policies. These middle level lacks authority to decide and acts on the data available. Moreover, inspections of the schools are usually performed by workers who does not possess the necessary qualifications and lack moral ethics. General appointments through simple examinations does little improvements in their work ethics especially if they did not undergo specialized training (Sharma, 2000).

2.5 Inequality in Education and the Role of School Headship:

The role of headship plays a crucial role in the overall development of the schools. Next to classroom teaching, it is an equally important factor that can influence students' progress directly and indirectly. Several research studies have drawn a conclusion that for equality viewpoints in general and for the marginalized in particular, school headship plays a pivotal role in enabling the school facilities available to all students to meet their individual levels of learning. On the other hand, the authority's role at all levels also plays an influential part in monitoring schools' tactical directions, executing plans and policies, and giving advices on the various challenges of the schools. Challenges face by the tribal students are quite different from the challenges of students from other social groups in our country. Their difference in terms of their culture and socio-economic background must be taken into account while formulating policies for their educational development. Increasing dropout rates among the tribal students is a major challenge for the education policy makers. Other relevant issues such as absence of teachers from the tribal communities and curriculum design must also be addressed in their context. (Mishra, 2008).

Equality in terms of education is defined as raising the achievement level of all the students while lessening these achievement gaps between the highest and lowest performing pupils and removing ethnic and other disparities that exist amongst them (Singleton et.al, 2006). The role of the heads significantly affects how delicate their schools are to students for the deprived backgrounds (Stanovich et.al, 1998; Gardiner et.al, 2006). However, there are differences in the opinions of the heads in understanding equality issues in education and the strategies they adopt to make an inclusive environment in their schools.

Majority of the school leaders stated that, they did not undergo equality training during their pre-service training (Gardiner et.al, 2006; Zaretsky et.al, 2008). Another important issue is that principals are expected to create an inclusive work environment while also redefining the responsibilities of their employees. To increase equality among the students, various strategies must be employed by taking into

account the cultural background of each student. Principals or heads of the school are directly involved in order to maintain equity among the staff and students so as to enhance a healthy relationship in their schools (Rosset.al, 2009).

Leeman (2007) conducted a case study conducted in three schools in the Netherlands on school headship/ leadership and impartiality context. As their society there is based on multi-cultural, inequalities in education are seen in the vulnerable immigrants due to their socio-economic situations. School principals are bridging the gap between the school and the communities to enable access to school for all to validate educational diversity policy regarding mutual understanding and acceptance through multi-cultural education. The study shows the responsibility of school heads and the strategy towards the vulnerable, migrants, and other ethnic sets. Firstly, the school management hired experts on communication to describe that the school welcomes all students without any forms of discriminations. It also helps in endorsing the image of the school as an excellent school where everyone can identify the variances. It is a critical and fruitful approach for school headship to guarantee impartiality issues, so that parents of the pupils can develop a bond with the school. To accomplish this determination, schools have established inclusion approaches like supportive learning and individual consideration to meet each learner's requirement.

Schools selected internal administrators and remedial tutors for the underprivileged learners. They paid attention to morals like safety and mutual trusts in their prospectus and instructional approach at various levels to promote work knowledge of working together with the diversity of their society. The school adopted a rule to welcome all the parents at the school's entrance and also shows to them that the school respect the different multi- cultural diversity of each student. The school welcomes the active participation of parents and the society in the various activities of the school.

Goddard et.al (2007) conducted a study on how the school administrator facilitates admittance to school for all in Canadian framework. It was found that they have implemented different inclusive policies to endorse access to schools for all families in their study on four randomly selected schools in Canada's varied and multi-cultural communities. As Canada have many immigrants from other communities, adjusting

them in the Canadian education system is a challenge due to their varied cultural background. In this situation, the principal employed evasion strategies to minimize the differences and create unbiased access and opportunity for all the children. They did not consider their family's socio-economic upbringing, financial position, and proficiency in English or their previous experiences in other schools. The school adopted diverse inclusion plans for these students to be treated at par with everyone else, like providing support for learning English as the second linguistic for the students and parental participation in the decision-making of the schools. These schools also intensively engaged in curriculum design that identifies the differences in standards, staff progress in the ethno-cultural prospectus, and enrolment of minority teachers and they also give importance to developing students individually to meet the learning requirements of every student.

Pont (2017) highlighted that in education, equality does not hampered quality but rather promote the reverse. The best educational plans give priorities to higher attainment in the outcomes of all the students and attempt to minimize the socio-economic status on their progress by balancing equality and efficiency. From the systemic features of the educational system and policies interventions, there are several varied policies and methodology to increase equality in terms of access to education such as improving the structure of the education system, developing the quality of the teachers and also taking into account the ethnic diversity of the area where the policies are to be implemented.

Equality in access to educational opportunities is commonly based on two dimensions: impartiality and inclusion. Equality in terms of impartiality signifies that there must be no impartiality to thrive in education, irrespective of their gender, origin, caste and socio-economic background. On the other hand, equality in terms of inclusion emphasized on the inclusiveness of all children. An unbiased education system means a just and inclusive academic endeavors, which will enable the students to explore their potential without any hindrances (Schleicher, 2014). These two dimensions of equality are closely inter-twined in creating educational opportunities to minimize the negative effects of the shortcomings and communal deprivation,

which are often the causes of failure when it comes to educational outcomes. Field et.al (2007) in '*No More Failures*' contends that equality in education is a vital objective of school management. And it is to be approached from three levels such as the formation of the education system, supervision of the educational performances, and resourcing.

Therefore, quality education from equality perspectives for the maximum outcomes combines equality with quality education indicators. They offer all students access to first-rate education through implementing various strategies at the system itself and the school levels to encourage the marginalized students since their enhanced opportunities will have a direct and indirect benefits to the education system in particular and the society in general. Equality in the education system must be reasonable and inclusive in its design, in-school and out-of-school activities, and resourcing. This would aid the school in facilitating an impartial education for the disadvantaged students thereby reducing the learning gaps of the underprivileged.

Poor economic and cultural background can hamper the educational accessibilities of the minorities, it must be known that the Fundamental Rights gave to all children the right to education. The school managements must also be run systematically to include all the underprivileged and that the rules laid down for the school must support the poor-performing students to have second chances for them to improve themselves (Field et.al, 2007).

The above literatures highlighted the issues on the administration and management of the functioning of the Eklavya Model Residential Schools from equality perspective. These schools' primary function is to impart education to the children that belongs to the marginalized communities who are facing various challenges in accessing education and through these schools, children of the underprivileged can be an agent of change not only for their villages but for their society at large. At the same time, these schools functioning is often hampered by the lack of financial support, human resources, or other forms of support from the policy makers to progress further.

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CHAPTER III

METHODOLOGY AND RESEARCH PROCEDURE

This chapter outlines the methods and procedures utilized to address the study objectives and research questions, along with strategies for systematically tackling research problems. It delineates a framework for data analysis, including research method, design, samples, data collection methods, and analysis techniques.

Research methods encompass a range of techniques used to ensure the accuracy of results. These methods involve theoretical approaches, numerical techniques, experimental procedures, and other relevant data and tools essential for a research study. Not every theory, technique, or piece of information within a research topic is applicable to a specific problem. Therefore, through research methods we must identify and select materials pertinent to our study. The purpose of research methods is to facilitate the collection of relevant information and the validation of this collected data.

3.1 Research Approach:

A quantitative research methodology was chosen for this study to delve into the complexities of the schooling system in EMRSs, particularly focusing on equitable quality education for tribal children. Quantitative research allows for a deep understanding of stakeholder interactions and their contextual significance. The study aimed at providing an in-depth analysis of the schooling system from a perspective tailored to the needs of tribal children.

3.2 Research Design:

The research design employed in this study is descriptive in nature, aiming to characterize the current context or trends of the study variables or phenomena.

Descriptive research provides a comprehensive depiction of specific characteristics, values, attitudes, opinions, or behavioral patterns within a population or social system. This design facilitates exploration of the hidden context within the educational research domain, involving extensive fieldwork, observation, and data collection through structured questionnaires.

3.3 Population, Sample and Sampling Technique:

A population in statistics is the particular population that is the subject of the sought information (Mugenda & Mugenda 2003). A population is a precisely defined collection of individuals, services, objects, events, or homes under investigation. The list of responders used to create the samples is known as the sampling frame. It offers an exhaustive list of every person on the planet (Naoum, 2007).

The population of the study comprised of 6 (six) Eklavya Model Residential Schools; a government initiative aimed at providing quality education to tribal communities. They were purposively selected since they are the only 6 EMRS functioning in the state during the study period. The following table presents the total population of the study.

Table 2: Total Population

| EMRS | No. of Teachers | No. of Non-Teaching Staff | No. of Students in the last academic session | Principal |
|--------------|-----------------|---------------------------|--|-----------|
| Tipa | 7 | 9 | 203 | 1 |
| Lawngtlai | 7 | 9 | 210 | 1 |
| Serchhip | 17 | 11 | 270 | 1 |
| Lunglei | 17 | 13 | 210 | 1 |
| Ngopa | 12 | 10 | 270 | 1 |
| Chawngte | 6 | 10 | 270 | 1 |
| Total | 66 | 62 | 1433 | 6 |

Source: EMRSs of Tipa, Lawngtlai, Serchhip, Lunglei, Ngopa & Chawngte

Out of this total population, all the teachers, principals and non-teaching staff were taken as respondents since their strength is not too large. However, random sampling

method was applied in case of students since their total population is 1433. Sample size refers to the number of participants or observations included in a study, typically represented by "n." The sample size affects two key statistical properties: the precision of estimates and the study's power to draw conclusions. It is a small portion selected from the entire population, representing a significant part of the larger group. Samples are used in statistical testing when the population size is too large to include everyone.

Determining the sample size involves choosing the right number of observations or participants from a larger group to include in a sample. The goal is to ensure the sample is large enough to provide statistically valid results and accurate estimates of population parameters, yet small enough to be manageable and cost-effective. In many research studies, collecting data from every member of the population is impractical or unnecessary. Instead, researchers select a representative sample to study. For instance, purposive sampling, a non-probability sampling technique, was used to select six functional EMRSs across Mizoram during the study period and students from these schools were then randomly selected.

Out of the total students' population, a sample size was drawn with 95% confidence level and 5% margin of error. Considering the population size of the study, sample size of the students was calculated using Slovin's formula:

$$n = \frac{N}{1 + Ne^2}$$

Where,

n = Required sample size
N = Total population

l = Constant

e = margin of error

Consistent with this formula and considering the total students' population, 352 students are to be selected as respondents which is equivalent to 58.7 students per school, this figure was subsequently rounded up to 60 students for each EMRS. A

structured questionnaire was then distributed to these randomly selected 60 students in different classes of the six (6) EMRS with a total sample size of 360. Their selection was influenced by the main objective of the study and also on the aspect of trying to get variations in experiences as far as possible. Additionally, information was gathered from the principals, teachers and non-teaching staff members of these EMRS through questionnaires and observation method was employed for the hostels. Specifically, data were collected from randomly selected 360 students, 6 principals, 66 teachers and 62 staff members. Thus, the overall sample size for the study amounted to 494.

3.4 Data Collection Instruments:

Primary Data: The study is based mostly on primary data. Structured questionnaires were developed to gather information on governance structures, leadership, and the functioning of EMRSs. Different questionnaires were developed for the principal, teachers, non-teaching staff, infrastructure of the school, students about their school and hostellers about the hostels. Primary documents related to EMRSs, including guidelines and other pertinent information, served as additional data sources.

Secondary Data: An extensive literature review based on the education of tribal students was undertaken to familiarize with the concepts and issues. Secondary data were collected from various publications such as guidelines and information on EMRS published by the Ministry of Tribal Affairs; different districts National Information Centre data for profile of areas of the study and different states' governments Schedule Caste and Schedule Tribe Research Institutes' publications. Other sources of secondary data include journals, textbooks, magazines, newspapers and other e-resources.

A workshop was organized in the Department of Education, Mizoram University for development and finalization of tools. Where researchers and experts from different department like sociology, Psychology, Education, Social Work participated, framing different Tools and Techniques that were developed and employed are as follows:

1. A check list cum information schedule prepared in order to collect infrastructure facilities and services in schools, enrolment status, classrooms and hostels as necessary for effective learning with due regard to child-friendly parameters.



Fig-1: Workshop for the Development of Tools

2. Five Interview Schedules (one each for the principal, teacher, student, hostel superintendent, non-teaching staff), developed in the workshop for the collection of data.

The schedule along with the questionnaire were sent to a panel of experts consisting of distinguished educationists and veteran professors, experts working in the field of education and economics with the purpose for getting some suggestions for the better outcomes. After getting their valuable suggestions, necessary correction was made and a final draft of interview schedule were prepared. The Final interview schedule was given in Appendix. The reliability of the tool is verified with split half method and found it highly reliable.

3.5 Data Collection Procedure:

The researcher visited each EMRS with structured interview schedule for collection

of data. Permission has been taken by the researcher from the principals. Principal of each school introduced me with the staff and students. Then researcher distributed the interview schedule to the respondents to capture insights into the equitable provision of quality education for tribal children and functioning of EMRSs. A period of one month was given for each school and the program went very smoothly as planned.

3.6 Data Analytical Techniques:

Quantitative research method relies on methods which develops hard facts and numerical data. It establishes the cause-and-effect relationship between two variables using different statistical, computational, and statistical methods. As the results are accurately and precisely measured, this research method is also termed as “Empirical Research”. This type of research is generally used to establish generalized facts about a particular topic. This type of research is usually done using surveys, experiments, etc. The present study employed parametric and non-parametric tests such as mean differences, z-test, Cronbach’s Alpha, Kruskal-Wallis test and Mann-Whitney U and Chi Square test in analyzing the data.

3.6.1 Parametric Test:

For analyzing students’ perspective, two proportion z-statistic was employed. A two-proportion z-test is a statistical hypothesis test used to determine whether two proportions are different from each other. While performing the test, z-statistics is computed from two independent samples and the null hypothesis is that the two proportions are equal. In order to use the two-sample z-test, the following conditions must be met:

Conditions for Normality

The sampling distribution of the difference in proportions can be approximated by a normal distribution if the following conditions are met (according to the Central Limit Theorem):

1. $n_1 * p_1 \geq 5$
2. $n_1 * (1 - p_1) \geq 5$
3. $n_2 * p_2 \geq 5$
4. $n_2 * (1 - p_2) \geq 5$

Where,

n_1 = number of responses from school 1

n_2 = number of responses from school 2

p_1 = Proportion of yes from school 1

p_2 = Proportion of yes from school 2

Two Proportions z – test for Sample proportions:

Let p = pooled proportions of ‘Yes’ responses

Therefore, $p = \frac{\text{number of Yes responses from all the schools}}{\text{Total number of responses from all the schools}}$

A greater proportion of positive responses is seen as an indicator of higher school quality, as the questionnaire's design emphasizes affirmative answers to reflect a better school.

z-statistic,

$$Z = \frac{p_1 - p_2}{\sqrt{p(1 - p)\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$p = \frac{n_1 p_1 + n_2 p_2}{n_1 + n_2}$$

For a two-tailed test with a significance level of $\alpha=0.05$, the critical values are ± 1.96 .

3.6.2 Non- Parametric Test:

To analyze the infrastructures of the 6 EMRS, the infrastructures' categorical data were first transformed into numerical value for analysis as below:

| | | |
|---------------|---|---|
| Good | = | 4 |
| Manageable | = | 3 |
| Poor | = | 2 |
| Not available | = | 1 |

Cronbach's Alpha Test was then utilized to measure the reliability.

Reliability Test: Cronbach's Alpha Test

Cronbach's alpha is calculated by taking a score from each scale item and correlating it with the total score for each observation. The resulting correlations are then compared with the variance for all individual item scores. Cronbach's alpha is best understood as a function of the number of questions or items in a measure, the average covariance between pairs of items, and the overall variance of the total measured score. Cronbach's Alpha test is performed to test the internal consistency of the scale assigned to the ordinal value.

$$\alpha = \frac{k}{k - 1} \left(1 - \frac{\sum_{i=1}^k \sigma_y^2}{\sigma_x^2} \right)$$

where, σ^2 = variance associated with the total score σ^2 = variance associated with each term.

k = the number of items in the measure.

Kruskal – Wallis Test:

Given the categorical nature of the infrastructures data of the schools (classified as "good," "manageable," "poor," and "not available") and the non-normal distribution of responses, non-parametric statistical methods were selected. The Kruskal-Wallis

test was initially employed to determine if there exists a statistically significant difference in infrastructure perceptions among the schools. This omnibus test assesses whether the medians of the ranked data differ significantly across groups.

$$H = \left[\frac{12}{n(n+1)} \sum_{j=1}^c \frac{T_j^2}{n_j} \right] - 3(n+1)$$

Where,

n = total number of observations in all groups

T_j = Total rank for each group

n_j = Number of observations in each group

Since Kruskal-Wallis Test indicates a significant difference in quality of infrastructures across the 6 schools, a pairwise comparisons using Mann-Whitney U test was utilized to identify which schools differs significantly from each other.

Mann-Whitney U Test:

The Mann-Whitney U test identifies specific pairs of schools where the differences in infrastructure perceptions are statistically significant as presented below:

$$z = \frac{U - \mu_U}{\sigma_U}$$

Where,

U = Min (U₁, U₂)

μ_u = Expected value of U

σ_u = Standard error of U

Chi Square Test:

A chi-squared test (also chi-square or χ^2 test) is a statistical hypothesis test used in the analysis of contingency tables when the sample sizes are large. In simpler terms, this test is primarily used to examine whether two categorical variables (*two dimensions of the contingency table*) are independent in influencing the test statistic (*values within the table*). The test is valid when the test statistic is chi-squared distributed under the null hypothesis, specifically Pearson's chi-squared test and variants thereof. Pearson's chi-squared test is used to determine whether there is a statistically significant difference between the expected frequencies and the observed frequencies in one or more categories of a contingency table.

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

Where,

χ^2 = Chi squared

O_i = observed value

E_i = expected value

This test was used in order to capture the principals' responses with regards to the functioning and management of the 6 EMRS during the study period.

3.7 Limitations of the Study:

Studying EMRS status of Mizoram is a very challenging as well as important topic in the present-day scenario. There have been several limitations that arise while studying this particular problem. Firstly, the studied populations are seen not that honest with their answers, though they are allowed to give their response freely. Though the students were well informed that this study is meant only for educational purpose and that their identity will not be revealed, some students are still hesitant to

provide the right answers for reasons like fear of being teased by their friends or fear of their teachers.

Since the students had not much free time during the school hours, certain limitations arose when conducting a focus group discussion as it was very difficult to gather the students during their free time. Some of the students were not attentive and some of them were very shy to open up themselves in front of their friends, while some of them were afraid of group discussion, some of them were hesitant to speak out the truth fearing that they may face problem in future. However, they were informed and convinced that, their identity will not be divulged and what happened in the room will remain in that room and their friends were requested to make a promise not to spill the beans.

Certain problems also arose when conducting an interview for the teachers Government officials. Though some of them were very co-operative and took the interview very seriously, some of them were in great hurry and were unable to spare sufficient time to discuss the problems, its causes and its remedies. They wanted to end the interview as soon as possible, which really made the interviewer very uncomfortable.

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CHAPTER IV

DATA ANALYSIS

4.0 Introduction:

This chapter deals with the data analysis based on the results of the various indicators employed for the comparative analysis of the 6 EMRS during the study period. As stated in the methodology chapter, different statistical tools such as mean differences, z-test, chi square test, Cronbach's Alpha, Kruskal- Wallis test and Mann-Whitney U were utilized to capture the ground realities of the schools in terms of their students, infrastructure, management and functioning. Separate questionnaires were used for the students, principals, teachers, staff and observation method was employed for the hostels.

4.1 General Profile of the Principals:

In order to maintain accountability for results and emphasize the significance of sound leadership practices, it is both vital and crucial to evaluate the performance of school principals. Consequently, it is imperative to comprehend the principal's profile in schools. Variations in gender, age, duration of work experience, educational qualification and marital status are the focus under this section: profile of principals. This section presents the profile of principals and information was gathered from EMRSs of Mizoram.

Table 3: Profile of the Principals

| Gender | | | | Age in years | | | | Experience in Years | | | | Qualification | | | |
|--------|----|--------|----|--------------|----|-----|----|---------------------|----|-----|-----|---------------|---|----------------|-----|
| Male | | Female | | <40 | | >40 | | <10 | | >10 | | Graduate | | Above Graduate | |
| No. | % | No. | % | No. | % | No. | % | No. | % | N | % | No. | % | N | % |
| 4 | 66 | 2 | 34 | 2 | 34 | 4 | 66 | 0 | 00 | 6 | 100 | 0 | 0 | 6 | 100 |

Source: Field Survey, 2024

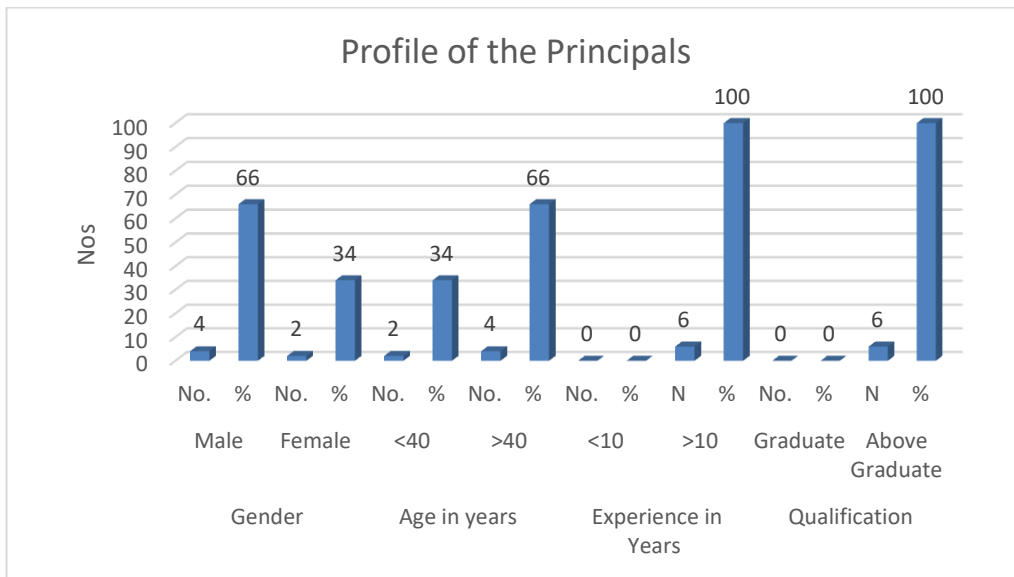


Figure 2: Profile of the Principals

During the study period, there were six Principals in the EMRS of Mizoram. Among them, four were male (66%) and two were female (34%). Four of the Principals were over the age of 40, while the remaining two were under 40. All of them had more than 10 years of experience and held educational qualifications above the graduate level.

4.2 Profile of the Teaching Staff:

The investigator took into account and gathered information from each respondent. The level of the educational climate in the schools is impacted by teacher engagement and motivation. Variations in teachers' gender, age, duration of work experience, training status, mode of appointment, and monthly remuneration greatly influence their motivation and attitude towards teaching. This section presents the profile of teaching staffs and information was gathered from EMRSs of Mizoram.

Table 4: Profile of the Teaching Staff:

| Gender | | | | Age in years | | | | Experience in Years | | | | Qualification | | | |
|--------|----|--------|----|--------------|-----|-----|---|---------------------|-----|-----|---|---------------|-----|-----------|---|
| Male | | Female | | <40 | | >40 | | <10 | | >10 | | Trained | | Untrained | |
| No. | % | No. | % | No. | % | No. | % | No. | % | N | % | No. | % | N | % |
| 38 | 58 | 28 | 42 | 66 | 100 | 0 | 0 | 66 | 100 | 0 | 0 | 66 | 100 | 0 | 0 |

Source: Field Survey, 2024

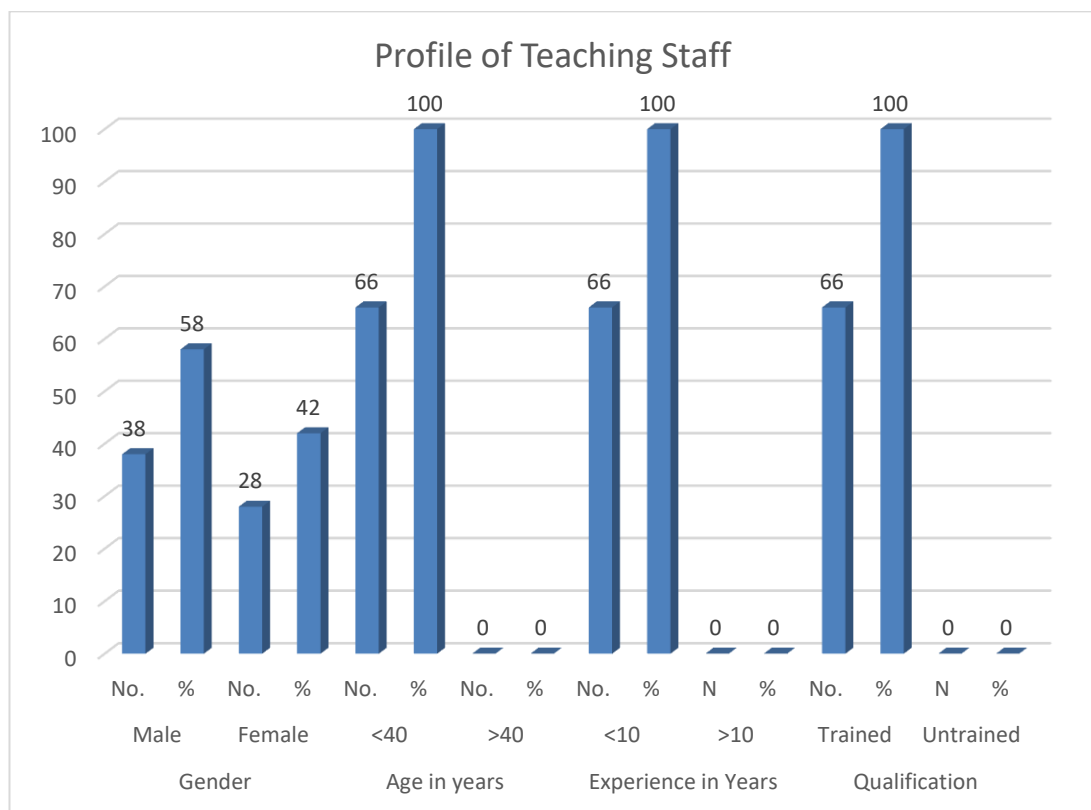


Figure 3: Profile of Teachers

From the above table and figure, there were a total of 66 teachers. Among them, 38 are male (58%) and 28 are female (42%). All the teachers are under 40 years of age and have less than 10 years of experience. They have all attended the mandatory training programs required for their profession.

4.3 Profile of Non-Teaching Staff:

Non-teaching personnel are employees of a school who do not instruct the students. They provide additional services that do not directly assist students with their academics but rather considerably enhance their whole school experience. So, non-teaching staff is a substantial portion of the educational system and should be treated with the same respect as teachers. Variations of non-teaching staff in respect to gender, age, work experience, mode of appointment, and monthly remuneration greatly influence their motivation and attitude towards teaching. This section presents the profile of non-teaching staffs of EMRSs of Mizoram which are presented in table.

Table 5: Profile of Non-Teaching Staff

| Gender | | | | Age in years | | | | Experience in Years | | | | Qualification | | | |
|--------|----|--------|----|--------------|-----|-----|---|---------------------|-----|-----|---|---------------|-----|----------------|---|
| Male | | Female | | <40 | | >40 | | <10 | | >10 | | Graduate | | Above Graduate | |
| No. | % | No. | % | No. | % | No. | % | No. | % | N | % | No. | % | N | % |
| 38 | 61 | 24 | 39 | 62 | 100 | 0 | 0 | 62 | 100 | 0 | 0 | 62 | 100 | 0 | 0 |

Source: Field Survey, 2024

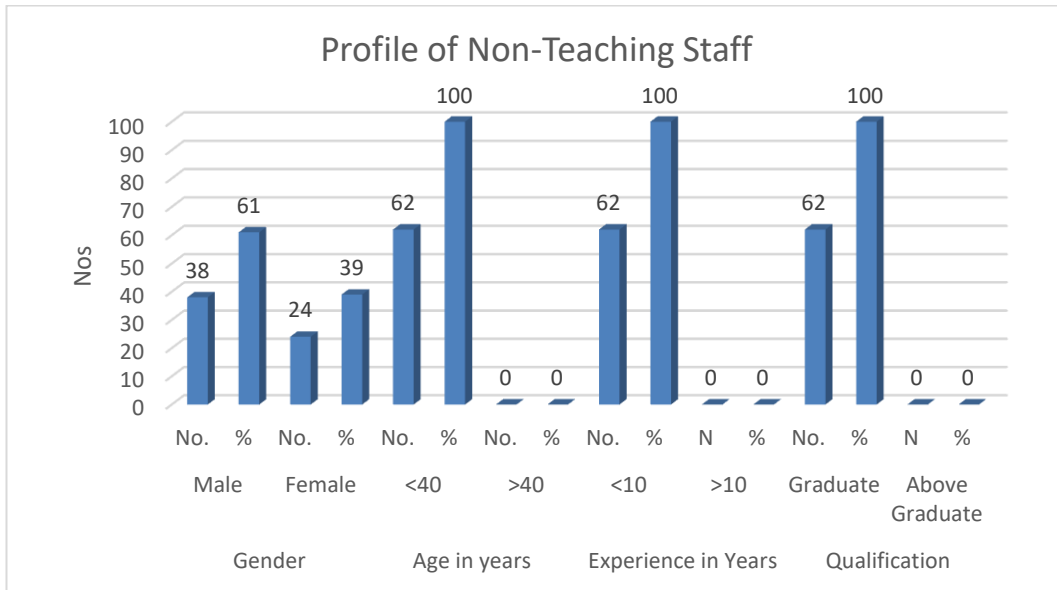


Figure 4: Profile of Non-Teaching Staff

The six EMRS have 62 supporting staff members responsible for the daily functioning of the schools' administration. Of these, 38 are male (61%) and 24 are female (39%). All staff members are under 40 years old and have less than 10 years of experience. In terms of educational qualifications, they are all undergraduates.

4.4 Profile of Students:

Students' academic achievements, skills acquired, interests, accomplishments, and goals are all captured in student profiles. This section presents the profile of student's information from all EMRSs of Mizoram which are presented in table. The investigator considers this factor and collected data from student respondents of EMRSs which is indicated in table:

Table 6 Gender Wise Variation of Students:

| EMRS | Girls | | Boys | | Total | |
|-----------|-------|------|------|------|-------|-----|
| | No | % | No | % | No | % |
| Tipa | 60 | 50 | 60 | 50 | 120 | 100 |
| Lawngtlai | 60 | 50 | 60 | 50 | 120 | 100 |
| Serchhip | 86 | 43 | 114 | 57 | 200 | 100 |
| Lunglei | 95 | 47.5 | 105 | 52.5 | 200 | 100 |
| Ngopa | 120 | 50 | 120 | 50 | 240 | 100 |
| Chawngte | 60 | 50 | 60 | 50 | 120 | 100 |
| Total | 481 | 48.1 | 519 | 51.9 | 1000 | 100 |

Source: Field Survey, 2024

From the above table, it is seen that the boys and girls' percentage in all the schools are likely to be same except Serchhip EMRS i.e. 43% girls and 57% boys are enrolled during the academic session of 2021.

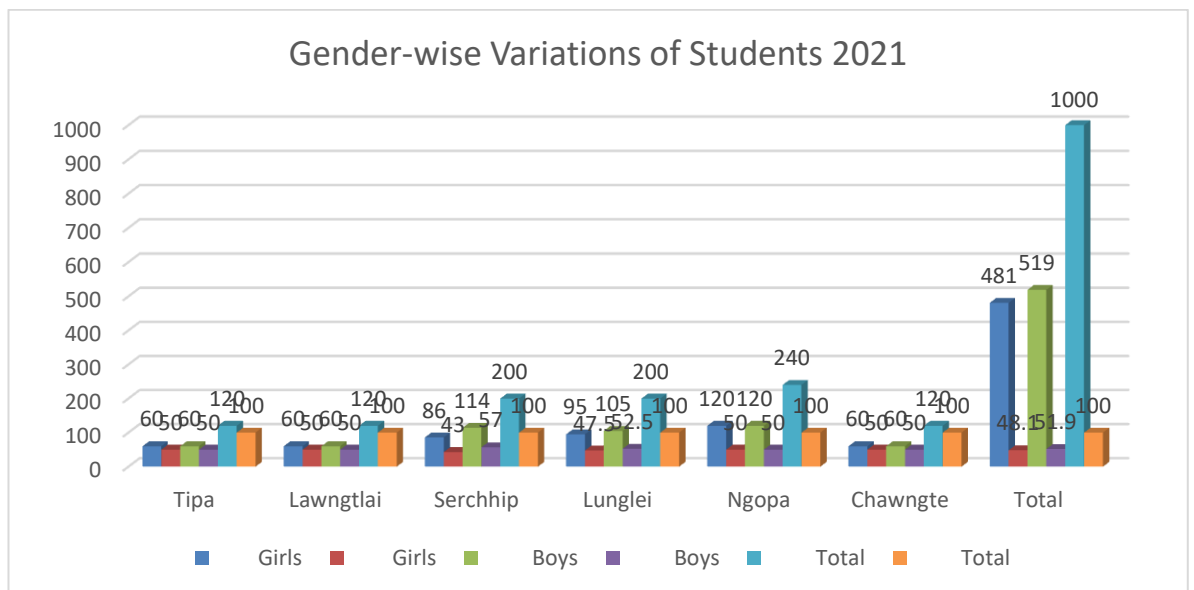


Figure 5: Gender wise Variations of Students 2021

4.5 Enrollment of Students:

Enrollment of students in a school refers to the process of officially registering and admitting students into the educational institution. It involves the formal inclusion of students into the school's academic programs, allowing them to participate in classes, access resources, and receive instruction. Enrollment numbers reflect the total count of students who are actively attending and are part of the school's educational system during a specific academic period.

The following tables, Table 7 to 9 present the yearly enrollment of the 6 (six) Eklavya Model Residential Schools (EMRS) during the study period:

Table 7: Enrollment of Students (2020-2021)

| EMRS | Gender | Class | Class | Class | Class | Class | Class | Class | Total Enrollment |
|-----------|--------|-------|-------|-------|-------|-------|-------|-------|------------------|
| | | VI | VII | VIII | IX | X | XI | XII | |
| Tipa | Boys | 15 | 15 | 15 | 15 | NA | NA | NA | 60 |
| | Girls | 15 | 15 | 15 | 15 | NA | NA | NA | 60 |
| Lawngtlai | Boys | 15 | 15 | 15 | 15 | NA | NA | NA | 60 |
| | Girls | 15 | 15 | 15 | 15 | NA | NA | NA | 60 |
| Serchhip | Boys | 6 | 18 | 21 | 24 | 2 | 24 | 19 | 114 |
| | Girls | 14 | 10 | 13 | 13 | 8 | 16 | 12 | 86 |
| Lunglei | Boys | 19 | 17 | 17 | 18 | 9 | 18 | 7 | 105 |
| | Girls | 12 | 18 | 16 | 12 | 14 | 15 | 8 | 95 |
| Ngopa | Boys | 30 | 30 | 30 | 30 | NA | NA | NA | 120 |
| | Girls | 30 | 30 | 30 | 30 | NA | NA | NA | 120 |
| Chawngte | Boys | 15 | 15 | 15 | 15 | NA | NA | NA | 60 |
| | Girls | 15 | 15 | 15 | 15 | NA | NA | NA | 60 |

Source: Field Survey 2024

NA: Not Available

Tipa EMRS, Lawngtlai EMRS, Serchhip EMRS, Lunglei EMRS, Ngopa EMRS, and Chawngte EMRS have consistently enrolled students across the primary and secondary levels. Notably, both boys' and girls' sections have shown parity in enrollment figures, highlighting the emphasis on gender equity in education within these institutions.

The enrollment data also indicates that while some schools have maintained a full complement of students throughout the years, others have experienced slight fluctuations. This could be attributed to a variety of factors, including the mobility of families, socio-economic conditions and the challenges posed by external factors such as the COVID-19 pandemic.

Table 8: Enrollment of Students (2021-2022)

| EMRS | Gender | Class | Class | Class | Class | Class | Class | Class | Total Enrollment |
|-----------|--------|-------|-------|-------|-------|-------|-------|-------|------------------|
| | | VI | VII | VIII | IX | X | XI | XII | |
| Tipa | Boys | 15 | 15 | 15 | 15 | NA | NA | NA | 60 |
| | Girls | 15 | 15 | 15 | 15 | NA | NA | NA | 60 |
| Lawngtlai | Boys | 15 | 15 | 15 | 15 | NA | NA | NA | 60 |
| | Girls | 15 | 15 | 15 | 15 | NA | NA | NA | 60 |
| Serchhip | Boys | 6 | 12 | 21 | 19 | 11 | 19 | 23 | 111 |
| | Girls | 13 | 15 | 9 | 17 | 9 | 35 | 12 | 110 |
| Lunglei | Boys | 18 | 17 | 17 | 17 | 18 | 18 | 12 | 117 |
| | Girls | 18 | 18 | 18 | 18 | 12 | 27 | 12 | 123 |
| Ngopa | Boys | 30 | 30 | 30 | 30 | NA | NA | NA | 120 |
| | Girls | 30 | 30 | 30 | 30 | NA | NA | NA | 120 |
| Chawngte | Boys | 15 | 15 | 15 | 15 | NA | NA | NA | 60 |
| | Girls | 15 | 15 | 15 | 15 | NA | NA | NA | 60 |

Source: Field Survey 2024

NA: Not Available

In this academic session, Tipa, Lawngtlai, Ngopa, and Chawngte EMRS have maintained the same number of enrolled students as the previous year. Meanwhile, overall enrollments at Serchhip and Lunglei EMRS have increased compared to the last academic session. However, Serchhip EMRS has experienced a decline in boys' enrollment in Class XI, dropping from 24 boys in 2020-21 to 19 boys in 2021-22. This decrease is mainly due to students transferring to other types of schools, likely influenced by their families' decisions.

Table 9: Enrollment of Students (2022-2023)

| EMRS | Gender | Class | Class | Class | Class | Class | Class | Class | Total Enrollment |
|-----------|--------|-------|-------|-------|-------|-------|-------|-------|------------------|
| | | VI | VII | VIII | IX | X | XI | XII | |
| Tipa | Boys | 15 | 15 | 15 | 15 | 15 | NA | NA | 75 |
| | Girls | 15 | 15 | 15 | 15 | 15 | NA | NA | 75 |
| Lawngtlai | Boys | 15 | 15 | 15 | 15 | 15 | NA | NA | 75 |
| | Girls | 15 | 15 | 15 | 15 | 14 | NA | NA | 75 |
| Serchhip | Boys | 11 | 12 | 14 | 20 | 14 | 19 | 17 | 107 |
| | Girls | 15 | 11 | 19 | 15 | 16 | 33 | 25 | 134 |
| Lunglei | Boys | 16 | 17 | 18 | 18 | 14 | 32 | 18 | 133 |
| | Girls | 16 | 17 | 18 | 18 | 15 | 32 | 29 | 145 |
| Ngopa | Boys | 30 | 30 | 30 | 30 | 30 | NA | NA | 150 |
| | Girls | 30 | 30 | 30 | 30 | 30 | NA | NA | 150 |
| Chawngte | Boys | 15 | 15 | 15 | 15 | 15 | NA | NA | 75 |
| | Girls | 15 | 15 | 15 | 15 | 15 | NA | NA | 75 |

Source: Field Survey 2024

NA: Not Available

Beginning with the 2022-2023 academic session, EMRS Tipa, Lawngtlai EMRS, Chawngte EMRS, and Ngopa EMRS introduced Class X. The inclusion of Class X marks a significant step in the schools' commitment to providing comprehensive education, thus supporting students through a critical phase in their academic journey. Unlike the aforementioned schools, Serchhip EMRS and Lunglei EMRS have consistently offered education from Class VI through Class XII, establishing themselves as comprehensive educational institutions in Mizoram.

The total number of students across all academic sessions for all the EMRS is 3,330. Ngopa EMRS consistently had the highest enrollment across all three academic sessions, with a total of 780 students. Lunglei EMRS and Serchhip EMRS followed, with 718 and 662 students, respectively. Tipa EMRS, Lawngtlai EMRS, and Chawngte EMRS all had equal overall enrollment of 390 students, ranking the lowest among the six schools.

4.6 Dropout Students:

Dropout rates refer to the percentage of students who leave school before completing their course of study. High dropout rates can indicate underlying challenges such as academic difficulties, socio-economic factors, or lack of engagement, which can hinder the overall effectiveness of the educational program.

The detailed interpretation of the dropout percentages for each school across the academic sessions from 2020-2021, 2021-2022, and 2022-2023 of Eklavya Model Residential Schools (EMRS) in Mizoram during the study periods are discussed below:

Table 10: Dropped out Students (2020-2021)

| EMRS | Gender | Class | Class | Class | Class | Class | Class | Class | Total Drop-out | Overall Drop-out Percentage |
|-----------|--------|-------|-------|-------|-------|-------|-------|-------|----------------|-----------------------------|
| | | VI | VII | VIII | IX | X | XI | XII | | |
| Tipa | Boys | 0 | 0 | 0 | 0 | NA | NA | NA | 0 | 0.00% |
| | Girls | 0 | 0 | 0 | 0 | NA | NA | NA | 0 | 0.00% |
| Lawngtlai | Boys | 1 | 3 | 0 | 0 | NA | NA | NA | 4 | 6.67% |
| | Girls | 0 | 6 | 0 | 0 | NA | NA | NA | 6 | 10% |
| Serchhip | Boys | 2 | 3 | 1 | 1 | 0 | 1 | 0 | 8 | 7.01% |
| | Girls | 2 | 4 | 1 | 2 | 0 | 2 | 0 | 10 | 11.62% |
| Lunglei | Boys | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 3 | 2.85% |
| | Girls | 0 | 1 | 3 | 1 | 0 | 0 | 0 | 5 | 5.26% |
| Ngopa | Boys | 2 | 4 | 0 | 3 | NA | NA | NA | 9 | 7.5% |
| | Girls | 1 | 3 | 0 | 2 | NA | NA | NA | 6 | 5% |
| Chawngte | Boys | 0 | 0 | 0 | 0 | NA | NA | NA | 0 | 0.00% |
| | Girls | 0 | 0 | 0 | 0 | NA | NA | NA | 0 | 0.00% |

Source: Field Survey 2024

NA: Not Available

From the above table, Serchhip EMRS (Girls) with 11.62% has the highest dropout percentage in this session, indicating retention challenges among girls. Lawngtlai EMRS (Girls) with 10.00% shows significant dropout among girls, the second highest in this session. Ngopa EMRS (Boys) with 7.50% dropout rate among boys, Serchhip EMRS (Boys) with 7.01% which is slightly lower than Ngopa, but still a concern for Serchhip EMRS. Lawngtlai EMRS (Boys) with 6.67%, moderate dropout rate among boys, Lunglei EMRS (Girls) with 5.26% is the lowest dropout

rate among girls of all the EMRS.

Table: 11: Dropped out Students (2021-2022)

| EMRS | Gender | Class | Class | Class | Class | Class | Class | Class | Total Drop-out | Overall Drop-out Percentage |
|-----------|--------|-------|-------|-------|-------|-------|-------|-------|----------------|-----------------------------|
| | | VI | VII | VIII | IX | X | XI | XII | | |
| Tipa | Boys | 0 | 0 | 0 | 0 | NA | NA | NA | 0 | 0.00% |
| | Girls | 0 | 0 | 0 | 0 | NA | NA | NA | 0 | 0.00% |
| Lawngtlai | Boys | 0 | 3 | 5 | 0 | NA | NA | NA | 8 | 13.33% |
| | Girls | 0 | 2 | 3 | 0 | NA | NA | NA | 5 | 8.33% |
| Serchhip | Boys | 2 | 3 | 1 | 1 | 0 | 1 | 0 | 8 | 7.20% |
| | Girls | 2 | 2 | 1 | 1 | 0 | 1 | 0 | 7 | 6.36% |
| Lunglei | Boys | 1 | 0 | 3 | 1 | 0 | 0 | 0 | 5 | 4.27% |
| | Girls | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 1.62% |
| Ngopa | Boys | 3 | 2 | 5 | 2 | NA | NA | NA | 12 | 10% |
| | Girls | 2 | 3 | 1 | 1 | NA | NA | NA | 7 | 5.83% |
| Chawngte | Boys | 0 | 0 | 0 | 0 | NA | NA | NA | 0 | 0.00% |
| | Girls | 0 | 0 | 0 | 0 | NA | NA | NA | 0 | 0.00% |

Source: Field Survey 2024

NA: Not Available

From the given table above, Lawngtlai EMRS (Boys) with 13.33% has the highest dropout rate, indicating significant retention issues among boys. Ngopa EMRS (Boys) with 10.00% shows continued dropout challenges among boys at Ngopa EMRS. Serchhip EMRS (Boys) with 7.20%, has a slightly improved dropout rate from the previous year. Lawngtlai EMRS (Girls) dropped out is 8.33% and Serchhip EMRS (Girls) with 6.36% saw a reduction in dropout rate. Lunglei EMRS (Girls) with 1.62% has the lowest dropout rate among girls in this academic session.

Table: 12: Dropped-out Students (2022-2023)

| EMRS | Gender | Class | Class | Class | Class | Class | Class | Class | Total Drop-out | Overall Drop-out Percentage |
|-----------|--------|-------|-------|-------|-------|-------|-------|-------|----------------|-----------------------------|
| | | VI | VII | VIII | IX | X | XI | XII | | |
| Tipa | Boys | 0 | 0 | 0 | 0 | 0 | NA | NA | 0 | 0.00% |
| | Girls | 0 | 0 | 0 | 0 | 0 | NA | NA | 0 | 0.00% |
| Lawngtlai | Boys | 2 | 5 | 5 | 0 | 0 | NA | NA | 12 | 16% |
| | Girls | 6 | 2 | 4 | 0 | 0 | NA | NA | 12 | 16% |
| Serchhip | Boys | 1 | 2 | 1 | 2 | 0 | 3 | 0 | 9 | 8.41% |
| | Girls | 1 | 1 | 1 | 2 | 0 | 1 | 0 | 6 | 4.41% |
| Lunglei | Boys | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 1.50% |
| | Girls | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 1.37% |
| Ngopa | Boys | 2 | 1 | 3 | 3 | 1 | NA | NA | 10 | 6.67% |
| | Girls | 2 | 3 | 1 | 1 | 2 | NA | NA | 9 | 6% |
| Chawngte | Boys | 0 | 0 | 0 | 0 | 0 | NA | NA | 0 | 0.00% |
| | Girls | 0 | 0 | 0 | 0 | 0 | NA | NA | 0 | 0.00% |

*Source: Field Survey 2024**NA: Not Available*

From the table, Lawngtlai EMRS (Boys & Girls) with 16.00% recorded the highest dropout rates, indicating major retention issues. Serchhip EMRS (Boys) with 8.41% continued to face dropout challenges. Ngopa EMRS (Boys) with 6.67% dropout rates remained a concern, though they slightly improved, Ngopa EMRS (Girls) with 6.00% faced slightly better dropout rates compared to boys. Serchhip EMRS (Girls) with 4.47% shows an improved retention among girls, Lunglei EMRS with 1.50% (Boys) and 1.37% (Girls) continued to achieve the lowest dropout rates.

4.6.1 Dropout Percentage Analysis (2020-2023):

Lawngtlai EMRS consistently had the highest dropout rates across all three academic sessions, with a peak of 16.00% in the 2022-2023 session. This indicates ongoing challenges in student retention, particularly for both boys and girls. Serchhip EMRS followed closely, especially with high dropout rates among girls in 2020-2021 (11.62%) and boys in 2022-2023 (8.41%). This school faced retention challenges but showed some improvement over the years. Ngopa EMRS ranked third in dropout rates, with boys particularly affected in the 2021-2022 session (10.00%). While the rates slightly improved, they remained a concern. Lunglei EMRS had relatively low dropout rates, peaking at 5.26% for girls in 2020-2021, and consistently ranked

fourth overall. The school showed strong retention, especially in the 2022-2023 session. Tipa EMRS and Chawngte EMRS both reported a 0.00% dropout rate across all academic sessions, indicating excellent student retention and ranking fifth and sixth respectively, for dropout percentages.

4.6.2 Overall Dropout Ranking from all the Academic Sessions (2020-2023):

1st Rank: Tipa EMRS and Chawngte EMRS: No dropouts reported across all sessions.

2nd Rank: Lunglei EMRS: Average dropout percentage is 2.96%. (5.26% for girls in 2020-2021, consistently low in other sessions).

3rd Rank: Ngopa EMRS: Average dropout percentage is 7.39%, considering 10.00% in 2021-2022 and consistent rates around 6-7% in other sessions.

4th Rank: Serchhip EMRS: Average dropout percentage is 8.41% (11.62% in 2020-2021 for girls, 8.41% in 2022-2023 for boys).

5th Rank: Lawngtlai EMRS: Average dropout percentage is 12.67%, considering the highest dropout rates in 2022-2023 at 16.00% and significant rates in earlier sessions.

The primary reasons students from these EMRS dropped out during these academic years include difficulty adhering to school rules and regulations, parents being transferred to other locations for work, and health issues that prevented some students from continuing their education.

4.7 Passed Out Students:

Pass-out rates measure the percentage of students who successfully complete their academic programs and graduate from their respective grades. High pass-out rates reflect the school's ability to retain students and ensure their academic success,

making it a key indicator of educational quality and student achievement.

The detailed interpretation of the dropout and pass-out percentages for each school across the academic sessions from 2020-2021, 2021-2022, and 2022-2023 of Eklavya Model Residential Schools (EMRS) in Mizoram during the study periods are discussed below and the rankings for the highest dropout percentage and pass-out percentage for each academic year are provided as the following:

Table 13: Passed-out Students (2020-2021)

| EMRS | Gender | Class | Class | Class | Class | Class | Class | Class | Total Pass-out | Overall Pass-out Percentage |
|-----------|--------|-------|-------|-------|-------|-------|-------|-------|----------------|-----------------------------|
| | | VI | VII | VIII | IX | X | XI | XII | | |
| Tipa | Boys | 15 | 15 | 15 | 15 | NA | NA | NA | 60 | 100% |
| | Girls | 15 | 15 | 15 | 15 | NA | NA | NA | 60 | 100% |
| Lawngtlai | Boys | 14 | 12 | 15 | 15 | NA | NA | NA | 56 | 93.33% |
| | Girls | 15 | 9 | 15 | 15 | NA | NA | NA | 54 | 90% |
| Serchhip | Boys | 4 | 15 | 20 | 23 | 2 | 23 | 16 | 103 | 90.35% |
| | Girls | 12 | 6 | 12 | 11 | 8 | 14 | 9 | 72 | 83.72% |
| Lunglei | Boys | 19 | 14 | 17 | 17 | 7 | 15 | 5 | 94 | 89.52% |
| | Girls | 17 | 15 | 13 | 17 | 12 | 13 | 6 | 93 | 97.89% |
| Ngopa | Boys | 28 | 26 | 30 | 27 | NA | NA | NA | 111 | 92.5% |
| | Girls | 29 | 27 | 30 | 28 | NA | NA | NA | 114 | 95% |
| Chawngte | Boys | 14 | 12 | 15 | 15 | NA | NA | NA | 56 | 93.33% |
| | Girls | 15 | 9 | 15 | 15 | NA | NA | NA | 54 | 90% |

Source: Field Study 2024

NA: Not Available

From the given table, Tipa EMRS (Boys & Girls) with 100.00% perfect passed out rates for both indicated an excellent academic performance. Lunglei EMRS (Girls) with 97.89%, Ngopa EMRS (Girls) with 95.00% and Chawngte EMRS (Girls) with 90.00% and Lawngtlai EMRS (Girls) with 90% passed out rate. Serchhip EMRS (Girls) secured 83.72% and had the lowest passed out rate among girls of the six schools. Among boys of the EMRS, Serchhip EMRS (Boys) passed out rate is 90.35%, Lawngtlai EMRS (Boys) with 93.33%, Ngopa (Boys) with 92.5% and Chawngte EMRS (boys) with 93.33%. Lunglei EMRS (Boys) with 89.52% has the lowest pass out rate in boys in this academic session.

Table 14: Passed-out Students (2021-2022)

| EMRS | Gender | Class | Class | Class | Class | Class | Class | Class | Total Pass-out | Overall Pass-out Percentage |
|-----------|--------|-------|-------|-------|-------|-------|-------|-------|----------------|-----------------------------|
| | | VI | VII | VIII | IX | X | XI | XII | | |
| Tipa | Boys | 15 | 15 | 15 | 15 | NA | NA | NA | 60 | 100% |
| | Girls | 15 | 15 | 15 | 15 | NA | NA | NA | 60 | 100% |
| Lawngtlai | Boys | 15 | 12 | 10 | 15 | NA | NA | NA | 52 | 86.67% |
| | Girls | 15 | 13 | 12 | 15 | NA | NA | NA | 55 | 91.67% |
| Serchhip | Boys | 5 | 10 | 19 | 15 | 11 | 17 | 23 | 100 | 90.09% |
| | Girls | 11 | 13 | 8 | 14 | 9 | 30 | 12 | 97 | 97% |
| Lunglei | Boys | 17 | 17 | 14 | 15 | 15 | 17 | 11 | 106 | 90.59% |
| | Girls | 18 | 18 | 17 | 17 | 10 | 26 | 12 | 118 | 95.93% |
| Ngopa | Boys | 27 | 28 | 25 | 28 | NA | NA | NA | 108 | 90% |
| | Girls | 28 | 27 | 29 | 29 | NA | NA | NA | 113 | 94.16% |
| Chawngte | Boys | 15 | 12 | 10 | 15 | NA | NA | NA | 52 | 86.67% |
| | Girls | 15 | 13 | 12 | 15 | NA | NA | NA | 55 | 91.67% |

*Source: Field Study 2024**NA: Not Available*

From the above table, Tipa EMRS (Boys & Girls) with 100.00% passed out shows that Tipa EMRS maintained perfect passed out rates which is consistent with the previous year. Serchhip EMRS (Girls) with 97.00% has a strong performance among girls, just shy of perfect. Lunglei EMRS (Girls) with 95.93% is also a high pass-out rate, showing consistent academic success. Ngopa EMRS (Girls) with 94.16% also shows a high passed out rate and Serchhip EMRS (Boys) rate is 90.09%. Lawngtlai and Chawngte EMRS (Boys) with 86.67% each have the lowest passed out rate, indicating potential academic challenges.

Table 15: Passed-out Students (2022-2023)

| EMRS | Gender | Class | Class | Class | Class | Class | Class | Class | Total Pass-out | Overall Pass-out Percentage |
|-----------|--------|-------|-------|-------|-------|-------|-------|-------|----------------|-----------------------------|
| | | VI | VII | VIII | IX | X | XI | XII | | |
| Tipa | Boys | 15 | 15 | 15 | 15 | 7 | NA | NA | 67 | 89.33% |
| | Girls | 15 | 15 | 15 | 15 | 10 | NA | NA | 70 | 93.33% |
| Lawngtlai | Boys | 13 | 10 | 10 | 15 | 5 | NA | NA | 53 | 70.67% |
| | Girls | 9 | 13 | 11 | 15 | 7 | NA | NA | 55 | 73.33% |
| Serchhip | Boys | 10 | 10 | 12 | 15 | 14 | 16 | 17 | 94 | 87.85% |
| | Girls | 14 | 10 | 17 | 12 | 16 | 30 | 20 | 119 | 88.80% |
| Lunglei | Boys | 16 | 16 | 17 | 18 | 10 | 26 | 15 | 118 | 88.72% |
| | Girls | 16 | 16 | 16 | 18 | 12 | 25 | 25 | 128 | 88.27% |
| Ngopa | Boys | 13 | 29 | 27 | 27 | 29 | NA | NA | 125 | 83.33% |
| | Girls | 13 | 27 | 29 | 29 | 28 | NA | NA | 126 | 84% |
| Chawngte | Boys | 13 | 10 | 10 | 10 | 5 | NA | NA | 48 | 64% |
| | Girls | 9 | 13 | 11 | 15 | 7 | NA | NA | 55 | 73.33% |

Source: Field Survey 2024

NA: Not Available

In this academic year from the table, Tipa EMRS (Girls) passed out rate is 93.33% which is slightly lower than the previous year. Lunglei EMRS (Girls) passed out rate is 88.27%, Serchhip EMRS (Girls) is 88.80% and Ngopa EMRS (Girls) with 84.00%. Chawngte (Girls) and Lawngtlai (Girls) passed out rates are 73.33% each, which is the lowest rate in this academic session. Lunglei EMRS (Boys) passed out rate is 88.72%, Serchhip (Boys) with 87.85%, Lawngtlai (Boys) rate is 70.67%, Ngopa EMRS has 83.33% and Tipa (Boys) with 89.33%. Chawngte EMRS (Boys) with 64.00% is the lowest passed out rate among boys, indicating significant academic challenges.

7.1 Passed -out Percentage Analysis (2020-2023):

Tipa EMRS consistently achieved high pass-out rates, with perfect 100% rates in 2020-2021 and 2021-2022. The school slightly declined in 2022-2023 but still maintained the highest overall performance, ranking first. Lunglei EMRS also demonstrated strong academic outcomes, with consistently high pass-out rates across all sessions. This school ranked second overall, reflecting solid academic performance and student success. Ngopa EMRS ranked third in pass-out percentages,

with strong early performance but a slight decline in 2022-2023, particularly among girls. Serchhip EMRS showed good pass-out rates but with some variability, particularly among boys. This variability placed the school fourth overall in pass-out performance. Chawngte EMRS had a strong start but saw a significant decline in pass-out rates in 2022-2023, particularly for boys, leading to a fifth-place ranking. Lawngtlai EMRS consistently struggled with pass-out rates, particularly in 2022-2023, where the rates dropped significantly for both boys (70.67%) and girls (73.33%), ranking it last overall in pass-out performance.

4.7.2 Overall Passed Out Ranking from all Academic Sessions (2020-2023):

1st Rank: Tipa EMRS: Average Passed out percentage is 96.44%, considering consistent 100% in 2020-2021 and 2021-2022, slight decline in 2022-2023.

2nd Rank: Lunglei EMRS: Average pass-out percentage is 91.83%, strong performance across all sessions, with high consistency.

3rd Rank: Ngopa EMRS: Average pass-out percentage is 90.49%, stable performance, with some slight declines in 2022-2023.

4th Rank: Serchhip EMRS: Average pass-out percentage is 89.74%, good performance but with more variability compared to others.

5th Rank: Chawngte EMRS: Average pass-out percentage is 82.67%, high in early sessions, but significant drop in 2022-2023.

6th Rank: Lawngtlai EMRS: Average pass-out percentage is 83.56%, lowest overall, with significant challenges in 2022-2023.

4.8 Overall Dropped Out and Passed Out Ranking Summary:

Lawngtlai EMRS faced the most significant challenges in both dropped out and passed out percentages, ranking highest in dropout rates and lowest in pass-out rates

overall.

Tipa EMRS and Lunglei EMRS emerged as the strongest performers, with Tipa EMRS leading in pass-out rates and both schools maintaining excellent retention with no dropouts reported. Serchhip EMRS and Ngopa EMRS showed mixed results, with some sessions reflecting higher dropout rates and variability in pass-out percentages, placing them in the middle ranks. Chawngte EMRS ranked last in dropout percentages, reflecting excellent retention, but faced significant challenges in pass-out rates in the most recent session. This analysis highlights the areas where each school excels and where improvements are needed, offering a clear picture of the educational outcomes across the EMRS in Mizoram over the three academic sessions. Tipa EMRS and Lunglei EMRS demonstrate strong academic outcomes and effective student retention strategies. Tipa EMRS, in particular, achieved perfect pass-out rates in the earlier sessions and maintained strong performance even as new challenges arose. These schools set a benchmark for academic excellence and student support within the EMRS system.

Overall, this analysis underscores the diversity of challenges and successes across the EMRS in Mizoram. While some schools are excelling in both retention and academic performance, others are struggling to meet these benchmarks. Moving forward, targeted strategies that address specific needs at each school will be crucial in ensuring that all EMRS institutions can provide high-quality education and foster the success of their students.

4.9 Comparison Based on Students' Perspectives:

Every student has their own perspective and experience about their school and for schools to function and thrive, we must seek and consider the students' perspectives. The perspectives shared by students serve as a reminder that education is not just about imparting knowledge but also respecting and understanding the viewpoints of those who are actually learning and are being taught by the educators.

While comparing the schools, the proportion for the first school is considered as ‘p1’ and the proportion for the second school as ‘p2’ and the combined proportion as ‘p’ in each table, the combined proportion ‘p’ is the total positive responses calculated from the total responses. The p-value is less than 0.00 (<0.001) in all the students’ perspectives i.e., the degree of difference is indistinct in the p-value, we therefore did not reflect the p-value to test the level of significance. Instead, the calculated z-statistic with critical value at 5% significant level (± 1.96) was utilized to capture the degree of differences.

4.9.1 Chawngte EMRS and Lawngtlai EMRS:

For capturing students’ perspectives, the 6 EMRS were compared based on 69 indicators which are closed ended with ‘Yes’ and ‘No’ and the table below present the comparison between Chawngte EMRS and Lawngtlai EMRS.

Table 16: Case Summary of Chawngte and Lawngtlai EMRS

| Schools | Responses | | |
|-----------|-----------|------|------|
| | Yes | No | |
| Chawngte | 3598 | 302 | |
| Lawngtlai | 2458 | 1442 | |
| Total | 6056 | 1744 | 7800 |

Source; Field Survey 2024

As seen in the table above, the total number of positive responses from Chawngte EMRS is 3598 and the negative responses is 302, whereas in Lawngtlai EMRS 2458 positive responses were observed with 1442 negative responses. Taking these responses, the two EMRS were compared using two proportion z-test as below:

Table 17: Two-proportion z-test of Chawngte and Lawngtlai EMRS

| Schools | Proportion of 'Positive' Responses | z-statistic (2-tailed) |
|-----------|------------------------------------|------------------------|
| Chawngte | 0.9226 | 31.0957 |
| Lawngtlai | 0.6303 | |
| Combined | 0.7764 | |

Source; Own Calculation, 2024

The combined 'p' value is the total positive responses calculated from the total responses. The above analysis shows that the $|z|=31.0957$ is greater than the critical value at 5% significant level (± 1.96). Also, the extremely high z-score of 31.09 shows that their difference is quite high, which is also aligned with the proportion of the positive responses from the two schools, where Chawngte has 92% and Lawngtlai has 63%. Therefore, the null hypothesis cannot be accepted. And since the questionnaire is structured in such a way that it reflects the quality of the schools, from the perspectives of the students, it can conclude that there is a significant difference in the quality of the two schools and Chawngte EMRS fare better than Lawngtlai EMRS.

4.9.2 Chawngte EMRS and Lunglei EMRS:

Chawngte and Lunglei EMRSs were compared through the 69 indicators and the case summary is presented below:

Table 18: Case Summary of Chawngte and Lunglei

| Schools | Responses | | |
|----------|-----------|------|------|
| | Yes | No | |
| Chawngte | 3598 | 302 | 7800 |
| Lunglei | 2724 | 1176 | |
| Total | 6322 | 1478 | |

Source; Field Survey 2024

As shown in the table above, Chawngte EMRS received a total of 3,598 positive responses and 302 negative responses. In contrast, Lunglei EMRS had 2,774 positive responses and 1,176 negative responses. Using these data, a two-proportion z-test was conducted to compare the responses from the two EMRSs outlined below.

Table 19: Two-proportion z-test of Chawngte and Lunglei EMRS

| Schools | Proportion of ‘Positive’ Responses | z-statistic (2 – tailed) |
|----------------|---|---------------------------------|
| Chawngte | 0.9226 | 25.1798 |
| Lunglei | 0.6985 | |
| Combined | 0.8105 | |

Source: Own Calculation, 2024

In the above analysis, the calculated z-statistic (25.1798) is significantly higher than the critical value of ± 1.96 at the 5% significance level. This indicates that it can reject the null hypothesis, which states that there is no significant difference in the quality of the schools from the students' perspectives. Furthermore, the proportion of positive responses for Chawngte (92%) is notably higher than that for Lunglei (69%). Therefore, it can be concluded that, from the students' perspectives, the quality of Chawngte EMRS is higher than that of Lunglei EMRS, with a z-test difference of 25.1798.

4.9.3 Chawngte EMRS and Serchhip EMRS:

Chawngte and Serchhip EMRSs were compared using the same 72 indicators, and the case summary is presented below:

Table 20: Case Summary of Chawngte and Serchhip

| Schools | Responses | | |
|----------------|------------------|-----------|------|
| | Yes | No | |
| Chawngte | 3598 | 302 | |
| Serchhip | 2302 | 1598 | |
| Total | 5900 | 1900 | 7800 |

Source; Field Survey 2024

Chawngte EMRS received a total of 3,598 positive responses and 302 negative responses. In contrast, Serchhip EMRS had 2,304 positive responses and 1,598 negative responses. Using these data, a two-proportion z-test was conducted to compare the responses from the two EMR schools.

Table 21: Two-proportion z-test of Chawngte EMRS and Serchhip EMRS

| Schools | Proportion of 'Positive' Responses | z-statistic (2 – tailed) |
|----------|------------------------------------|--------------------------|
| Chawngte | 0.9226 | 34.2577 |
| Serchhip | 0.5903 | |
| Combined | 0.7564 | |

Source: Own Calculation, 2024

The proportion of positive responses for Chawngte (92%) is higher than that of Serchhip (59%). The combined 'p' value is the total positive responses calculated from the total responses. The calculated $|z|=34.2577$ is greater than the critical value at 5% significant level (± 1.96). This high z-statistic indicates that the difference in the proportions of positive responses between Chawngte EMRS and Serchhip EMRS is statistically significant. It is therefore reject the null hypothesis and conclude that the quality of Chawngte EMRS is higher than Serchhip from students' viewpoints.

4.9.4 Chawngte EMRS and Ngopa EMRS:

These two EMRS were compared using the same indicators to capture the quality of both the schools based on students' viewpoints. The case summary of both the schools is given as under:

Table 22: Case Summary of Chawngte EMRS and Ngopa EMRS

| Schools | Responses | | |
|----------|-----------|------|------|
| | Yes | No | |
| Chawngte | 3598 | 302 | 7800 |
| Ngopa | 3068 | 832 | |
| Total | 6666 | 1134 | |

Source; Field Survey 2024

The case summary of Chawngte and Ngopa EMRSs given in Table 4.2.2(a) above was analyzed by utilizing two proportion z-test. As seen in the table, the proportion of positive responses in Chawngte EMRS is higher than Ngopa but the difference is lower compared to the other schools previously compared with Chawngte in this section. The result of the two tailed z-test below captured this difference:

Table 23: Two-proportion z-test of Chawngte and Ngopa EMRS

| Schools | Proportion of 'Positive' Responses | z-statistic (2 – tailed) |
|----------------|---|---------------------------------|
| Chawngte | 0.9226 | 17.03 |
| Ngopa | 0.7867 | |
| Combined | 0.8546 | |

Source: Own Calculation, 2024

Since the proportion of positive responses for Chawngte is 0.9226 while that of Ngopa is 0.6985 and the calculated z-statistic (17.03) is significantly higher than the critical value of ± 1.96 at 5% significance level, the null hypothesis cannot be accepted. It can therefore be determined that, from the students' perspectives, Chawngte EMRS performance is better than that of Ngopa EMRS, with a z-test significant level of 17.03.

4.9.5 Chawngte EMRS and Tipa EMRS:

For comparing the two schools, the responses were summarized in order to apprehend the positives and negatives perspectives of the students with respect to the quality of their schools. And, the combined positives scores were further captured to determine the z-test value.

Table 24: Case Summary of Chawngte and Tipa

| Schools | Responses | | |
|----------------|------------------|-----------|------|
| | Yes | No | |
| Chawngte | 3598 | 302 | |
| Tipa | 2593 | 1307 | |
| Total | 6191 | 1609 | 7800 |

Source: Field Survey 2024

In Chawngte EMRS a total of 3,598 positive responses and 302 negative responses of students were observed. Dissimilarity, Tipa EMRS had 2,593 positive responses and 1,307 negative responses with 'p' proportion of 6191. Using these data, a two-proportion z-test was conducted to compare the responses from the two EMR schools.

Table 25: Two-proportion z-test of Chawngte and Tipa EMRS

| Schools | Proportion of 'Positive' Responses | z-statistic (2 – tailed) |
|----------|------------------------------------|--------------------------|
| Chawngte | 0.9226 | 28.0109 |
| Tipa | 0.6649 | |
| Combined | 0.7937 | |

Source: Own Calculation, 2024

The proportion scored of Chawngte EMRS is 0.9226 whereas Tipa EMRS scored 0.6649 and the proportional difference is 0.2577. The combined 'p' value is the total positive responses calculated from the total responses. Since the calculated $|z|=28.0109$ is greater than the critical value at 5% significant level (± 1.96) it indicates that the difference in the proportions of positive responses between Chawngte EMRS and Lawngtlai EMRS is statistically significant. Therefore, the null hypothesis cannot be accepted. Also, the parameters utilized to capture students' viewpoints is structured to reflect the quality of the schools, a conclusion that can be drawn is that there is a significant difference in the quality of the two schools where Chawngte EMRS quality is better than that of Tipa EMRS.

4.9.6 Lunglei and Lawngtlai EMRS:

Lunglei and Lawngtlai EMRSs were compared using the 72 indicators and the case summary is presented below:

Table 26: Case Summary of Lunglei and Lawngtlai EMRS

| Schools | Responses | | |
|-----------|-----------|------|------|
| | Yes | No | |
| Lunglei | 2724 | 1176 | |
| Lawngtlai | 2458 | 1442 | |
| Total | 5182 | 2618 | 7800 |

Source: Field Survey 2024

As shown in the table above, Lunglei EMRS received a total of 2,724 positive responses and 1176 negative responses. In contrast, Lawngtlai EMRS had 2,458

positive responses and 1,442 negative responses. Using these data, a two-proportion z-test was conducted to compare the responses from the two EMRS as outlined below:

Table 27: Two-proportion z-test of Lunglei and Lawngtlai EMRS

| Schools | Proportion of 'Positive' Responses | z-statistic (2 – tailed) |
|----------------|---|---------------------------------|
| Lunglei | 0.6985 | 6.3738 |
| Lawngtlai | 0.6303 | |
| Combined | 0.6644 | |

Source: Own Calculation, 2024

Since the calculated z-statistic (6.3738) exceeds the critical value of ± 1.96 at the 5% significance level it cannot accept the null hypothesis, which posits no significant difference in the quality of the schools from the students' perspectives. Consequently, it can be concluded that, according to the students, the quality of Lunglei EMRS is higher than that of Lawngtlai EMRS with a z-test difference of 6.3738.

4.9.7 Lunglei and Serchhip EMRS:

The case summary of Lunglei and Serchhip EMRS based on the various parameters utilized for the comparative analysis is given below:

Table 28: Case Summary of Lunglei and Serchhip EMRS

| Schools | Responses | | |
|-----------------|------------------|-----------|------|
| | Yes | No | |
| Lunglei | 2724 | 1176 | |
| Serchhip | 2302 | 1598 | |
| Total | 5026 | 2774 | 7800 |

Source: Field Survey 2024

Lunglei EMRS received 2,724 positive responses and 1,176 negative responses, while Serchhip EMRS received 2,302 positive responses and 1,598 negative responses. Based on this data, a two-proportion z-test was conducted to compare the

responses from the two EMRS.

Table 29: Two-proportion z-test of Lunglei and Serchhip EMRS

| Schools | Proportion of 'Positive' Responses | z-statistic (2 – tailed) |
|----------|------------------------------------|--------------------------|
| Lunglei | 0.6985 | 10.0185 |
| Serchhip | 0.5903 | |
| Combined | 0.6444 | |

Source: Own Calculation, 2024

Between the two schools, the z-statistic (10.0185) exceeds the critical value of ± 1.96 at the 5% significance level, we therefore reject the null hypothesis, which stated that there is no significant difference in the quality of the schools from the students' perspectives. Therefore, it can be determined that based on the students' responses, Lunglei EMRS is of higher quality than Serchhip EMRS, with a z-test difference of 10.0185.

4.9.8 Lunglei and Ngopa EMRS:

These EMRSs were compared using the select parameters and the result is summarized as below:

Table 30: Case Summary of Lunglei and Ngopa EMRS

| Schools | Responses | | |
|----------------|-----------|------|------|
| | Yes | No | |
| Lunglei | 2724 | 1176 | |
| Ngopa | 3068 | 832 | |
| Total | 5792 | 2008 | 7800 |

Source: Field Survey 2024

Lunglei EMRS received 2,724 positive responses and 1,176 negative responses, whereas Ngopa EMRS received 3,068 positive responses and 832 negative responses. Based on this data, a two-proportion z-test was performed to compare the responses from the two EMRS.

Table 31: Two-proportion z-test of Lunglei and Ngopa EMRS

| Schools | Proportion of 'Positive' Responses | z-statistic (2 – tailed) |
|----------------|---|---------------------------------|
| Lunglei | 0.6985 | -8.909 |
| Ngopa | 0.7867 | |
| Combined | 0.7426 | |

Source: Own Calculation, 2024

Between the two schools, the z-statistic (-8.909) exceeds the critical value of ± 1.96 at the 5% significance level, we therefore reject the null hypothesis, which stated that there is no significant difference in the quality of the schools from the students' perspectives. The z-score is also aligned with the proportion of positive responses where Ngopa scored 78% and Lunglei secured 69%. Therefore, it can be determined that based on the students' responses, Ngopa EMRS is of higher quality than Lunglei EMRS, with a z-test difference of -8.909.

4.9.9 Lunglei and Tipa EMRS:

These two EMRS were compared using the same indicators to capture the quality of both the schools based on students' viewpoints. The case summary of both the schools is given as under:

Table 32: Case Summary of Lunglei and Tipa EMRS

| School | Responses | | |
|----------------|------------------|-----------|------|
| | Yes | No | |
| Lunglei | 2724 | 1176 | |
| Tipa | 2593 | 1307 | |
| Total | 5317 | 2483 | 7800 |

Source: Field Survey 2024

In Lunglei EMRS there are 2,724 positive and 1,176 negative responses, whereas in Tipa EMRS there are 3,593 positive and 1307 negative responses. Based on these responses, a two-proportion z-test was performed to compare the responses from the

two EMRS.

Table 33: Two-proportion z-test of Lunglei and Tipa EMRS

| School | Proportion of 'Positive' Responses | z-statistic (2 – tailed) |
|----------|------------------------------------|--------------------------|
| Lunglei | 0.6985 | 3.2 |
| Tipa | 0.6649 | |
| Combined | 0.6817 | |

Source: Own Calculation, 2024

Since the calculated z-statistic, 3.2 is greater than the critical value, we cannot accept the null hypothesis. The proportion between the two schools is quite minimal at 69% and 66%, this shows that though there is a difference in the quality of the schools from students' viewpoints, but their difference is not as significant as that of the other schools compared with Lunglei.

4.9.10 Lawngtlai and Serchhip EMRS:

These two EMRS schools were compared using the same indicators to assess their quality based on students' opinions. The case summaries of both schools are provided below:

Table 34: Case Summary of Lawngtlai and Serchhip EMRS

| School | Responses | | |
|-----------|-----------|------|------|
| | Yes | No | |
| Lawngtlai | 2458 | 1442 | |
| Serchhip | 2302 | 1598 | |
| Total | 4760 | 3040 | 7800 |

Source: Field Survey 2024

As seen in the table above, the total number of positive responses from Lawngtlai EMRS is 2458 with 1442 negative responses whereas it was observed that there are 2302 positive and 1598 negative responses in Serchhip EMRS. Taking these responses, the two EMRS were compared using two proportion z-test as below:

Table 35: Two-proportion z-test of Lawngtlai and Serchhip EMRS

| School | Proportion of 'Positive' Responses | z-statistic (2 – tailed) |
|-----------|------------------------------------|--------------------------|
| Lawngtlai | 0.6303 | 3.64 |
| Serchhip | 0.5903 | |
| Combined | 0.6103 | |

Source: Own Calculation, 2024

Since the calculated z-statistic (3.64) exceeds the critical value of ± 1.96 at the 5% significance level we cannot accept the null hypothesis, which posits no significant difference in the quality of the schools from the students' perspectives. Consequently, it can be concluded that, according to the students, the quality of Lawngtlai EMRS is higher than that of Serchhip EMRS with a z-test difference of 3.64. Although there is a difference in the quality of the schools from the students' viewpoints, it is not as pronounced as the difference observed in the other EMRS.

4.9.11 Lawngtlai and Ngopa EMRS:

These two EMRS schools were compared using the same indicators to assess their quality based on students' opinions. The case summaries of both schools are provided below:

Table 36: Case Summary of Lawngtlai and Ngopa EMRS

| School | Responses | | |
|--------------|-----------|------|------|
| | Yes | No | |
| Lawngtlai | 2458 | 1442 | |
| Ngopa | 3068 | 832 | |
| Total | 5526 | 2274 | 7800 |

Source: Field Survey 2024

Students' positive responses from Lawngtlai EMRS is 2458 with 1442 negative responses whereas there are 3068 positive and 832 negative responses in Ngopa EMRS. Taking these responses, the two EMRS were compared in the next table.

Table 37: Two-proportion z-test of Lawngtlai and Ngopa EMRS

| School | Proportion of 'Positive' Responses | z-statistic (2 – tailed) |
|---------------|---|---------------------------------|
| Lawngtlai | 0.6303 | -15.1845 |
| Ngopa | 0.7867 | |
| Combined | 0.7085 | |

Source: Own Calculation, 2024

Since the calculated z-statistic, -15.1845 is greater than the critical value, we reject the null hypothesis. The proportion between the two schools is 63% for Lawngtlai and 78% for Ngopa, which also shows that Ngopa fare better in terms of the school quality when compared with Lawngtlai EMRS. We can therefore, concluded that, there is a significant difference between these two EMRS.

4.9.12 Lawngtlai and Tipa EMRS:

These two EMRS schools were compared using the same indicators to assess their quality based on students' opinions. The case summaries of both schools are provided below:

Table 38: Case Summary of Lawngtlai and Tipa EMRS

| School | Responses | | |
|------------------|------------------|-----------|------|
| | Yes | No | |
| Lawngtlai | 2458 | 1442 | |
| Tipa | 2593 | 1307 | |
| Total | 5051 | 2749 | 7800 |

Source: Field Survey 2024

The table above summarized students' perspectives regarding the quality of their schools, positive responses from Lawngtlai EMRS is 2,458, with 1,442 negative responses, whereas Tipa EMRS has 2,593 positive responses and 1,307 negative

responses. These responses were equated with a two tailed z-test given below:

Table 39: Two-proportion z-test of Lawngtlai and Tipa EMRS

| School | Proportion of 'Positive' Responses | z-statistic (2 – tailed) |
|-----------|------------------------------------|--------------------------|
| Lawngtlai | 0.6303 | -3.2037 |
| Tipa | 0.6649 | |
| Combined | 0.6476 | |

Source: Own Calculation, 2024

While comparing the schools, the first school is considered as 'p1' and the second school as 'p2' and the combined value as 'p' in each table, the combined 'p' value is the total positive responses calculated from the total responses. In the proportion of positive responses, Tipa secured 66% and Lawngtlai scored 63%. Moreover, the z-significant difference is -3.2037 which is greater than the critical value of ± 1.96 at 5% significance level we cannot accept the null hypothesis. It can therefore be concluded that, Tipa is better than Lawngtlai EMRS in terms of quality from the students' viewpoints.

4.9.13 Ngopa and Serchhip EMRS:

These two EMRS schools were compared using the same indicators to assess their quality based on students' opinions. The case summaries of both schools are provided below:

Table 40: Case Summary of Ngopa and Serchhip EMRS

| School | Responses | | |
|--------------|-----------|------|------|
| | Yes | No | |
| Ngopa | 3068 | 832 | 7800 |
| Serchhip | 2302 | 1598 | |
| Total | 5370 | 2430 | |

Source: Field Survey 2024

Students' positive responses from Ngopa EMRS is 3068 with 832 negative responses

whereas there are 2302 positive and 1598 negative responses in Serchhip EMRS. Taking these responses, the two EMRS were compared in the next table.

Table 41: Two-proportion z-test of Ngopa and Serchhip EMRS

| School | Proportion of 'Positive' Responses | z-statistic (2 – tailed) |
|----------|------------------------------------|--------------------------|
| Ngopa | 0.7867 | 18.7048 |
| Serchhip | 0.5903 | |
| Combined | 0.6885 | |

Source: Own Calculation, 2024

Between the two schools, the z-statistic (18.7048) exceeds the critical value of ± 1.96 at the 5% significance level, we therefore reject the null hypothesis, which stated that there is no significant difference in the quality of the schools from the students' perspectives. Therefore, it can be determined that based on the students' responses, Ngopa EMRS is of higher quality than Serchhip EMRS, with a z-test difference of 18.7048.

4.9.14 Ngopa and Tipa EMRS:

These two EMRS schools were compared using the same indicators to assess their quality based on students' opinions. The case summaries of both schools are provided below:

Table 42: Case Summary of Ngopa and Tipa EMRS

| School | Responses | | |
|--------------|-----------|------|------|
| | Yes | No | |
| Ngopa | 3068 | 832 | 7800 |
| Tipa | 2593 | 1307 | |
| Total | 5661 | 2139 | |

Source: Field Survey 2024

Ngopa EMRS received a total of 3068 positive responses and 832 negative responses. In contrast, Tipa EMRS had 2593 positive responses and 1307 negative

responses. Using these data, a two-proportion z-test was conducted to compare the responses from the two EMR schools.

Table 43: Two-proportion z-test of Ngopa and Tipa EMRS

| School | Proportion of 'Positive' Responses | z-statistic (2 – tailed) |
|----------|------------------------------------|--------------------------|
| Ngopa | 0.7867 | 12.0594 |
| Tipa | 0.6649 | |
| Combined | 0.7258 | |

Source: Own Calculation, 2024

Since the calculated z-statistic, 12.0594 is greater than the critical value, we cannot accept the null hypothesis. The proportion between the two schools is 78 % and 66 %, this shows that Ngopa EMRS is better than Tipa EMRS from the students' viewpoints with 12.0594 z-test difference.

4.9.15 Serchhip and Tipa EMRS:

Serchhip and Tipa EMRSs were compared using the 72 indicators and the case summary is presented below:

Table 44: Case Summary of Serchhip and Tipa EMRS

| School | Responses | | |
|-----------------|-----------|------|------|
| | Yes | No | |
| Serchhip | 2302 | 1598 | 7800 |
| Tipa | 2593 | 1307 | |
| Total | 4895 | 2905 | |

Source: Field Survey 2024

In Serchhip EMRS, there are 2302 positive and 1598 negative responses, whereas in Tipa EMRS there are 2593 positive and 1307 negative responses. Based on these responses, a two-proportion z-test was performed to compare the responses from the

two EMRS.

Table 45: Two-proportion z-test of Serchhip and Tipa EMRS

| School | Proportion of 'Positive' Responses | z-statistic (2 – tailed) |
|----------|------------------------------------|-----------------------------|
| Serchhip | 0.5903 | -6.819 |
| Tipa | 0.6649 | |
| Combined | 0.6276 | |

Source: Own Calculation, 2024

Since the proportion of positive responses for Serchhip is 0.5903 while that of Tipa is 0.6649 and the calculated z-statistic (-6.819) is significantly higher than the critical value of ± 1.96 at 5% significance level, the null hypothesis cannot be accepted. It can therefore be determined that, from the students' perspectives, Tipa EMRS performance is better than that of Serchhip EMRS, with a z-test significant level of -6.819.

4.9.16 Overall Ranks of the Schools: Students' Perspectives:

The comparative analysis reveals that the proportion of positive responses varies between the schools. This indicates that the quality of schools, based on students' perspectives and experiences, is not uniform. Given that hypothesis testing has confirmed these differences in quality, we can create a scale to rank schools performance. By using the proportions of positive responses as a unit of measurement, we ranked the scores of the schools on a scale of 0 to 1, where a higher score representing a better ranking.

Table 46: Schools Rank

| Rank | Schools | Scores |
|------|----------------|--------|
| 1 | Chawngte EMRS | 0.9226 |
| 2 | Ngopa EMRS | 0.7867 |
| 3 | Lunglei EMRS | 0.6985 |
| 4 | Tipa EMRS | 0.6649 |
| 5 | Lawngtlai EMRS | 0.6303 |
| 6 | Serchhip EMRS | 0.5903 |

Source: Own Calculation, 2024

The table above highlights the different positive responses proportions of the six EMRS under study. As per the subjective opinions of the students, Chawngte EMRS is the best school out of the six school with 92% positive proportion and Serchhip EMRS has the poorest performance with 59% positive proportion.

4.10 Assessment of the Principals' Perceptions on the Schools:

In the dynamic world of education, the role of principals extends beyond managing day-to-day school operations. They are pivotal in shaping school policy, significantly impacting the overall functioning and success of educational institutions. Principals are not just administrators; they are policymakers responsible for developing, implementing, and evaluating school policies that align with the school's vision and mission. These policies cover a wide range of areas, including academic programs, student behavior, staff development, and resource allocation.

A principal's role in shaping school policy begins with a clear vision, serving as a roadmap to guide policy development in support of the school's goals. Principals communicate this vision to all stakeholders, fostering a shared understanding and commitment to the school's objectives. They recognize the importance of collaboration in policymaking, working closely with teachers, parents, students, and community members to gather input and ensure that policies reflect the needs and values of the school community. Moreover, principals play a crucial role in evaluating the effectiveness of school policies. They use data and feedback to assess policy outcomes, making adjustments as needed to ensure continuous improvement. As education continues to evolve, the role of principals in policymaking will remain paramount.

The principals of the EMRS under study furnished their opinions on the functioning and management of their schools based on 26 parameters. Their perspectives were analyzed using Chi Square test. The observed responses were gathered from the responses and the expected responses were calculated from the collected data. The degree of freedom is calculated using the formula:

$$d.f = n - 1$$

where,

n = the total number of schools

Since the total number of schools is six (6) we have,

$$d.f = 6 - 1 = 5$$

Subsequently, the critical value at df=5 and 0.05 significance level are approximately 11.07 based on the Chi-Square table, the following table is computed.

Table 47: Principals' Perspectives Summary

| School | Responses | | Row Total |
|---------------------|-----------|----|--------------------------|
| | Yes | No | |
| Tipa | 19 | 7 | 26 |
| Chawngte | 21 | 5 | 26 |
| Serchhip | 21 | 5 | 26 |
| Lunglei | 21 | 5 | 26 |
| Ngopa | 20 | 6 | 26 |
| Lawngtlai | 18 | 8 | 26 |
| Column Total | 120 | 36 | Grand Total = 156 |

Source; Field Survey 2024

The row total represents the total number of responses from each EMRS and the column total shows the total positives and negatives responses of all the schools. This table is formed to obtain the expected frequencies as under:

$$\text{Expected frequencies, } E = \frac{\text{Row Total} \times \text{Column Total}}{\text{Grand Total}}$$

$$\text{Therefore, } E_{\text{Yes}} = \frac{26 \times 120}{156} = 20$$

$$E_{\text{No}} = \frac{26 \times 36}{156} = 6$$

Based on the above calculation, the expected responses and observed responses table was formed to test the null hypothesis that there is no significant variation in the functioning of the schools from the perspectives of the principals.

Table 48: Principals’ Perspectives Using Chi-Square

| School | Expected Responses | | Observed Responses | | χ^2 | |
|--------------------|--------------------|----|--------------------|----|-----------------|------|
| | Yes | No | Yes | No | Yes | No |
| Tipa | 20 | 6 | 19 | 7 | 0.05 | 0.17 |
| Chawngte | 20 | 6 | 21 | 5 | 0.05 | 0.17 |
| Serchhip | 20 | 6 | 21 | 5 | 0.05 | 0.17 |
| Lunglei | 20 | 6 | 21 | 5 | 0.05 | 0.17 |
| Ngopa | 20 | 6 | 20 | 6 | 0 | 0 |
| Lawngtlai | 20 | 6 | 18 | 8 | 0.2 | 0.67 |
| ColumnTotal | | | | | $\chi^2 = 1.92$ | |

Source; Own Calculation, 2024

The critical value for $df = 5$ at the 0.05 significance level is approximately 11.07. Since the computed chi-square 1.92 is less than the critical value of 11.07, we accept the null hypothesis that from the principals’ viewpoints, there is no significant variation on the functioning of the six EMRS under study.

4.11 Comparison Based on Teachers’ Perspectives:

Teachers have numerous responsibilities that extend beyond the classroom, shaping the educational experience and fostering the growth of their students. Their primary duties include planning and preparing lessons, which requires careful consideration and thoughtful organization to ensure effective and meaningful learning experiences.

The role of teachers in the classroom, society, and the world has evolved significantly over time. Today, school administrators recognize and embrace the unique learning abilities of all students. They understand that children should be active creators of knowledge, not just passive consumers. These changes in education have been driven by significant advancements in information technology and knowledge access. Thousands of teachers have adapted to these changes, employing new techniques and tools, and taking on evolving responsibilities and expectations. This shift has required teachers to continually reinvent themselves and enhance their teaching capabilities across all aspects of their profession.

This section presents the opinions of 66 teachers from the six EMRS schools gathered through structured questionnaires. Based on their responses, a comparative study was conducted, linking two schools at a time using a z-test to evaluate and compare all the schools.

4.11.1 Chawngte and Lawngtlai EMRS:

The opinions of the teachers were collected using 44 parameters. These parameters were set to capture the duties of the teachers in teaching the students, their participations in various academic activities and their personal academic development. The table below presents the case summary of Lawngtlai and Chawngte EMRS based on the perceptions of the teachers.

Table 49: Chawngte and Lawngtlai EMRS: Case Summary

| Schools | Responses | | |
|-----------|-----------|-----|-----|
| | Yes | No | |
| Chawngte | 174 | 90 | |
| Lawngtlai | 205 | 103 | |
| Total | 379 | 193 | 572 |

Source: Field Survey, 2024

As seen in the table above, the total number of positive responses from Chawngte EMRS is 174 and the negative responses is 90, whereas in Lawngtlai EMRS 205 positive responses were observed with 103 negative responses. Taking these responses, the two EMRS were compared using two proportion z-test as below:

Table 50: Chawngte and Lawngtlai EMRS: Two-proportion z-test

| Schools | Proportion of Positive Responses | z-statistic (2 – tailed) | p – value |
|-----------|----------------------------------|--------------------------|-----------|
| Chawngte | 0.6591 | -0.1639 | 0.87288 |
| Lawngtlai | 0.6656 | | |
| Combined | 0.6626 | | |

Source: Own Calculation, 2024

Two-proportion z-test is utilized to evaluate the difference in the proportion of

positive responses between the two schools. At a significance level of 0.05, we can support the null hypothesis as indicated by the z-value (-0.1639) which is less than the critical value of -1.96, and a p-value (0.87288) which is greater than the significance level. It can therefore be concluded that there is no significant difference between Chawngte and Lunglai EMRS from the teachers' perspectives.

4.11.2 Chawngte and Lunglai EMRS:

The perspectives of the teachers of these schools were taken in order to analyze whether there is any significant variation in their opinions. The summary of their responses is given in the table below:

Table 51: Chawngte and Lunglai EMRS: Case Summary

| Schools | Responses | | |
|----------|-----------|-----|------|
| | Yes | No | |
| Chawngte | 174 | 90 | |
| Lunglai | 616 | 132 | |
| Total | 790 | 222 | 1012 |

Source: Field Survey, 2024

As shown in the table above, Chawngte EMRS received a total of 174 positive responses and 90 negative responses. In contrast, Lunglai EMRS has 616 positive responses and 132 negative responses. Using these data, a two-proportion z-test was conducted to compare the teachers' responses from the two EMRS as outlined below:

Table 52: Chawngte and Lunglai EMRS: Two-proportion z-test

| Schools | Proportion of Positive Responses | z-statistic (2-tailed) | p-value |
|----------|----------------------------------|------------------------|---------|
| Chawngte | 0.6591 | -5.5508 | <0.001 |
| Lunglai | 0.8235 | | |
| Combined | 0.7806 | | |

Source: Own Calculation, 2024

Between the two schools, at a significance level of 0.05, we reject the null hypothesis

as indicated by the z-value (-5.5508) which is greater than the critical value of -1.96, and a p-value <0.001 which is less than the significance level. It can therefore be determined that there is a significant difference between Chawngte and Lunglei EMRS from the teachers' perspectives and Lunglei EMRS is better than Chawngte as also indicates by the proportion of 82% and 65%.

4.11.3 Chawngte and Serchhip EMRS:

These two EMRS were compared using the same indicators to capture the quality of both the schools based on teachers' viewpoints. The case summary of both the schools is given as under.

Table 53: Chawngte and Serchhip EMRS: Case Summary

| Schools | Responses | | |
|----------|-----------|-----|------|
| | Yes | No | |
| Chawngte | 174 | 90 | |
| Serchhip | 622 | 126 | |
| Total | 796 | 216 | 1012 |

Source: Field Survey, 2024

In Chawngte EMRS there are 174 positive and 90 negative responses, whereas in Serchhip EMRS there are 622 positive and 126 negative responses. Based on these responses', a two-proportion z-test was performed to compare the teachers' responses from the two EMRS.

Table 54: Chawngte and Serchhip EMRS: Two-proportion z-test

| Schools | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|--------------------------|-----------|
| Chawngte | 0.6591 | -5.8796 | <0.001 |
| Serchhip | 0.8316 | | |
| Combined | 0.7866 | | |

Source: Own Calculation, 2024

Since the calculated z-statistic (-5.8796) exceeds the critical value of ± 1.96 and the

p-value is <0.001 at 5% significance level we cannot accept the null hypothesis, which posits no significant difference in the quality of the school from the teachers' perspectives. From the proportion it can be seen that Serchhip secured 83% and Chawngte scored 65%. Consequently, it can be concluded that, there is a significant variation between the two schools according to the teachers and the quality of Serchhip EMRS is higher than that of Chawngte EMRS.

4.11.4 Chawngte and Ngopa EMRS:

These EMRSs were compared using the select 44 parameters and the result is summarized as below:

Table 55: Chawngte and Ngopa EMRS: Case Summary

| Schools | Responses | | |
|----------|-----------|-----|-----|
| | Yes | No | |
| Chawngte | 174 | 90 | |
| Ngopa | 363 | 165 | |
| Total | 537 | 255 | 792 |

Source: Field Survey, 2024

As shown in the table above, Chawngte EMRS received a total of 174 positive responses and 90 negative responses. In contrast, Ngopa EMRS had 363 positive responses and 165 negative responses. Using these data, a two- proportion z-test was conducted to compare the responses from the two EMRSas outlined below:

Table 56: Chawngte and Ngopa EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|--------------------------|-----------|
| Chawngte | 0.6591 | -0.8066 | 0.41794 |
| Ngopa | 0.6875 | | |
| Combined | 0.678 | | |

Source: Own Calculation, 2024

At a significance level of 0.05, we can accept the null hypothesis as indicated by the z-value -0.8066 which is less than the critical value of -1.96, and a p-value of 0.41794 which is greater than the significance level. It can therefore be concluded that there is an insignificant difference between Chawngte and Ngopa EMRS from the teachers' perspectives.

4.11.5 Chawngte and Tipa EMRS:

These two EMRS were compared using the same indicators to capture the quality of both the schools based on teachers' viewpoints. The case summary of both the schools is given as under:

Table 57: Chawngte and Tipa EMRS: Case Summary

| Schools | Responses | | |
|----------|-----------|-----|-----|
| | Yes | No | |
| Chawngte | 174 | 90 | |
| Tipa | 206 | 102 | |
| Total | 380 | 192 | 572 |

Source: Field Survey, 2024

Chawngte EMRS received 174 positive responses and 90 negative responses, while Tipa EMRS had 206 positive responses and 102 negative responses. To compare the responses from these two EMRS, a two-proportion z-test was conducted as outlined below:

Table 58: Chawngte and Tipa EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|-----------------------------|-----------|
| Chawngte | 0.6591 | -0.2459 | 0.80258 |
| Tipa | 0.6688 | | |
| Combined | 0.6643 | | |

Source: Own Calculation, 2024

At a significance level of 0.05, the null hypothesis is accepted as indicated by the z-value (-0.2459) which is less than the critical value of -1.96, and a p-value (0.80258)

which is greater than the significance level. It can therefore be concluded that there is no significant difference between Chawngte and Tipa EMRS from the teachers' perspectives.

4.11.6 Lunglei EMRS and Lawngtlai EMRS:

For comparing the two schools, the responses were summarized in order to apprehend the positives and negatives perspectives of the teachers with respect to the quality of their schools. And, the combined positives scores were further captured to determine the z-test value.

Table 59: Lunglei and Lawngtlai EMRS: Case Summary

| Schools | Responses | | |
|-----------|-----------|-----|------|
| | Yes | No | |
| Lunglei | 616 | 132 | |
| Lawngtlai | 205 | 103 | |
| Total | 821 | 235 | 1056 |

Source: Field Survey, 2024

In Lunglei EMRS a total of 616 positive responses and 132 negative responses of the teachers were observed. Dissimilarly, Lawngtlai EMRS had 205 positive responses and 103 negative responses. Using these data, a two-proportion z-test was conducted to compare the responses from the two EMR schools.

Table 60: Lunglei and Lawngtlai EMRS: Two-proportion z-test

| Schools | Proportion of Positive Responses | z-statistic (2 – tailed) | p – value |
|-----------|----------------------------------|--------------------------|-----------|
| Lunglei | 0.8235 | 6.6087 | <0.001 |
| Lawngtlai | 0.6656 | | |
| Combined | 0.7775 | | |

Source: Own Calculation, 2024

Since the calculated z-statistic (6.6087) surpasses the critical value of ± 1.96 and the p-value is <0.001 at 5% significance level we reject the null hypothesis, which posits

no significant difference in the quality of the schools from the teachers' perspectives. From the proportion it can be seen that Lunglei secured 82% and Lawngtlai scored 66%. Consequently, it can be concluded that, there is a significant difference between the two schools according to the teachers and the quality of Lunglei EMRS is higher than that of Lawngtlai EMRS.

4.11.7 Lunglei EMRS and Serchhip EMRS:

For comparing the two schools, the responses were summarized in order to apprehend the positives and negatives perspectives of the teachers with respect to the quality of their teaching and the curriculum. And, the combined positives scores were further captured to determine the z-test value.

Table 61: Lunglei and Serchhip EMRS: Case Summary

| Schools | Responses | | |
|--------------|-----------|-----|------|
| | Yes | No | |
| Lunglei | 616 | 132 | |
| Serchhip | 622 | 126 | |
| Total | 1238 | 258 | 1496 |

Source: Field Survey, 2024

In Lunglei EMRS, there were 616 positive responses and 132 negative responses from the teachers. Conversely, Serchhip EMRS has 622 positive responses and 126 negative responses. Using these data, a two-proportion z-test was conducted to compare the responses from the two EMR schools.

Table 62: Lunglei and Serchhip EMRS: Two-proportion z-test

| Schools | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|-----------------------------|-----------|
| Lunglei | 0.8235 | -0.4106 | 0.6818 |
| Serchhip | 0.8316 | | |
| Combined | 0.8275 | | |

Source: Own Calculation, 2024

At a significance level of 0.05, we can admit the null hypothesis as indicated by the

z-value -0.4106 which is less than the critical value of -1.96, and a p-value of 0.6818 which is greater than the significance level. It can therefore be concluded that there is an insignificant difference between the EMRS from the teachers' perspectives.

4.11.8 Lunglei EMRS and Ngopa EMRS:

The case summary of Lunglei and Serchhip EMRS based on the various parameters utilized for the comparative analysis is given below:

Table 63: Lunglei and Ngopa EMRS: Case Summary

| Schools | Responses | | |
|---------|-----------|-----|------|
| | Yes | No | |
| Lunglei | 616 | 132 | |
| Ngopa | 363 | 165 | |
| Total | 979 | 297 | 1276 |

Source: Field Survey, 2024

As seen in the table above, the total number of positive responses from Lunglei EMRS is 616 with 132 negative responses whereas it was observed that there are 363 positive and 165 negative responses in Ngopa EMRS. Taking these responses, the two EMRS were compared as below:

Table 64: Lunglei and Ngopa EMRS: Two-proportion z-test

| Schools | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|--------------------------|-----------|
| Lunglei | 0.8235 | 5.6631 | <0.001 |
| Ngopa | 0.6875 | | |
| Combined | 0.7672 | | |

Source: Own Calculation, 2024

Since the calculated z-statistic (5.6631) surpasses the critical value of ± 1.96 and the p-value is <0.001 at 5% significance level we reject the null hypothesis, which stated that there is no significant difference in the schools from the teachers' perspectives. From the proportion it can be seen that Lunglei secured 82% and Ngopa recorded 68%. Consequently, it can be concluded that, there is a significant difference between

the two schools based on the opinions of the teachers and Lunglei EMRS exceeds Ngopa EMRS.

4.11.9 Lunglei EMRS and Tipa EMRS:

The case summary of Lunglei and Tipa EMRS based on the various parameters utilized for the comparative analysis is given below.

Table 65: Lunglei and Tipa EMRS: Case Summary

| Schools | Responses | | |
|---------|-----------|-----|------|
| | Yes | No | |
| Lunglei | 616 | 132 | |
| Tipa | 206 | 102 | |
| Total | 822 | 234 | 1056 |

Source: Field Survey, 2024

The total number of positive responses from Lunglei EMRS is 616 with 132 negative responses whereas there are 206 positive and 102 negative responses in Tipa EMRS. Taking these responses, the two EMRS were compared as below.

Table 66: Lunglei and Tipa EMRS: Two-proportion z-test

| Schools | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|-----------------------------|-----------|
| Lunglei | 0.8235 | 5.5017 | <0.001 |
| Tipa | 0.6688 | | |
| Combined | 0.7784 | | |

Source: Own Calculation, 2024

We reject the null hypothesis, which stated that there is no significant difference in the schools from the teachers' perspectives since the calculated z-statistic (5.5017) is greater than the critical value of ± 1.96 and the p-value is < 0.001 at 5% significance level. From the proportion it can be seen that Lunglei secured 82% and Tipa notched 66%. Accordingly, it can be concluded that, there is a significant difference between the two schools based on the views of the teachers and Lunglei EMRS fare better than Tipa EMRS.

4.11.10 Serchhip EMRS and Lawngtlai EMRS:

The case summary of Serchhip and Lawngtlai EMRS, based on various parameters used for the comparative analysis, is provided below:

Table 67: Serchhip and Lawngtlai EMRS: Case Summary

| Schools | Responses | | |
|-----------|-----------|-----|------|
| | Yes | No | |
| Serchhip | 622 | 126 | |
| Lawngtlai | 205 | 103 | |
| Total | 827 | 229 | 1056 |

Source: Field Survey, 2024

Serchhip EMRS has 622 positive responses and 126 negative responses while there are 205 positive and 103 negative responses from Lawngtlai EMRS. Using these data, a two-proportion z-test was conducted to compare the responses from the two EMRS.

Table 68: Serchhip and Lawngtlai EMRS: Two-proportion z-test

| Schools | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|-----------|----------------------------------|--------------------------|-----------|
| Serchhip | 0.8316 | 5.9485 | <0.001 |
| Lawngtlai | 0.6656 | | |
| Combined | 0.7831 | | |

Source: Own Calculation, 2024

The calculated z-score between these schools is 5.9485, with a p-value of <0.001. These results allow us to reject the null hypothesis and conclude that Serchhip EMRS performs better than Lawngtlai EMRS. The significant variation between them is also evident from their proportions.

4.11.11 Serchhip EMRS and Ngopa EMRS:

The case summary of Serchhip and Ngopa EMRS, based on various parameters used for the comparative analysis, is provided below:

Table 69: Serchhip and Ngopa EMRS: Case Summary

| Schools | Responses | | |
|----------|-----------|-----|------|
| | Yes | No | |
| Serchhip | 622 | 126 | |
| Ngopa | 363 | 165 | |
| Total | 985 | 291 | 1276 |

Source: Field Survey, 2024

In Serchhip EMRS, 622 positive responses and 126 negative responses were observed while 363 positive and 165 negative responses were recorded from Ngopa EMRS. Using these data, a two-proportion z-test was conducted to compare the responses from the two EMRS.

Table 70: Serchhip and Ngopa EMRS: Two-proportion z-test

| Schools | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|-----------------------------|-----------|
| Serchhip | 0.8316 | 6.0401 | <0.001 |
| Ngopa | 0.6875 | | |
| Combined | 0.7719 | | |

Source: Own Calculation, 2024

We reject the null hypothesis, which stated that there is no significant difference in the schools from the teachers' perspectives since the calculated z-statistic (6.0401) is greater than the critical value of ± 1.96 and the p-value is < 0.001 at 5% significance level. From the proportion it can be seen that Serchhip secured 83% and Ngopa is 68%. Accordingly, it can be concluded that, there is a significant variation between the two schools based on the views of the teachers and Serchhip EMRS performs better than Ngopa EMRS.

4.11.12 Serchhip EMRS and Tipa EMRS:

The case summary of Serchhip and Tipa EMRS, based on various parameters used for the comparative analysis, is provided below:

Table 71: Serchhip and Tipa EMRS: Case Summary

| Schools | Responses | | |
|----------|-----------|-----|------|
| | Yes | No | |
| Serchhip | 622 | 126 | |
| Tipa | 206 | 102 | |
| Total | 828 | 228 | 1056 |

Source: Field Survey, 2024

In Serchhip EMRS, we have 622 positive responses and 126 negative responses while 206 positive and 102 negative responses were received from Tipa EMRS. A two-proportion z-test was done to compare the responses from these EMRS.

Table 72: Serchhip and Tipa EMRS: Two-proportion z-test

| Schools | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|-----------------------------|-----------|
| Serchhip | 0.8316 | 5.8414 | <0.001 |
| Tipa | 0.6688 | | |
| Combined | 0.7841 | | |

Source: Own Calculation, 2024

Since the calculated z-statistic (5.8414) surpasses the critical value of ± 1.96 and the p-value is < 0.001 at 5% significance level we reject the null hypothesis, which stated that there is no significant difference in the quality of the schools from the teachers' perspectives. From the proportion it can be seen that Serchhip secured 83% and Tipa scored 66%. Accordingly, it can be concluded that, there is a significant difference between the two schools from the viewpoints of the teachers and the quality of Serchhip EMRS is much better than Tipa EMRS.

4.11.13 Ngopa EMRS and Lawngtlai EMRS:

The case summary of the EMRS, based on various parameters used for the comparative analysis, is provided below:

Table 73: Ngopa and Lawngtlai EMRS: Case Summary

| Schools | Responses | | |
|-----------|-----------|-----|-----|
| | Yes | No | |
| Ngopa | 363 | 165 | |
| Lawngtlai | 205 | 103 | |
| Total | 568 | 268 | 836 |

Source: Field Survey, 2024

In Ngopa EMRS, 363 positive responses and 165 negative responses were obtained while 205 positive and 103 negative responses were received from Lawngtlai EMRS. A two-proportion z-test was done to compare the responses from these EMRS.

Table 74: Ngopa and Lawngtlai EMRS: Two-proportion z-test

| Schools | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|-----------|----------------------------------|-----------------------------|-----------|
| Ngopa | 0.6875 | 0.6549 | 0.5157 |
| Lawngtlai | 0.6656 | | |
| Combined | 0.6794 | | |

Source: Own Calculation, 2024

Since the calculated z-statistic (0.6549) less than the critical value of ± 1.96 and the p-value is 0.5157 at 5% significance level we accept the null hypothesis, which stated that there is no significant difference in the quality of the schools from the teachers' perspectives. From the proportion it can be seen that Ngopa secured 68% and Lawngtlai scored 66%. Accordingly, it can be concluded that, there is an insignificant difference between the two schools from the viewpoints of the teachers.

4.11.14 Ngopa EMRS and Tipa EMRS:

The case summary of the EMRS, based on various parameters used for the comparative analysis, is provided below:

Table 75: Ngopa and Tipa EMRS: Case Summary

| School | Responses | | |
|--------|-----------|-----|-----|
| | Yes | No | |
| Ngopa | 363 | 165 | |
| Tipa | 206 | 102 | |
| Total | 569 | 267 | 836 |

Source: Field Survey, 2024

In Ngopa EMRS, 363 positive responses and 165 negative responses were obtained while 206 positive and 102 negative responses were received from Tipa EMRS. A two-proportion z-test was done to compare the responses from these EMRS.

Table 76: Ngopa and Tipa EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|-----------------------------|-----------|
| Ngopa | 0.6875 | 0.5585 | 0.57548 |
| Tipa | 0.6688 | | |
| Combined | 0.6806 | | |

Source: Own Calculation, 2024

Since the calculated z-statistic (0.5585) is less than the critical value of ± 1.96 and the p-value 0.57548 is greater than the significance level of 0.05, we accept the null hypothesis. From the proportion it can also be seen that Ngopa secured 68% and Tipa scored 66%. Accordingly, it can be concluded that, there is an insignificant difference between the two schools from the opinions of the teachers.

4.11.15 Lawngtlai EMRS and Tipa EMRS:

The case summary of Lawngtlai and Tipa EMRS, based on various parameters used for the comparative analysis, is provided below:

Table 77: Lawngtlai and Tipa EMRS: Case Summary

| School | Responses | | |
|--------------|-----------|-----|-----|
| | Yes | No | |
| Lawngtlai | 205 | 102 | |
| Tipa | 206 | 103 | |
| Total | 411 | 205 | 616 |

Source: Field Survey, 2024

Lawngtlai EMRS has 205 positive responses and 102 negative responses while there are 206 positive and 103 negative responses from Tipa EMRS. Using these data, a two-proportion z-test was conducted to compare the responses from the two EMRS.

Table 78: Lawngtlai and Tipa EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|-----------|----------------------------------|-----------------------------|-----------|
| Lawngtlai | 0.6656 | -0.0855 | 0.92828 |
| Tipa | 0.6688 | | |
| Combined | 0.6672 | | |

Source: Own Calculation, 2024

At a significance level of 0.05, we can admit the null hypothesis as indicated by the z- value -0.0855 which is less than the critical value of -1.96, and a p-value of 0.92828 which is greater than the significance level. It can therefore be concluded that there is an insignificant difference between the EMRS from the teachers' perspectives.

4.11.16 Overall Ranking of the EMRS from the Teachers' Perspectives:

The overall ranking of the six EMRS from the perspectives of the teachers is given below:

Table 79: Overall Ranking: Teachers' Perspectives

| Schools | Front-runner |
|-----------------------|---------------------|
| Tipa vs Chawngte | Nil |
| Tipa vs Serchhip | Serchhip |
| Tipa vs Lunglei | Lunglei |
| Tipa vs Ngopa | Nil |
| Tipa vs Lawngtlai | Nil |
| Chawngte vs Serchhip | Serchhip |
| Chawngte vs Lunglei | Lunglei |
| Chawngte vs Ngopa | Nil |
| Chawngte vs Lawngtlai | Nil |
| Serchhip vs Lunglei | Nil |
| Serchhip vs Ngopa | Serchhip |
| Serchhip vs Lawngtlai | Serchhip |
| Lunglei vs Ngopa | Lunglei |
| Lunglei vs Lawngtlai | Lunglei |
| Ngopa vs Lawngtlai | Nil |

Source: Field Survey, 2024

The 'nil in the above table denotes the insignificant differences between the paired schools. Hence, from the teachers' perspectives, Lunglei EMRS and Serchhip EMRS are the best schools among the six EMRS.

4.12 Infrastructure of the Schools: A Comparative Analysis:

School infrastructure encompasses a range of resources and amenities designed to enhance students' learning experiences. This includes academic facilities like smart classrooms, libraries, study halls, laboratories, and exam halls, as well as recreational facilities such as playgrounds and sports courts. In Indian boarding schools, essential infrastructure includes dormitories, dining halls, washrooms, bathrooms, and medical facilities. Residential schools in India prioritize offering a secure and supportive

environment, with watchmen and wardens ensuring protection from external intrusions and internal conflicts. Proper sanitation, clean drinking water, and available medical facilities reassure parents that their children's health will not be compromised. Additional resources, such as staff rooms and transportation facilities, are also essential for fostering a comfortable residential environment for students.

A well-developed school infrastructure significantly contributes to creating a conducive learning environment, improving the overall quality of schools, and positively impacting the educational experience. This, in turn, leads to better educational outcomes. Quality infrastructure helps build a homely atmosphere for students, providing them with a sense of security and comfort akin to their homes. Parents can feel confident knowing that their children receive all the necessary facilities they would have at home. Overall, decent infrastructure fosters a positive learning environment by ensuring students' safety, security, and comfort.

The EMRS were compared based on 35 parameters to capture the infrastructural facilities of each school. Given the categorical nature of the data (classified as "good," "manageable," "poor," and "not available") and the non-normal distribution of responses, non-parametric statistical methods were selected. The Kruskal-Wallis test was initially employed to determine if there exists a statistically significant difference in infrastructure perceptions among the schools. This omnibus test assesses whether the medians of the ranked data differ significantly across groups. Upon finding a significant result from the Kruskal-Wallis test, indicating variability among at least some of the schools, subsequent pairwise comparisons using the Mann-Whitney U test was conducted. The Mann-Whitney U test identified specific pairs of schools where the differences in infrastructure perceptions are statistically significant.

The categorical data were first transformed into numerical value for analysis as below:

Good = 4, Manageable = 3, Poor = 2, Not available = 1

4.12.1 Reliability Test: Cronbach’s Alpha Test:

Cronbach’s Alpha test is performed to test the internal consistency of the scale assigned to the ordinal value.

Table 80: Reliability Test

| Cronbach's Alpha | N of Items |
|------------------|------------|
| 0.904 | 35 |

Source: Own Calculation, 2024

0.904 falls within the range of $\alpha \geq 0.9$. This indicates that the questions for infrastructure are highly correlated with each other and are consistently measuring the same underlying construct, i.e., the quality of school infrastructure.

4.12.2 Kruskal – Wallis Test:

As stated above, Kruskal-Wallis test was employed to determine if there exists a statistically significant difference in infrastructure perceptions among the six schools. This omnibus test assesses whether the medians of the ranked data differ significantly across groups. To obtain the mean rank of the schools the following table was formed using Kruskal-Wallis test as under.

Table 81: Schools Rank in Infrastructure

| | Schools | N | Mean Rank |
|-------------|-----------|-----|-----------|
| Rank scores | Tipa | 35 | 101.76 |
| | Chawngte | 35 | 143.20 |
| | Serchhip | 35 | 75.97 |
| | Lunglei | 35 | 126.36 |
| | Ngopa | 35 | 119.19 |
| | Lawngtlai | 35 | 66.53 |
| | Total | 210 | |

Source: Own Calculation, 2024

The mean rank is the average of the ranks of all the six schools which was utilized to

determine the Kruskal- Wallis (H) value. As seen in the above table, Chawngte secured the highest mean rank with 143.20 and the lowest is Lawngtlai EMRS with a mean rank of 66.53.

Table 82: Schools Rank: Test Statistics

| | Rank scores |
|-------------------------------|--------------------|
| Kruskal-Wallis (H) | 50.395 |
| Degree of Freedom (df) | 5 |
| Asymptotic. Sig. | <.001 |

Source: Own Calculation, 2024

For $\alpha = 0.05$ and $df = 5$, the critical value from the chi-square is approximately

11.07. Since, $H(5) = 50.395$, i.e., greater than the critical value, there is significant evidence against the null hypothesis which stated that there is no variation amongst the schools in terms of their infrastructures. It can therefore be determined that there are statistically significant differences in the quality of infrastructure across the 6 schools under study during the study period.

4.12.3 Post-hoc Analysis: Mann-Whitney U Test:

Since Kruskal-Wallis Test above indicates a significant difference in quality of infrastructures across the 6 schools, a pairwise comparisons using Mann-Whitney U test was undertaken to identify which schools differs significantly from each other and which schools are having an insignificant difference during the study period. Normal approximation method i.e., z-value is employed as a basis for rejecting or accepting the null hypothesis. The sections below presented the comparative analysis of the 6 ERMS in terms of their quality of infrastructures.

4.12.4 Tipa and Chawngte EMRS:

The infrastructures of these schools were compared based on 35 parameters and their mean rank is presented below:

Table 83: Tipa and Chawngte EMRS Ranks

| | Schools | N | Mean Rank | Sum of Ranks |
|--------------------|----------|----|-----------|--------------|
| Rank scores | Tipa | 35 | 29.34 | 1027.00 |
| | Chawngte | 35 | 41.66 | 1458.00 |
| | Total | 70 | | |

Source: Own Calculation, 2024

The mean rank is obtained by assigning values to the parameters which was listed in ascending order to get the average rank of the schools. Tipa's mean rank is 29.34 and Chawngte mean rank is 41.66. The higher mean rank indicates higher quality of infrastructures but whether this difference is significant or insignificant to accept or reject the null hypothesis, a test was conducted as below:

Table 84: Tipa and Chawngte EMRS Rank Scores

| | |
|-------------------------------|---------|
| Mann-Whitney U | 397.000 |
| z-test | -3.244 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

To evaluate the difference between the quality of infrastructures between Tipa EMRS and Chawngte EMRS, Mann-Whitney U test was utilized. The test revealed significant differences in the quality of infrastructures between Tipa EMRS and Chawngte EMRS as indicated by U value of 397, z-score of -3.244 which is greater than the critical value of ± 1.96 and $p = < 0.001$ which is less than the significance level of 0.05. We therefore reject the null hypothesis and concluded that Chawngte EMRS has better infrastructural facilities than Tipa EMRS.

4.12.5 Tipa and Serchhip EMRS:

These schools rank in terms of their infrastructural facilities based on the select indicators are given below:

Table 85: Tipa and Serchhip Ranks

| | Schools | N | Mean Rank | Sum of Ranks |
|-------------|----------|----|-----------|--------------|
| Rank scores | Tipa | 35 | 39.06 | 1367.00 |
| | Serchhip | 35 | 31.94 | 1118.00 |
| | Total | 70 | | |

Source: Own Calculation, 2024

Tipa's mean rank is 39.06 and Serchhip mean rank is 31.94, it can be observed that there is a difference between the two schools but whether this difference is significant or insignificant to accept or reject the null hypothesis, a test was carried out as below:

Table 86: Tipa and Serchhip EMRS Rank Scores

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 488.000 |
| Z | -1.533 |
| Asymp. Sig. (2-tailed) | 0.125 |

Source: Own Calculation, 2024

To evaluate the difference between the quality of infrastructures between the two EMRS, Mann-Whitney U test was utilized. The test revealed significant differences in the quality of infrastructures between Tipa EMRS and Serchhip EMRS as indicated by U value of 488, z-score of -1.533 which is less than the critical value of ± 1.96 and p-value of 0.125 which is greater than the significance level of 0.05. We therefore accept the null hypothesis and concluded that there is no significant difference between Tipa EMRS and Serchhip EMRS in terms of their infrastructures.

4.12.6 Tipa and Lunglei EMRS:

Tipa and Lunglei EMRS were compared in terms of their infrastructural amenities to obtain their mean rank as below:

Table 87: Tipa and Lunglei Ranks

| | Schools | N | Mean Rank | Sum of Ranks |
|-------------|---------|----|-----------|--------------|
| Rank scores | Tipa | 35 | 31.81 | 1113.50 |
| | Lunglei | 35 | 39.19 | 1371.50 |
| | Total | 70 | | |

Source: Own Calculation, 2024

Tipa's mean rank is 31.81, while Lunglei's mean rank is 39.19. Although there is an observable difference between the two schools, a test was conducted to determine whether this difference is significant or insignificant enough to accept or reject the null hypothesis, as detailed below:

Table 88: Tipa and Lunglei EMRS Rank Scores

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 483.500 |
| Z | -1.757 |
| Asymp. Sig. (2-tailed) | 0.079 |

Source: Own Calculation, 2024

The test revealed significant differences in the quality of infrastructures between Tipa EMRS and Lunglei EMRS as indicated by the u value of 483, z-score of -1.757 which is less than the critical value of ± 1.96 and p-value of 0.079 which is greater than the significance level of 0.05. The null hypothesis is supported that there is an insignificant difference in the quality of infrastructure between Tipa EMRS and Lunglei EMRS.

4.12.7 Tipa and Ngopa EMRS:

A pairwise comparison of Tipa and Ngopa EMRS on infrastructures to obtain their mean ranks is as under:

Table 89: Tipa and Ngopa Ranks

| | Schools | N | Mean Rank | Sum of Ranks |
|-------------|---------|----|-----------|--------------|
| Rank scores | Tipa | 35 | 33.01 | 1155.50 |
| | Ngopa | 35 | 37.99 | 1329.50 |
| | Total | 70 | | |

Source: Own Calculation, 2024

It can be seen that Ngopa EMRS mean rank is 37.99 while Tipa EMRS has a mean rank of 33.01. Though there is a difference in their mean ranks, whether this difference is significant or insignificant to accept or reject the null hypothesis, the following analysis was carried out.

Table 90: Tipa and Ngopa EMRS Rank Scores

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 525.500 |
| Z | -1.147 |
| Asymp. Sig. (2-tailed) | 0.251 |

Source: Own Calculation, 2024

As indicated by the U value of 525, z-score of -1.147 which is less than the critical value of ± 1.96 and p-value of 0.251 which is greater than the significance level of 0.05. The null hypothesis is accepted that there is an insignificant difference in the quality of infrastructure between Tipa EMRS and Ngopa EMRS.

4.12.8 Tipa and Lawngtlai EMRS:

The mean rank calculated from their sum of ranks of Tipa and Lawngtlai EMRS is presented in table below.

Table 91: Tipa and Lawngtlai EMRS Ranks

| | Schools | N | Mean Rank | Sum of Ranks |
|-------------|-----------|----|-----------|--------------|
| Rank scores | Tipa | 35 | 40.53 | 1418.50 |
| | Lawngtlai | 35 | 30.47 | 1066.50 |
| | Total | 70 | | |

Source: Own Calculation, 2024

It can be seen that Tipa EMRS has better infrastructural facilities with a mean rank of 40.53 while Lawngtlai EMRS has a lower mean rank of 30.47. While there is an observable difference between the two schools, a test was undertaken to see whether this difference is significant or insignificant to accept or reject the null hypothesis, as given below:

Table 92: Tipa and Lawngtlai EMRS Rank Scores

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 436.500 |
| Z | -2.157 |
| Asymp. Sig. (2-tailed) | 0.031 |

Source: Own Calculation, 2024

As indicated by the U value of 436, z-score of -2.157 which is greater than the critical value of ± 1.96 and p-value of 0.031 which is less than the significance level of 0.05, the null hypothesis is rejected. It can be determined that there is significant difference in the quality of infrastructure and Tipa EMRS has better infrastructural amenities than Lawngtlai EMRS.

4.12.9 Chawngte and Serchhip EMRS:

The mean rank calculated from their sum of ranks of the two EMRS is given below. The N value indicates the total number of parameters utilized for the comparison.

Table 93: Chawngte EMRS and Serchhip EMRS Ranks

| | Schools | N | Mean Rank | Sum of Ranks |
|-------------|----------|----|-----------|--------------|
| Rank scores | Chawngte | 35 | 46.47 | 1626.50 |
| | Serchhip | 35 | 24.53 | 858.50 |
| | Total | 70 | | |

Source: Own Calculation, 2024

It can be seen that Chawngte EMRS has better infrastructural amenities with a mean rank of 46.47 while Serchhip EMRS has a lower mean rank of 24.53. Although there is an observable difference between the two schools, a test was conducted to determine whether this difference is significant or insignificant enough to accept or reject the null hypothesis, as detailed below.

Table 94: Chawngte and Serchhip EMRS Rank Scores

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 228.500 |
| Z | -5.037 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

Normal approximation method i.e., z-value is employed as a basis for rejecting or accepting the null hypothesis and as indicated by the U value of 228, z-score of -5.037 which is greater than the critical value of ± 1.96 and p-value of <.001 which is less than the significance level of 0.05, the null hypothesis cannot be accepted. It can be resolved that there is a significant difference in the quality of infrastructure and Chawngte EMRS has better infrastructural amenities than Serchhip EMRS.

4.12.10 Chawngte and Lunglei EMRS:

The mean rank calculated from their sum of ranks of the two EMRS is given below. The N value indicates the total number of parameters utilized for the comparison.

Table 95: Chawngte and Lunglei EMRS Ranks

| | Schools | N | Mean Rank | Sum of Ranks |
|-------------|----------|----|-----------|--------------|
| Rank scores | Chawngte | 35 | 38.66 | 1353.00 |
| | Lunglei | 35 | 32.34 | 1132.00 |
| | Total | 70 | | |

Source: Own Calculation, 2024

Since the higher mean rank indicates a higher quality in terms of infrastructure, it can be seen that Chawngte EMRS has better infrastructural facilities with a mean rank of 38.66 than Lunglei EMRS with a mean rank of 32.34. Nonetheless, whether this difference is significant or insignificant to accept or reject the null hypothesis, the following analysis was carried out.

Table 96: Chawngte and Lunglei EMRS Rank Scores

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 502.000 |
| Z | -1.915 |
| Asymp. Sig. (2-tailed) | 0.055 |

Source: Own Calculation, 2024

As indicated by the U value of 502, z-score of -1.915 which is less than the critical value of ± 1.96 and p-value of 0.055 which is greater than the significance level of 0.05, the null hypothesis is accepted that there is an insignificant difference in the quality of infrastructure between Chawngte and Lunglei EMRS.

4.12.11 Chawngte and Ngopa EMRS:

The mean rank calculated from their sum of ranks of Tipa and Lawngtlai EMRS is presented in table below:

Table 97: Chawngte EMRS and Ngopa EMRS Ranks

| | Schools | N | Mean Rank | Sum of Ranks |
|-------------|----------|----|-----------|--------------|
| Rank scores | Chawngte | 35 | 40.49 | 1417.00 |
| | Ngopa | 35 | 30.51 | 1068.00 |
| | Total | 70 | | |

Source: Own Calculation, 2024

With a mean rank of 40.40 Chawngte EMRS has better infrastructural facilities as compared to Ngopa EMRS with a mean rank of 30.51. Although there is a noticeable difference between the two schools, a test was carried out to resolve whether this difference is significant or insignificant enough to accept or reject the null hypothesis, as detailed below:

Table 98: Chawngte and Ngopa EMRS Rank Scores

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 438.000 |
| Z | -2.737 |
| Asymp. Sig. (2-tailed) | 0.006 |

Source: Own Calculation, 2024

As indicated by the U value of 438, z-score of -2.737 which is greater than the critical value of ± 1.96 and p-value of 0.006 which is less than the significance level of 0.05, the null hypothesis cannot be accepted. It can be determined that there is a significant difference in the quality of infrastructure and Chawngte EMRS has better infrastructural amenities than Ngopa EMRS.

4.12.12 Chawngte and Lawngtlai EMRS:

The N value indicates the total number of parameters utilized for the comparison and their mean rank calculated from their sum of ranks of the two EMRS is given below:

Table 99: Chawngte and Lawngtlai EMRS Ranks

| | Schools | N | Mean Rank | Sum of Ranks |
|-------------|-----------|----|-----------|--------------|
| Rank scores | Chawngte | 35 | 47.93 | 1677.50 |
| | Lawngtlai | 35 | 23.07 | 807.50 |
| | Total | 70 | | |

Source: Own Calculation, 2024

Since the higher mean rank indicates a higher quality in terms of infrastructure, it can be seen that Chawngte EMRS has better infrastructural facilities with a mean rank of 47.93 than Lawngtlai EMRS with a mean rank of 23.07. Nonetheless, a test was conducted to determine whether this difference is significant or insignificant to accept or reject the null hypothesis, as detailed below:

Table 100: Chawngte and Lawngtlai EMRS Rank Scores

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 177.500 |
| Z | -5.585 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

As indicated by the U value of 177, z-score of -5.585 which is greater than the critical value of ± 1.96 and p-value of $< .001$ which is less than the significance level of 0.05, the null hypothesis cannot be accepted. The test statistics shows that there is a significant difference in the quality of infrastructure between Chawngte and Lunglei EMRS, which can also be observed by their mean rank presented in table above.

4.12.13 Serchhip and Lunglei EMRS:

The mean rank calculated from the sum of ranks of the two EMRS is given below. The N value indicates the total number of parameters utilized for the comparison.

Table 101: Serchhip and Lunglei EMRS Ranks

| | Schools | N | Mean Rank | Sum of Ranks |
|-------------|----------|----|-----------|--------------|
| Rank scores | Serchhip | 35 | 26.89 | 941.00 |
| | Lunglei | 35 | 44.11 | 1544.00 |
| | Total | 70 | | |

Source: Own Calculation, 2024

It can be seen that Lunglei EMRS has better infrastructural amenities with a mean rank of 44.11 while Serchhip EMRS has a lower mean rank of 26.89. However, a test was conducted to determine whether this difference is significant or insignificant to accept or reject the null hypothesis as presented in the table below:

Table 102: Serchhip and Lunglei EMRS Rank Scores

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 311.000 |
| Z | -3.804 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

Normal approximation method i.e., z-value is employed as a basis for rejecting or accepting the null hypothesis and as indicated by the U value of 311. z-score of -3.804 which is greater than the critical value of ± 1.96 and p-value of

<.001 which is less than the significance level of 0.05, the null hypothesis cannot be accepted. It can be resolved that there is a significant difference in the quality of infrastructure and Lunglei EMRS has better infrastructural amenities than Serchhip EMRS.

4.12.14 Serchhip and Ngopa EMRS:

The mean ranks of Serchhip and Ngopa EMRS in terms of infrastructure is presented in table below:

Table 103: Serchhip and Ngopa EMRS Ranks

| | Schools | N | MeanRank | Sum ofRanks |
|-------------|----------|----|----------|-------------|
| Rank scores | Serchhip | 35 | 27.46 | 961.00 |
| | Ngopa | 35 | 43.54 | 1524.00 |
| | Total | 70 | | |

Source: Own Calculation, 2024

From the sum of ranks of both the schools, their mean ranks were derived and Ngopa EMRS with a mean rank of 43.54 has better infrastructural facilities than Serchhip EMRS which has a lesser mean rank of 27.46. Although there is a noticeable difference between the two schools, a test was carried out to resolve whether this difference is significant or insignificant enough to accept or reject the null hypothesis, as detailed below:

Table 104: Serchhip and Ngopa EMRS Rank Scores

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 331.000 |
| Z | -3.536 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

As indicated by the U value of 331 and the z-score of -3.536 which is greater than the critical value of ± 1.96 and p-value of $<.001$ which is less than the significance level of 0.05, the null hypothesis is rejected. It can be determined that there is a significant difference in the quality of infrastructure and Ngopa EMRS has better infrastructural amenities than Serchhip EMRS.

4.12.15 Serchhip and Lawngtlai EMRS:

The mean rank calculated from their sum of ranks of the two EMRS is given below. The N value indicates the total number of parameters utilized for the comparison.

Table 105: Serchhip and Lawngtlai EMRS Ranks

| | Schools | N | MeanRank | Sum ofRanks |
|-------------|-----------|----|----------|-------------|
| Rank scores | Serchhip | 35 | 37.16 | 1300.50 |
| | Lawngtlai | 35 | 33.84 | 1184.50 |
| | Total | 70 | | |

Source: Own Calculation, 2024

It can be seen that Serchhip EMRS has mean rank of 37.16 and Lawngtlai EMRS has a mean rank of 33.84, this mean rank shows that there is a difference in the two EMRS in terms of their infrastructural facilities but whether this difference is significant or insignificant to support or reject the null hypothesis captured by the analysis below:

Table 106: Serchhip and Lawngtlai EMRS Rank Scores

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 554.500 |
| Z | -0.721 |
| Asymp. Sig. (2-tailed) | 0.471 |

Source: Own Calculation, 2024

As indicated by the U value of 554 and the z-score of -0.721 which is less than the critical value of ± 1.96 and p-value of 0.471 which is greater than the significance level of 0.05, the null hypothesis is accepted that there is an insignificant difference in the quality of infrastructure between Chawngte and Lunglei EMRS.

4.12.16 Lunglei and Ngopa EMRS:

The mean rank calculated from their sum of ranks of the two EMRS is given below. The N value indicates the total number of parameters utilized for the comparison.

Table 107: Lunglei and Ngopa EMRS Ranks

| | Schools | N | Mean Rank | Sum of Ranks |
|------------|---------|----|-----------|--------------|
| Rankscores | Lunglei | 35 | 37.04 | 1296.50 |
| | Ngopa | 35 | 33.96 | 1188.50 |
| | Total | 70 | | |

Source: Own Calculation, 2024

The mean rank for Lunglei is 37.04, while for Ngopa EMRS it is 33.96. This indicates a difference in infrastructural facilities between the two EMRS. To determine whether this difference is significant enough to support or reject the null hypothesis, further testing is required, as detailed below:

Table 108: Lunglei and Ngopa EMRS Rank Scores

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 558.500 |
| Z | -0.759 |
| Asymp. Sig. (2-tailed) | 0.448 |

Source: Own Calculation, 2024

With U value of 558 and a z-score of -0.759, which is less than the critical value of ± 1.96 , and the p-value of 0.448, which is greater than the significance level of 0.05, indicate that the null hypothesis is accepted. This shows that there is no significant difference in the quality of infrastructure between Lunglei and Ngopa EMRS.

4.12.17 Lunglei and Lawngtlai EMRS:

Lunglei and Lawngtlai EMRS mean ranks by comparing their infrastructures is presented in table below:

Table 109: Lunglei and Lawngtlai EMRS Ranks

| | Schools | N | MeanRank | Sum ofRanks |
|-------------|-----------|----|----------|-------------|
| Rank scores | Lunglei | 35 | 45.67 | 1598.50 |
| | Lawngtlai | 35 | 25.33 | 886.50 |
| | Total | 70 | | |

Source: Own Calculation, 2024

From the sum of ranks of both the schools, their mean ranks were derived and Lunglei EMRS with a mean rank of 45.67 has better infrastructural facilities than Lanwgtlai EMRS which has a lesser mean rank of 25.33. In order to determine whether there exist a significant or insignificant difference to acceptor reject the null hypothesis the following test was conducted.

Table 110: Lunglei and Lawngtlai EMRS Rank Scores

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 256.500 |
| Z | -4.444 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

As indicated by the U value of 256 with a z-score of -4.444 which is greater than the critical value of ± 1.96 and p-value of $<.001$ which is less than the significance level of 0.05, the null hypothesis is rejected. It can be determined that there is a significant difference in the quality of infrastructure and LungleiEMRS has better infrastructural amenities than Lawngtlai EMRS.

4.12.18 Ngopa and Lawngtlai EMRS:

The mean rank calculated from their sum of ranks of Ngopa and Lawngtlai EMRS is presented in table below:

Table 111: Ngopa and Lawngtlai EMRS Ranks

| | Schools | N | MeanRank | Sum ofRanks |
|-------------|-----------|----|----------|-------------|
| Rank scores | Ngopa | 35 | 45.19 | 1581.50 |
| | Lawngtlai | 35 | 25.81 | 903.50 |
| | Total | 70 | | |

Source: Own Calculation, 2024

It can be observed that with a mean rank of 45.19, Ngopa EMRS has better infrastructural facilities as compared to Lawngtlai EMRS whose mean rank is 25.81. Nonetheless, whether this difference is significant enough to accept or reject the null hypothesis, the following test was conducted.

Table 112: Ngopa and Lawngtlai EMRS Rank Scores

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 273.500 |
| Z | -4.240 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

With the U value of 273 and the z-score of -4.240, which is greater than the critical value of ± 1.96 , and the p-value of < 0.001 , which is less than the significance level of 0.05, indicate that the null hypothesis cannot be accepted. This demonstrates that there is a significant difference in the quality of infrastructure, with Ngopa EMRS having better infrastructural amenities than Lawngtlai EMRS.

4.12.19 Overall Ranking of the Schools in Infrastructure:

The infrastructures of the schools were compared by utilizing 35 parameters which are related to the schools' buildings, campus, classrooms, recreational center, indoor stadium, playground, quarters, tables and chairs, learning aids, store room, campus security guard, school bus facilities, drinking water, toilets, emergency exit, fire extinguishers, link roads between the buildings, etc. Using the result of the hypotheses test (Mann-Whitney U test) an overall infrastructure table was constructed to determine which of the school has the best infrastructure as below:

Table 113: Schools Rank in Infrastructure

| Schools | Front-runner in Infrastructure |
|-----------------------|--------------------------------|
| Tipa vs Chawngte | Chawngte |
| Tipa vs Serchhip | Nil |
| Tipa vs Lunglei | Nil |
| Tipa vs Ngopa | Nil |
| Tipa vs Lawngtlai | Tipa |
| Chawngte vs Serchhip | Chawngte |
| Chawngte vs Lunglei | Nil |
| Chawngte vs Ngopa | Chawngte |
| Chawngte vs Lawngtlai | Chawngte |
| Serchhip vs Lunglei | Lunglei |
| Serchhip vs Ngopa | Ngopa |
| Serchhip vs Lawngtlai | Nil |
| Lunglei vs Ngopa | Nil |
| Lunglei vs Lawngtlai | Lunglei |
| Ngopa vs Lawngtlai | Ngopa |

Source: Field Survey, 2024

The 'nil' in the above table denotes the insignificant differences between the paired schools. The overall comparison shows that Chawngte EMRS has the best infrastructure among the six schools, followed by Lunglei and Ngopa in the second, Tipa trailing in the third and Serchhip and Lawngtlai at the last.

4.13 Comparison Based on the Non-Teaching Staff Perspectives:

Non-teaching staff are essential members of a school who, while not directly involved in classroom instruction, play a crucial role in the educational environment. They hold important and responsible positions within the school and contribute significantly to the smooth operation of daily activities. Their responsibilities include ensuring that resources are available for students, supporting both students and teachers, creating a positive learning environment, maintaining school safety, and upholding discipline. For a school to function effectively, it is vital for the management to invest in and support the non-teaching staff, as they are integral to the successful running of the institution.

This section presents the perspectives of 62 non-teaching staff who are fourth grades, medical attendants and lower division clerks of the 6 EMRS under study and their perspectives were obtained by employing 17 parameters.

4.13.1 Chawngte and Lawngtlai EMRS:

The parameters to compare the schools were set to capture the duties performed by the non-teaching staff in the day-to-day function of the schools. The table below presents the case summary of Lawngtlai and Chawngte EMRS based on the perceptions of the staff.

Table 114: Chawngte and Lawngtlai EMRS: Case Summary

| School | Responses | | |
|-----------|-----------|-----|-----|
| | Yes | No | |
| Chawngte | 81 | 69 | |
| Lawngtlai | 70 | 65 | |
| Total | 151 | 134 | 285 |

Source: Field Survey, 2024

As seen in the table above, the total number of positive responses from Chawngte EMRS is 81 and the negative responses is 69, whereas in Lawngtlai EMRS 70

positive responses were observed with 65 negative responses. Taking these responses, the two EMRS were compared using two proportion z-test as below:

Table 115: Chawngte and Lawngtlai EMRS: Two-proportion z-test

| Schools | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|-----------|----------------------------------|--------------------------|-----------|
| Chawngte | 0.54 | 0.3628 | 0.71884 |
| Lawngtlai | 0.5185 | | |
| Combined | 0.5298 | | |

Source: Own Calculation, 2024

Two-proportion z-test is utilized to evaluate the difference in the proportion of positive responses between the two schools. At a significance level of 0.05, we can support the null hypothesis as indicated by the z-value (0.3628) which is less than the critical value of -1.96, and a p-value (0.71884) which is greater than the significance level. It can therefore be concluded that there is an insignificant difference between Chawngte and Lawngtlai EMRS from the non-teaching staff perspectives.

4.13.2 Chawngte and Lunglei EMRS:

The perspectives of the staff of these schools were taken in order to analyze whether there is any significant variation in their opinions. The summary of their responses is given in the table below:

Table 116: Chawngte and Lunglei EMRS: Case Summary

| Schools | Responses | | |
|----------|-----------|-----|-----|
| | Yes | No | |
| Chawngte | 81 | 69 | 345 |
| Lunglei | 159 | 36 | |
| Total | 240 | 105 | |

Source: Field Survey, 2024

As shown in the table above, Chawngte EMRS received a total of 81 positive responses and 69 negative responses. In contrast, Lunglei EMRS has 159 positive responses and 36 negative responses. Using these data, a two-proportion z-test

was conducted to compare the staff responses from the two EMRS as outlined below:

Table 117: Chawngte and Lunglei EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|--------------------------|-----------|
| Chawngte | 0.54 | -5.5108 | <0.001 |
| Lunglei | 0.8154 | | |
| Combined | 0.6957 | | |

Source: Own Calculation, 2024

Between the two schools, at a significance level of 0.05, we reject the null hypothesis as indicated by the z-value (-5.5108) which is greater than the critical value of -1.96, and a p-value <0.001 which is less than the significance level. It can therefore be determined that there is a significant difference between Chawngte and Lunglei EMRS from the staff perspectives and Lunglei EMRS is better than Chawngte as also indicates by the proportion of 81% and 54%.

4.13.3 Chawngte and Serchhip EMRS:

These two EMRS were compared using the same indicators to capture the quality of both the schools based on their staff viewpoints. The case summary of both the schools is given as under:

Table 118: Chawngte and Serchhip EMRS: Case Summary

| School | Responses | | |
|----------|-----------|-----|-----|
| | Yes | No | |
| Chawngte | 81 | 69 | |
| Serchhip | 82 | 83 | |
| Total | 163 | 152 | 315 |

Source: Field Survey, 2024

In Chawngte EMRS there are 81 positive and 69 negative responses, whereas in Serchhip EMRS there are 82 positive and 83 negative responses. Based on these responses', a two-proportion z-test was performed to compare the responses from the

two EMRS.

Table 119: Chawngte and Serchhip EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|--------------------------|-----------|
| Chawngte | 0.54 | 0.7633 | 0.44726 |
| Serchhip | 0.497 | | |
| Combined | 0.5175 | | |

Source: Own Calculation, 2024

Since the calculated z-statistic 0.7633 is less than the critical value of ± 1.96 and the p-value is 0.44726 at 5% significance level we accept the null hypothesis, which posits no significant difference in the quality of the schools from the teachers' perspectives. Consequently, it can be concluded that, there is no significant variation between Chawngte and Serchhip EMRS according to the staff.

4.13.4 Chawngte and Ngopa EMRS:

These EMRSs were compared using the select 17 parameters and the result is summarized as below:

Table 120: Chawngte and Ngopa EMRS: Case Summary

| School | Responses | | |
|----------|-----------|-----|-----|
| | Yes | No | |
| Chawngte | 81 | 69 | 300 |
| Ngopa | 64 | 86 | |
| Total | 145 | 155 | |

Source: Field Survey, 2024

As shown in the table above, Chawngte EMRS received a total of 81 positive responses and 69 negative responses. In contrast, Ngopa EMRS has 64 positive responses and 86 negative responses. Using these data, a two- proportion z-test was conducted to compare the responses from the two EMRSAs outlined below:

Table 121: Chawngte and Ngopa EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|--------------------------|-----------|
| Chawngte | 0.54 | 1.9641 | 0.05 |
| Ngopa | 0.427 | | |
| Combined | 0.483 | | |

Source: Own Calculation, 2024

At a significance level of 0.05, we reject the null hypothesis as indicated by the z-value 1.9641 and a p-value of 0.05 which are equivalent to the significance level. It can therefore be concluded that there is an insignificant difference between Chawngte and Ngopa EMRS from the staff perspectives.

4.13.5 Chawngte and Tipa EMRS:

These two EMRS were compared using the same indicators to capture the quality of both the schools based on the non-teaching staff viewpoints. The case summary of both the schools is given as under.

Table 122: Chawngte and Tipa EMRS: Case Summary

| School | Responses | | |
|----------|-----------|-----|-----|
| | Yes | No | |
| Chawngte | 81 | 69 | |
| Tipa | 74 | 61 | |
| Total | 155 | 130 | 285 |

Source: Field Survey, 2024

Chawngte EMRS received 81 positive responses and 69 negative responses, while Tipa EMRS had 74 positive responses and 61 negative responses. To compare the responses from these two EMRS, a two-proportion z-test was conducted as outlined

below:

Table 123: Chawngte and Tipa EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|--------------------------|-----------|
| Chawngte | 0.54 | -0.1379 | 0.88866 |
| Tipa | 0.5481 | | |
| Combined | 0.5439 | | |

Source: Own Calculation, 2024

At a significance level of 0.05, the null hypothesis is accepted as indicated by the z-value of -0.1379 which is less than the critical value of -1.96, and a p-value of 0.88866 which is greater than the significance level. It can therefore be concluded that there is no significant difference between Chawngte and Tipa EMRS from the staff perspectives.

4.13.6 Lunglei EMRS and Lawngtlai EMRS:

For comparing the two schools, the responses were summarized in order to apprehend the positives and negatives perspectives of the staff with respect to the quality of their schools. And, the combined positives scores were further captured to determine the z-test value.

Table 124: Lunglei and Lawngtlai EMRS: Case Summary

| School | Responses | | |
|-----------|-----------|-----|-----|
| | Yes | No | |
| Lunglei | 159 | 36 | |
| Lawngtlai | 70 | 65 | |
| Total | 229 | 101 | 330 |

Source: Field Survey, 2024

In Lunglei EMRS a total of 159 positive responses and 36 negative responses of the staff were observed. Dissimilarity, Lawngtlai EMRS had 70 positive responses and 65 negative responses. Using these data, a two-proportion z-test was conducted to compare the responses from the two EMR schools.

Table 125: Lunglei and Lawngtlai EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p – value |
|-----------|----------------------------------|--------------------------|-----------|
| Lunglei | 0.8154 | 5.7534 | <0.001 |
| Lawngtlai | 0.5185 | | |
| Combined | 0.694 | | |

Source: Own Calculation, 2024

Since the calculated z-statistic (5.7534) surpasses the critical value of ± 1.96 and the p-value is < 0.001 at 5% significance level we reject the null hypothesis, which posits no significant difference in the quality of the schools from the staff perceptions. From the proportion it can be seen that Lunglei secured 81% and Lawngtlai scored 51%. Consequently, it can be concluded that, there is a significant difference between the two schools according to the staff and the management of Lunglei EMRS is better than that of Lawngtlai EMRS.

4.13.7 Lunglei EMRS and Serchhip EMRS:

For comparing the two schools, the responses were summarized in order to apprehend the positives and negatives perspectives of the staff with respect to the management of the schools. And, the combined positives scores were further captured to determine the z-test value.

Table 126: Lunglei and Serchhip EMRS: Case Summary

| School | Responses | | |
|----------|-----------|-----|-----|
| | Yes | No | |
| Lunglei | 159 | 36 | |
| Serchhip | 82 | 83 | |
| Total | 241 | 119 | 360 |

Source: Field Survey, 2024

In Lunglei EMRS, there were 159 positive responses and 36 negative responses from the teachers. Conversely, Serchhip EMRS has 82 positive responses and 83 negative responses. Using these data, a two-proportion z-test was conducted to compare the responses from the two EMR schools.

Table 127: Lunglei and Serchhip EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|--------------------------|-----------|
| Lunglei | 0.8154 | 6.3991 | <0.001 |
| Serchhip | 0.497 | | |
| Combined | 0.669 | | |

Source: Own Calculation, 2024

The calculated z-statistic (6.3991) exceeds the critical value of ± 1.96 and the p- value is <0.001 at 5% significance level we reject the null hypothesis. From the proportion it can be seen that Lunglei secured 81% and Serchhip scored 49%. It can therefore be determined that, there is a significant difference between the two schools from the staff viewpoints and the management of Lunglei EMRS is better than that of Serchhip EMRS.

4.13.8 Lunglei EMRS and Ngopa EMRS:

The case summary of Lunglei and Serchhip EMRS based on the 17 parameters utilized for the comparative analysis of the staff perceptions is given below:

Table 128: Lunglei and Ngopa EMRS: Case Summary

| School | Responses | | |
|---------|-----------|-----|-----|
| | Yes | No | |
| Lunglei | 159 | 36 | |
| Ngopa | 64 | 86 | |
| Total | 223 | 122 | 345 |

Source: Field Survey, 2024

As seen in the table above, the total number of positive responses from Lunglei EMRS is 159 with 36 negative responses whereas it was observed that there are 64 positive and 86 negative responses in Ngopa EMRS. Taking these responses, the two EMRS were compared as below:

Table 129: Lunglei and Ngopa EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|--------------------------|-----------|
| Lunglei | 0.8154 | 7.4864 | <0.001 |
| Ngopa | 0.427 | | |
| Combined | 0.64638 | | |

Source: Own Calculation, 2024

In the case of Lunglei and Ngopa, we reject the null hypothesis, which stated that there is no significant difference in the schools from the staff perspectives. From the proportion it can be seen that Lunglei secured 81% and Ngopa recorded 42% and the calculated z-statistic is 7.4864 which is higher than the critical value of ± 1.96 and the p-value is <0.001 at 5% significance level. It can be resolved that, there is a significant difference between the two schools based on the opinions of the staff and Lunglei EMRS exceeds Ngopa EMRS in their day-to-day managements.

4.13.9 Lunglei EMRS and Tipa EMRS:

The case summary of Lunglei and Tipa EMRS based on the various parameters utilized for the comparative analysis is given below:

Table 130: Lunglei EMRS and Tipa EMRS: Case Summary

| School | Responses | | |
|---------|-----------|----|-----|
| | Yes | No | |
| Lunglei | 159 | 36 | |
| Tipa | 74 | 61 | |
| Total | 233 | 97 | 330 |

Source: Field Survey, 2024

The total number of positive responses from Lunglei EMRS is 159 with 36 negative responses whereas there are 74 positive and 61 negative responses in Tipa EMRS. Taking these responses, the two EMRS were compared as below to test the significance level.

Table 131: Lunglei and Tipa EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|--------------------------|-----------|
| Lunglei | 0.8154 | 5.2393 | <0.001 |
| Tipa | 0.5481 | | |
| Combined | 0.7061 | | |

Source: Own Calculation, 2024

We reject the null hypothesis, which stated that there is no significant difference in the schools from the teachers' perspectives since the calculated z-statistic (5.2393) is greater than the critical value of ± 1.96 and the p-value is < 0.001 at 5% significance level. From the proportion it can be seen that Lunglei secured 81% and Tipa notched 54%. Accordingly, it can be concluded that, there is a significant difference between the two schools based on the views of the staff and Lunglei EMRS fare better than Tipa EMRS.

4.13.10 Serchhip EMRS and Lawngtlai EMRS:

The case summary of Serchhip and Lawngtlai EMRS, based on various parameters used for the comparative analysis, is provided below:

Table 132: Serchhip and Lawngtlai EMRS: Case Summary

| School | Responses | | |
|-----------|-----------|-----|-----|
| | Yes | No | |
| Serchhip | 82 | 83 | |
| Lawngtlai | 70 | 65 | |
| Total | 152 | 148 | 300 |

Source: Field Survey, 2024

Serchhip EMRS has 82 positive responses and 83 negative responses while there are 70 positive and 65 negative responses from Lawngtlai EMRS. Using these data, a two-proportion z-test was conducted to compare the responses from the two EMRS.

Table 133: Serchhip and Lawngtlai EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|-----------|----------------------------------|-----------------------------|-----------|
| Serchhip | 0.497 | -0.3714 | 0.71138 |
| Lawngtlai | 0.5185 | | |
| Combined | 0.507 | | |

Source: Own Calculation, 2024

The calculated z-score between these schools is -0.3714, with a p-value of 0.71138. These results allow us to accept the null hypothesis and conclude that there is no significant variations between Serchhip and Lawngtlai EMRS from the staff perspectives.

4.13.11: Serchhip EMRS and Ngopa EMRS:

The case summary of Serchhip and Ngopa EMRS, based on various parameters used for the comparative analysis, is provided below:

Table 134: Serchhip and Ngopa EMRS: Case Summary

| School | Responses | | |
|----------|-----------|-----|-----|
| | Yes | No | |
| Serchhip | 82 | 83 | |
| Ngopa | 64 | 86 | |
| Total | 146 | 169 | 315 |

Source: Field Survey, 2024

In Serchhip EMRS, 82 positive responses and 83 negative responses were observed while 64 positive and 86 negative responses were recorded from Ngopa EMRS. Using these data, a two-proportion z-test was conducted to compare the responses from the two EMRS.

Table 135: Serchhip and Ngopa EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p – value |
|----------|----------------------------------|--------------------------|-----------|
| Serchhip | 0.497 | 1.2497 | 0.2113 |
| Ngopa | 0.427 | | |
| Combined | 0.4635 | | |

Source: Own Calculation, 2024

We support the null hypothesis, which stated that there is no significant difference in the schools from the staff' perspectives since the calculated z- statistic (1.2497) is less than the critical value of ± 1.96 and the p-value is 0.2113 at 5% significance level. Accordingly, it can be concluded that, there is an insignificant variation between the two schools based on the views of the non- teaching staff.

4.13.12 Serchhip EMRS and Tipa EMRS:

The case summary of Serchhip and Tipa EMRS, based on the 17 parameters used for the comparative analysis of the staff viewpoints is shown below:

Table 136: Serchhip and Tipa EMRS: Case Summary

| School | Responses | | |
|----------|-----------|-----|-----|
| | Yes | No | |
| Serchhip | 82 | 83 | 300 |
| Tipa | 74 | 61 | |
| Total | 156 | 144 | |

Source: Field Survey, 2024

In Serchhip EMRS, we have 82 positive responses and 83 negative responses while 74 positive and 61 negative responses were received from Tipa EMRS. A two-proportion z-test was done to compare the responses from these EMRS.

Table 137: Serchhip and Tipa EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p - value |
|----------|----------------------------------|--------------------------|-----------|
| Serchhip | 0.497 | -0.8827 | 0.37886 |
| Tipa | 0.5481 | | |
| Combined | 0.52 | | |

Source: Own Calculation, 2024

Since the calculated z-statistic (-0.8827) is less than the critical value of ± 1.96 and the p-value is 0.37886 at 5% significance level we accept the null hypothesis, which stated that there is no significant difference in the quality of the schools from the staff opinions. Accordingly, it can be concluded that, there is an insignificant difference between the two schools from the viewpoints of the staff.

4.13.13 Ngopa EMRS and Lawngtlai EMRS:

The case summary of the EMRS from the staff perceptions is presented below, in this case summary, the negative and positive responses on the 17 indicators employed for the study was tabulated as below:

Table 138: Ngopa and Lawngtlai EMRS: Case Summary

| School | Responses | | |
|-----------|-----------|-----|-----|
| | Yes | No | |
| Ngopa | 64 | 86 | |
| Lawngtlai | 70 | 65 | |
| Total | 134 | 151 | 285 |

Source: Field Survey, 2024

In Ngopa EMRS, 64 positive responses and 86 negative responses were obtained while 70 positive and 65 negative responses for the indicators were received from Lawngtlai EMRS. A two-proportion z-test was done to compare the responses from

these EMRS.

Table 139: Ngopa and Lawngtlai EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p – value |
|-----------|----------------------------------|--------------------------|-----------|
| Ngopa | 0.427 | -1.5513 | 0.12114 |
| Lawngtlai | 0.5185 | | |
| Combined | 0.47 | | |

Source: Own Calculation, 2024

As seen in the table above, the calculated z-statistic is (-1.5513) less than the critical value of ± 1.96 and the p-value is 0.5157 at 5% significance level we accept the null hypothesis, which stated that there is no significant difference in the quality of the schools from the staff perspectives. Hence, it can be concluded that, there is an insignificant dissimilarity between Ngopa and Lawngtlai EMRS from the viewpoints of the non-teaching staff.

4.13.14 Ngopa EMRS and Tipa EMRS:

The perceptions of the non-teaching staff of Ngopa and Tipa schools were analysed by recording their responses. Their case summary is given as under:

Table 140: Ngopa and Tipa EMRS: Case Summary

| School | Responses | | |
|--------|-----------|-----|-----|
| | Yes | No | |
| Ngopa | 64 | 86 | 285 |
| Tipa | 74 | 61 | |
| Total | 138 | 147 | |

Source: Field Survey, 2024

From the staff of Ngopa EMRS, 64 positive responses and 86 negative responses were obtained while 74 positive and 61 negative responses were received from Tipa EMRS staff. A two-proportion z-test was done to compare the responses from these EMRS.

Table 141: Ngopa and Tipa EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p – value |
|----------|----------------------------------|--------------------------|-----------|
| Ngopa | 0.427 | -2.049 | 0.04036 |
| Tipa | 0.5481 | | |
| Combined | 0.4842 | | |

Source: Own Calculation, 2024

Since the calculated z-statistic (-2.049) is greater than the critical value of ± 1.96 and the p-value 0.04036 is less than the significance level of 0.05, we cannot support the null hypothesis. From the proportion it can also be seen that Ngopa secured 42% and Tipa scored 54%. Hence, it can be concluded that, there is a significant difference between Ngopa and Tipa EMRS and Ngopa’s management is better than Tipa EMRS from the staff viewpoints.

4.13.15 Lawngtlai EMRS and Tipa EMRS:

The case summary of Lawngtlai and Tipa EMRS based on various parameters used for the comparative analysis of the staff is highlighted below:

Table 142: Lawngtlai and Tipa EMRS: Case Summary

| School | Responses | | |
|-----------|-----------|-----|-----|
| | Yes | No | |
| Lawngtlai | 70 | 65 | |
| Tipa | 74 | 61 | |
| Total | 144 | 126 | 270 |

Source: Field Survey, 2024

Lawngtlai EMRS has 70 positive responses and 65 negative responses while there are 74 positive and 61 negative responses from Tipa EMRS. Using these data, a two-proportion z-test was conducted to compare the responses from the two EMRS.

Table 143: Lawngtlai and Tipa EMRS: Two-proportion z-test

| School | Proportion of Positive Responses | z-statistic (2 – tailed) | p – value |
|-----------|----------------------------------|-----------------------------|-----------|
| Lawngtlai | 0.5185 | -0.488 | 0.62414 |
| Tipa | 0.5481 | | |
| Combined | 0.53 | | |

Source: Own Calculation, 2024

At a significance level of 0.05, we can admit the null hypothesis as indicated by the z-value -0.488 which is less than the critical value of ± 1.96 , and a p-value of 0.62414 which is greater than the significance level. It can therefore be concluded that there is an insignificant difference in the managements of Lawngtlai and Tipa EMRS from thenon-teaching staff perspectives.

4.13.16 Overall Ranking of the Schools: Non-Teaching Staff Perceptions:

Using the result of the hypotheses tests, we construct the table below to determine which school’s management is better from the perspectives of the staff.

Table 144: Schools Rank from the Staff Perspectives

| Schools | Winner |
|-----------------------|---------|
| Tipa vs Chawngte | Nil |
| Tipa vs Serchhip | Nil |
| Tipa vs Lunglei | Lunglei |
| Tipa vs Ngopa | Tipa |
| Tipa vs Lawngtlai | Nil |
| Chawngte vs Serchhip | Nil |
| Chawngte vs Lunglei | Lunglei |
| Chawngte vs Ngopa | Nil |
| Chawngte vs Lawngtlai | Nil |
| Serchhip vs Lunglei | Lunglei |
| Serchhip vs Ngopa | Nil |
| Serchhip vs Lawngtlai | Nil |
| Lunglei vs Ngopa | Lunglei |
| Lunglei vs Lawngtlai | Lunglei |
| Ngopa vs Lawngtlai | Nil |

Source: Field Survey, 2024

The 'nil in the above table represents the insignificant differences between the paired schools. In terms of the managements of the 6 EMRS from the perspectives of the non-teaching staff, the pairwise comparisons shows that Lunglei EMRS outperform every other school, and Tipa EMRS outperforms only Ngopa EMRS. Using these results, it can be determined that Lunglei EMRS secured the 1st rank, Tipa 2nd rank and all the other EMRS in the third rank.

4.14 EMRS Hostels Comparison:

All EMRS are residential schools, they provide halls of residence for all the students as per the guidelines of the EMRS, Ministry of Unio Tribal Affairs, Government of India. A well-functioning and comfortable hostel facility significantly impacts students' lives by providing a nurturing and supportive environment outside their homes. In these communal spaces, students develop essential life skills, learn independence, and forge lifelong friendships. Hostel facilities offer a structured academic setting with designated study hours, library access, and mentorship, fostering discipline, focus, and a conducive learning atmosphere.

Living in hostels encourages daily interaction and collaboration among peers, promoting the development of vital social skills like effective communication, teamwork, conflict resolution, and empathy. Students learn to respect differences, cooperate, and form meaningful relationships. Exposure to various situations in hostel life helps students build resilience, adaptability, and problem-solving abilities. They gain confidence in facing challenges, taking initiatives, and discovering their strengths and talents. The convenience of hostel facilities within the school further enhances this experience, contributing to personal growth and preparing students for future challenges. These experiences become invaluable as they transition to higher education and professional life.

The 6 EMRS hostels were compared by utilizing 40 parameters pertaining to the quality and management of the hostels. As highlighted above, the EMRS are residential schools.

4.14.1 Reliability Test: Cronbach's Alpha test:

Cronbach's Alpha test is performed to test the internal consistency of the scale assigned to the ordinal value.

Table 145: Reliability Test

| Cronbach's Alpha | N of Items |
|------------------|------------|
| 0.951 | 40 |

Source: Own Calculation, 2024

0.951 falls within the range of $\alpha \geq 0.9$. This indicates that the questions in the items are highly correlated with each other and are consistently measuring the same underlying construct, i.e., the quality of hostel infrastructures.

4.14.2 Kruskal-Wallis Test:

Kruskal-Wallis test was employed to determine if there exists a statistically significant difference in the quality of the hostels among the six schools. This omnibus test assesses whether the medians of the ranked data differ significantly across groups. To obtain the mean rank of the schools the following table was formed.

Table 146: Hostels Rank

| | School | N | Mean Rank |
|-------------|-----------|-----|-----------|
| Rank scores | Tipa | 40 | 113.78 |
| | Chawngte | 40 | 158.66 |
| | Serchhip | 40 | 66.95 |
| | Lunglei | 40 | 142.28 |
| | Ngopa | 40 | 127.56 |
| | Lawngtlai | 40 | 113.78 |
| | Total | 240 | |

Source: Own Calculation, 2024

The mean rank is the average of the ranks of all the six schools which was utilized to determine the Kruskal- Wallis (H) value. As seen in the above table, Chawngte secured the highest mean rank with 158.66 and the lowest is SerchhipEMRS with a mean rank of 66.95.

Table 147: Hostels Rank: Test Statistics

| Rank scores | |
|-------------------------------|--------|
| Kruskal-Wallis H | 57.441 |
| Degree of Freedom (df) | 5 |
| Asymptotic. Sig. | <.001 |

Source: Own Calculation, 2024

The analysis shows that at $\alpha=0.05$ there are significant differences in the quality of the EMRS hostels across the six schools as indicated by the $H(5) = 57.441$ and $p\text{-value} < 0.001$. Since H is greater than the critical value, there is significant evidence against the null hypothesis which stated that there is no variation amongst the hostels. It can therefore be determined that there are statistically significant differences in the quality of the hostels across the 6 schools under study during the study period.

4.14.3 Post-hoc Analysis: Mann-Whitney U Test:

Since Kruskal-Wallis Test above indicates a significant difference in quality of hostels across the 6 schools, a pairwise comparisons using Mann-Whitney U test was undertaken to identify which schools differs significantly from each other and which schools are having an insignificant difference during the study period. Normal approximation method i.e., z-value is employed as a basis for rejecting or accepting the null hypothesis. The sections below presented the comparative analysis of the 6 ERMS in terms of the hostel's quality and management.

4.14.4 Tipa and Chawngte EMRS:

The halls of residences of these schools were compared based on 40 parameters and their mean rank is presented below.

Table 148: Tipa and Chawngte EMRS Hostels Rank

| | School | N | Mean Rank | Sum of Ranks |
|-------------|----------|----|-----------|--------------|
| Rank scores | Tipa | 40 | 23.44 | 937.50 |
| | Chawngte | 40 | 57.56 | 2302.50 |
| | Total | 80 | | |

Source: Own Calculation, 2024

The mean rank is obtained by assigning values to the parameters which was listed in ascending order to get the average rank of the schools. Tipa's mean rank is 23.44 and Chawngte mean rank is 57.56. The higher mean rank indicates higher quality of infrastructures but whether this difference is significant or insignificant to accept or reject the null hypothesis, a test was conducted as below:

Table 149: Tipa and Chawngte EMRS Hostels: Test Statistics

| Rank scores | |
|------------------------|---------|
| Mann-Whitney U | 117.500 |
| Z | -7.246 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

To evaluate the difference between the quality of hostels between Tipa EMRS and Chawngte EMRS, Mann-Whitney U test was utilized. The test revealed significant differences in the hostels' quality between Tipa EMRS and Chawngte EMRS as indicated by U value of 397, z-score of -7.246 which is greater than the critical value of ± 1.96 and $p < 0.001$ which is less than the significance level of 0.05. We therefore reject the null hypothesis and concluded that Chawngte EMRS Hostels are better than Tipa EMRS.

4.14.5 Tipa and Serchhip EMRS:

These schools rank in terms of their hostel facilities based on the select indicators are given below:

Table 150: Tipa and Serchhip EMRS Hostels Rank

| | School | N | Mean Rank | Sum of Ranks |
|-------------|----------|----|-----------|--------------|
| Rank scores | Tipa | 40 | 36.05 | 1442.00 |
| | Serchhip | 40 | 44.95 | 1798.00 |
| | Total | 80 | | |

Source: Own Calculation, 2024

Tipa's mean rank is 36.05 and Serchhip mean rank is 44.95, it can be observed that there is a difference between the two schools but whether this difference is significant or insignificant to accept or reject the null hypothesis, a test was carried out as below:

Table 151: Tipa and Serchhip EMRS Hostels: Test Statistics

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 622.000 |
| Z | -1.834 |
| Asymp. Sig. (2-tailed) | 0.067 |

Source: Own Calculation, 2024

The test revealed insignificant differences in the quality of infrastructures between Tipa EMRS and Serchhip EMRS as indicated by U value of 622, z-score of -1.834 which is less than the critical value of ± 1.96 and p-value of 0.067 which is greater than the significance level of 0.05. We therefore accept the null hypothesis and concluded that there is no significant difference between Tipa EMRS and Serchhip EMRS in terms of their hostel facilities.

4.14.6 Tipa and Lunglei EMRS:

Tipa and Lunglei EMRS were compared in terms of their hostel amenities to obtain their mean rank as below:

Table 152: Tipa and Lunglei EMRS Hostels Rank

| | School | N | MeanRank | Sum of Ranks |
|-------------|---------|----|----------|--------------|
| Rank scores | Tipa | 40 | 26.43 | 1057.00 |
| | Lunglei | 40 | 54.58 | 2183.00 |
| | Total | 80 | | |

Source: Own Calculation, 2024

Tipa's mean rank is 26.43, while Lunglei's mean rank is 54.58. Although there is an observable difference between the two schools, a test was conducted to determine whether this difference is significant or insignificant enough to accept or reject the null hypothesis, as detailed below:

Table 153: Tipa and Lunglei EMRS Rank Scores

| | |
|------------------------|---------|
| Rank scores | |
| Mann-Whitney U | 237.000 |
| Z | -5.828 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

The test revealed significant differences in the quality of infrastructures between Tipa EMRS and Lunglei EMRS as indicated by the u value of 237, z-score of -5.828 which is greater than the critical value of ± 1.96 and p-value of <.001 which is less than the significance level of 0.05. The null hypothesis is rejected and we determined that there is a significant difference in the quality of hostels between Tipa EMRS and Lunglei EMRS and Lunglei EMRS has better hostel amenities than Tipa EMRS.

4.14.7 Tipa and Ngopa EMRS:

Tipa and Ngopa EMRS were compared in terms of their hostels to obtain their mean rank as under:

Table 154: Tipa and Ngopa EMRS Hostels Rank

| | School | N | MeanRank | Sum ofRanks |
|-------------|--------|----|----------|-------------|
| Rank scores | Tipa | 40 | 28.54 | 1141.50 |
| | Ngopa | 40 | 52.46 | 2098.50 |
| | Total | 80 | | |

Source: Own Calculation, 2024

It can be seen that Ngopa EMRS mean rank is 52.46 while Tipa EMRS has a mean rank of 28.54. Though there is a difference in their mean ranks, whether this difference is significant or insignificant to accept or reject the null hypothesis, the following analysis was carried out.

Table 155: Tipa and Ngopa EMRS Hostels: Test Statistics

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 321.500 |
| Z | -4.865 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

The null hypothesis is rejected since the U value is 321.5, z-score is -4.865 which is greater than the critical value of ± 1.96 and p-value is $<.001$ which is less than the significance level of 0.05. Hence, the test statistics shows that there is a significant difference in the quality of the hostels of Tipa and Ngopa and Ngopa EMRS has better residential amenities that Tipa EMRS.

4.14.8 Tipa and Lawngtlai EMRS:

The mean rank calculated from their sum of ranks of Tipa and Lawngtlai EMRS is presented in table below:

Table 156: Tipa and Lawngtlai EMRS Hostels Rank

| | School | N | Mean Rank | Sum of Ranks |
|-------------|-----------|----|-----------|--------------|
| Rank scores | Tipa | 40 | 28.63 | 1145.00 |
| | Lawngtlai | 40 | 52.38 | 2095.00 |
| | Total | 80 | | |

Source: Own Calculation, 2024

It can be seen that Lawngtlai EMRS has better infrastructural facilities with a mean rank of 52.38 while Tipa EMRS has a lower mean rank of 28.63. While there is an observable difference between the two schools, a test was undertaken to see whether this difference is significant or insignificant to accept or reject the null hypothesis, as given below:

Table 157: Tipa and Lawngtlai EMRS Hostels: Test Statistics

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 325.000 |
| Z | -4.819 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

As indicated by the U value of 325, z-score of -4.819 which is greater than the critical value of ± 1.96 and p-value of <.001 which is less than the significance level of 0.05, the null hypothesis is rejected. It can be determined that there is a significant difference in the quality of hostels between the two schools and Lawngtlai EMRS has better hostel amenities than Tipa EMRS.

4.14.9 Chawngte and Serchhip EMRS:

The mean rank calculated from their sum of ranks of the two EMRS is given below. The N value indicates the total number of parameters utilized for the comparison.

Table 158: Chawngte and Serchhip EMRS Hostels Rank

| | School | N | Mean Rank | Sum of Ranks |
|-------------|----------|----|-----------|--------------|
| Rank scores | Chawngte | 40 | 55.65 | 2226.00 |
| | Serchhip | 40 | 25.35 | 1014.00 |
| | Total | 80 | | |

Source: Own Calculation, 2024

It can be seen that Chawngte EMRS has better hostel facilities with a mean rank of 55.65 while Serchhip EMRS has a lower mean rank of 25.35. Although there is an apparent difference between the two schools, a test was conducted to check whether this difference is significant or insignificant enough to accept or reject the null hypothesis, as detailed below:

Table 159: Chawngte and Serchhip EMRS Hostels: Test Statistics

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 194.000 |
| Z | -6.601 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

Normal approximation method i.e., z-value is employed as a basis for rejecting or accepting the null hypothesis and as indicated by the U value of 194, z-score of -6.601 which is greater than the critical value of ± 1.96 and p-value of

<.001 which is less than the significance level of 0.05, the null hypothesis cannot be accepted. It can be resolved that there is a significant difference in the quality of

hostels and Chawngte EMRS has better residential facilities than Serchhip EMRS.

4.14.10 Chawngte and Lunglei EMRS:

The mean rank calculated from their sum of ranks of the two EMRS is given below. The N value indicates the total number of parameters utilized for the comparison.

Table 160: Chawngte and Lunglei EMRS Hostels Rank

| | School | N | Mean Rank | Sum of Ranks |
|-------------|----------|----|-----------|--------------|
| Rank scores | Chawngte | 40 | 42.96 | 1718.50 |
| | Lunglei | 40 | 38.04 | 1521.50 |
| | Total | 80 | | |

Source: Own Calculation, 2024

Since the higher mean rank indicates a higher quality in terms of infrastructure, it can be seen that Chawngte EMRS has better infrastructural facilities with a mean rank of 42.96 than Lunglei EMRS with a mean rank of 38.04. Nonetheless, whether this difference is significant or insignificant to admit or discard the null hypothesis, the following analysis was carried out.

Table 161: Chawngte and Lunglei EMRS Hostels: Test Statistics

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 701.500 |
| Z | -1.934 |
| Asymp. Sig. (2-tailed) | .053 |

Source: Own Calculation, 2024

As indicated by the U value of 701.5, z-score of -1.934 which is less than the critical value of ± 1.96 and p-value of .053 which is greater than the significance level of 0.05, the null hypothesis is accepted that there is an insignificant difference in the quality of hostels between Chawngte and Lunglei EMRS.

4.14.11 Chawngte and Ngopa EMRS:

The mean rank calculated from their sum of ranks of Tipa and Lawngtlai EMRS is presented in table below:

Table 162: Chawngte and Ngopa EMRS Hostels Rank

| | School | N | Mean Rank | Sum of Ranks |
|-------------|----------|----|-----------|--------------|
| Rank scores | Chawngte | 40 | 45.43 | 1817.00 |
| | Ngopa | 40 | 35.58 | 1423.00 |
| | Total | 80 | | |

Source: Own Calculation, 2024

With a mean rank of 45.43 Chawngte EMRS has better hostel facilities as compared to Ngopa EMRS with a mean rank of 35.58. Although there is a noticeable difference between the two schools, a test was carried out to resolve whether this difference is significant or insignificant enough to accept or reject the null hypothesis, as detailed below:

Table 163: Chawngte and Ngopa EMRS Hostels: Test Statistics

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 603.000 |
| Z | -3.055 |
| Asymp. Sig. (2-tailed) | .002 |

Source: Own Calculation, 2024

As indicated by the U value of 603, z-score of -3.055 which is greater than the critical value of ± 1.96 and p-value of .002 which is less than the significance level of 0.05, the null hypothesis cannot be admitted. It can be determined that there is a significant difference in the quality of hostels and Chawngte EMRS has better hostel amenities than Ngopa EMRS.

4.14.12 Chawngte and Lawngtlai EMRS:

The mean rank calculated from their sum of ranks of the two EMRS is given below. The N value indicates the total number of parameters utilized for the comparison.

Table 164: Chawngte and Lawngtlai EMRS Hostels Rank

| | School | N | Mean Rank | Sum of Ranks |
|-------------|-----------|----|-----------|--------------|
| Rank scores | Chawngte | 40 | 48.31 | 1932.50 |
| | Lawngtlai | 40 | 32.69 | 1307.50 |
| | Total | 80 | | |

Source: Own Calculation, 2024

Since the higher mean rank indicates a higher quality in terms of hostels, it can be seen that Chawngte EMRS has better hostel facilities with a mean rank of 48.31 as compared to Lawngtlai EMRS with a mean rank of 32.69. Nonetheless, a test was conducted to determine whether this difference is significant or insignificant to support or discard the null hypothesis, as detailed below.

Table 165: Chawngte and Lawngtlai EMRS Hostels: Test Statistics

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 487.500 |
| Z | -4.130 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

As indicated by the U value of 487.5, z-score of -4.130 which is greater than the critical value of ± 1.96 and p-value of $<.001$ which is less than the significance level of 0.05, the null hypothesis cannot be accepted. The test statistics shows that there is a significant difference in the quality of hostels amid Chawngte and Lawngtlai EMRS and Chawngte has better residential facilities than Lawngtlai EMRS.

4.14.13 Serchhip and Lunglei EMRS:

From the sum of ranks of the two EMRS, their mean rank is obtained. The N value indicates the total number of parameters utilized for the comparison of the two schools with regards to their hostel facilities.

Table 166: Serchhip and Lunglei EMRS Hostels Rank

| | School | N | Mean Rank | Sum of Ranks |
|-------------|----------|----|-----------|--------------|
| Rank scores | Serchhip | 40 | 28.45 | 1138.00 |
| | Lunglei | 40 | 52.55 | 2102.00 |
| | Total | 80 | | |

Source: Own Calculation, 2024

It can be seen that Lunglei EMRS has better hostel amenities with a mean rank of 52.55 while Serchhip EMRS has a lower mean rank of 28.45. However, a test was conducted to determine whether this difference is significant or insignificant to accept or reject the null hypothesis as presented in the table below:

Table 167: Serchhip and Lunglei EMRS Hostels: Test Statistics

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 318.000 |
| Z | -5.083 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

Normal approximation method i.e., z-value is employed as a basis for rejecting or accepting the null hypothesis and as indicated by the U value of 318, z-score of -5.083 which is greater than the critical value of ± 1.96 and p-value of <.001 which is less than the significance level of 0.05, the null hypothesis cannot be supported. It can therefore, be resolved that there is a significant difference in the quality of hostels among the two schools and Lunglei EMRS has better hostel amenities than Serchhip EMRS.

4.14.14 Serchhip and Ngopa EMRS:

The mean rank calculated from their sum of ranks of Serchhip and Ngopa EMRS is presented in table below:

Table 168: Serchhip and Ngopa EMRS Hostels Rank

| | School | N | Mean Rank | Sum of Ranks |
|-------------|----------|----|-----------|--------------|
| Rank scores | Serchhip | 40 | 30.85 | 1234.00 |
| | Ngopa | 40 | 50.15 | 2006.00 |
| | Total | 80 | | |

Source: Own Calculation, 2024

From the sum of ranks of both the schools, their mean ranks were derived and Ngopa EMRS with a mean rank of 50.15 has better hostel facilities than Serchhip EMRS which has a lesser mean rank of 30.85. Although there is a noticeable difference between the two schools, a test was carried out to resolve whether this difference is significant or insignificant enough to accept or reject the null hypothesis, as given below:

Table 169: Serchhip and Ngopa EMRS Hostels: Test Statistics

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 414.000 |
| Z | -3.995 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

As indicated by the U value of 414 and the z-score of -3.995 which is greater than the critical value of ± 1.96 and p-value of <.001 which is less than the significance level of 0.05, the null hypothesis is rejected. It can be determined that there is a significant difference in the quality of the residentials and Ngopa EMRS has better residential amenities than Serchhip EMRS.

4.14.15 Serchhip and Lawngtlai EMRS:

From their sum of ranks of the two EMRS, their mean ranks were derived and The N value indicates the total number of parameters utilized for the comparison.

Table 170: Serchhip and Lawngtlai EMRS Hostels Rank

| | School | N | Mean Rank | Sum of Ranks |
|-------------|-----------|----|-----------|--------------|
| Rank scores | Serchhip | 40 | 32.15 | 1286.00 |
| | Lawngtlai | 40 | 48.85 | 1954.00 |
| | Total | 80 | | |

Source: Own Calculation, 2024

It can be seen that Serchhip EMRS has mean rank of 32.15 and Lawngtlai EMRS has a mean rank of 48.85, this mean rank shows that there is a difference in the two EMRS in terms of their hostel facilities but whether this difference is significant or insignificant to support or discard the null hypothesis is captured by the test statistics below:

Table 171: Serchhip and Lawngtlai EMRS Hostels: Test Statistics

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 466.000 |
| Z | -3.447 |
| Asymp. Sig. (2-tailed) | <.001 |

Source: Own Calculation, 2024

As indicated by the U value of 466 and the z-score of -3.447 which is greater than the critical value of ± 1.96 and p-value of $< .001$ which is less than the significance level of 0.05, the null hypothesis cannot be accepted. This shows that there is a significant difference in the quality of hostels between Serchhip and Lawngtlai EMRS and Lawngtlai EMRS has better hostel facilities than Serchhip EMRS.

4.14.16 Lunglei and Ngopa EMRS:

The mean rank calculated from the sum of ranks of the two EMRS is presented below. The N value indicates the total number of parameters utilized for the comparison.

Table 172: Lunglei and Ngopa EMRS Hostels Rank

| | School | N | MeanRank | Sum ofRanks |
|-------------|---------|----|----------|-------------|
| Rank scores | Lunglei | 40 | 42.89 | 1715.50 |
| | Ngopa | 40 | 38.11 | 1524.50 |
| | Total | 80 | | |

Source: Own Calculation, 2024

The mean rank for Lunglei is 42.89 while for Ngopa EMRS it is 38.11. This indicates a difference in hostels between the two EMRS. To determine whether this difference is significant enough to support or reject the null hypothesis, further testing is required, as detailed below:

Table 173: Lunglei and Ngopa EMRS Hostels: Test Statistics

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 704.500 |
| Z | -1.287 |
| Asymp. Sig. (2-tailed) | 0.198 |

Source: Own Calculation, 2024

With U value of 704.5 and a z-score of -1.287, which is less than the critical value of ± 1.96 , and the p-value of 0.198, which is greater than the significance level of 0.05, indicate that the null hypothesis is accepted. Hence, there is insignificant difference in the quality of hostels between Lunglei and Ngopa EMRS.

4.14.17 Lunglei and Lawngtlai EMRS:

The mean rank for the two schools with regards to their hostel facilities is calculated from their sum of ranks as presented in table below:

Table 174: Lunglei and Lawngtlai EMRS Hostels Rank

| | School | N | Mean Rank | Sum of Ranks |
|-------------|-----------|----|-----------|--------------|
| Rank scores | Lunglei | 40 | 45.40 | 1816.00 |
| | Lawngtlai | 40 | 35.60 | 1424.00 |
| | Total | 80 | | |

Source: Own Calculation, 2024

As observed in the above table, Lunglei EMRS with a mean rank of 45.40 has better hostel amenities than Lawngtlai EMRS which has a lesser mean rank of 35.60. In order to determine whether there exist a significant or insignificant difference to accept or reject the null hypothesis the following test was conducted.

Table 175: Lunglei and Lawngtlai EMRS Hostels: Test Statistics

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 604.000 |
| Z | -2.373 |
| Asymp. Sig. (2-tailed) | 0.018 |

Source: Own Calculation, 2024

As indicated by the U value of 604 with a z-score of -2.373 which is greater than the critical value of ± 1.96 and p-value of 0.018 which is less than the significance level of 0.05, the null hypothesis cannot be admitted. It can therefore be resolved that there is a significant difference in the quality of hostels and Lunglei EMRS has better hostel amenities than Lawngtlai EMRS.

4.14.18 Ngopa and Lawngtlai EMRS:

The mean rank calculated from their sum of ranks of Ngopa and Lawngtlai EMRS is presented in below:

Table 176: Ngopa and Lawngtlai EMRS Hostels Rank

| | School | N | Mean Rank | Sum of Ranks |
|-------------|-----------|----|-----------|--------------|
| Rank scores | Ngopa | 40 | 42.86 | 1714.50 |
| | Lawngtlai | 40 | 38.14 | 1525.50 |
| | Total | 80 | | |

Source: Own Calculation, 2024

It can be observed that with a mean rank of 42.86, Ngopa EMRS has better hostels as compared to Lawngtlai EMRS whose mean rank is 38.14. Nonetheless, whether this difference is significant enough to accept or reject the null hypothesis, the following test was conducted.

Table 177: Ngopa and Lawngtlai EMRS Hostels: Test Statistics

| | Rank scores |
|------------------------|-------------|
| Mann-Whitney U | 705.500 |
| Z | -1.078 |
| Asymp. Sig. (2-tailed) | 0.281 |

Source: Own Calculation, 2024

With a U value of 705.5 and the z-score of -1.078, which is smaller than the critical value of ± 1.96 , and the p-value of 0.281, which is larger than the significance level of 0.05, the null hypothesis can be accepted. This validates that there is an insignificant difference in the quality of hostels between NgopaEMRS and Lawngtlai EMRS.

4.14.19 Overall Ranking of the EMRS Hostels:

Using the result of the hypotheses test (Mann-Whitney U test) we construct the table below to determine which of the school has the best hostel facilities amongst the six EMRS. The parameters were the availabilities of different facilities in the hostels such as toilets, bed, electricity, drinking water, fan, proper drainage, wash room, dining room, hostel mess, ventilation, television, recreational room, sick room, study room, white board, study chairs, nurse, regular health check-ups, first aid, fire extinguishers, prayer room, auditorium, security guard, hostel boundary walls.

Table 178: The Six (6) EMRS Rank in Hostels

| Schools | Front-runner |
|-----------------------|---------------------|
| Tipa vs Chawngte | Chawngte |
| Tipa vs Serchhip | Nil |
| Tipa vs Lunglei | Lunglei |
| Tipa vs Ngopa | Ngopa |
| Tipa vs Lawngtlai | Lawngtlai |
| Chawngte vs Serchhip | Chawngte |
| Chawngte vs Lunglei | Nil |
| Chawngte vs Ngopa | Chawngte |
| Chawngte vs Lawngtlai | Chawngte |
| Serchhip vs Lunglei | Lunglei |
| Serchhip vs Ngopa | Ngopa |
| Serchhip vs Lawngtlai | Lawngtlai |
| Lunglei vs Ngopa | Nil |
| Lunglei vs Lawngtlai | Lunglei |
| Ngopa vs Lawngtlai | Nil |

Source: Field Survey, 2024

The 'nil in the above table denotes the insignificant differences between the paired schools. The overall comparison shows that Chawngte EMRS has the best hostel amenities among the six schools, followed by Lunglei in the second rank, Ngopa and Lawngtlai trailing in the third and Tipa and Serchhip in the fourth rank.

4.15 Overall Ranking of the Six EMRS:

As analyzed in the previous sections, the EMRS were compared based on different parameters from the perspectives of the students, teachers and non-teaching staff. The infrastructures and hostels were also compared by utilizing various indicators related to their availability and management.

As presented in section 4.10 of this chapter, there is an insignificant difference amongst the 6 EMRS from the principals' perspectives. Hence, this perspective was not considered to analyze the overall comparison of the EMRS.

Weights were assigned to each perspective based on their relative importance for the development of the tribal students as below.

| | | |
|--------------------|---|-----|
| Teachers | = | 0.3 |
| Infrastructures | = | 0.3 |
| Students | = | 0.2 |
| Non-Teaching Staff | = | 0.1 |
| Hostels | = | 0.1 |

The overall ranking of these EMRS based on infrastructures, hostels and the perspectives of the students, teachers and non-teaching staff is given below:

Table 179: Overall Ranking of the Six (6) EMRS

| Ranks | Schools | Scores |
|-------|----------------|--------|
| 1 | Chawngte EMRS | 1.5 |
| 2 | Lunglei EMRS | 1.8 |
| 3 | Ngopa | 2.2 |
| 4 | Tipa EMRS | 2.9 |
| 5 | Lawngtlai EMRS | 3.4 |
| 5 | Serchhip EMRS | 3.4 |

Source: Own Calculation, 2024

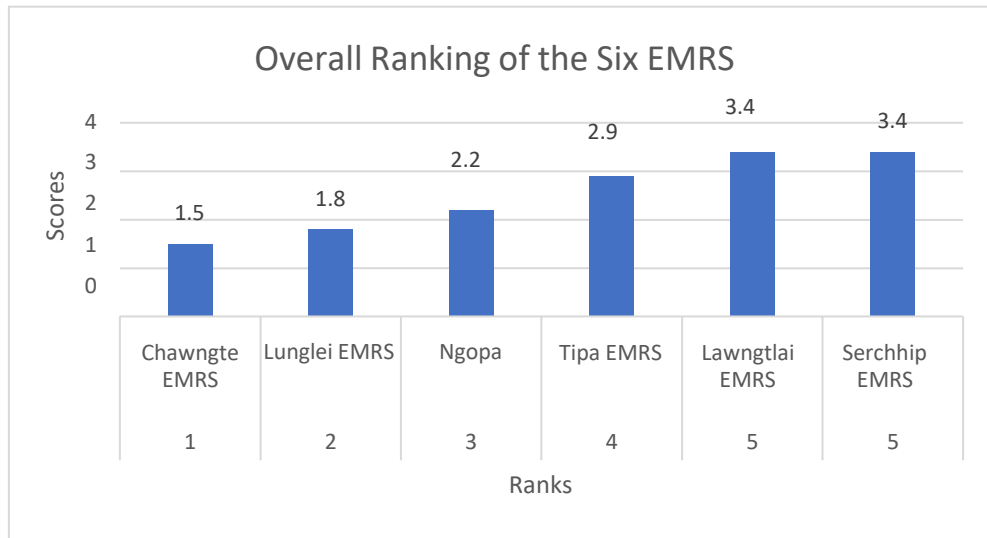


Figure 6: Overall Ranking of the 6 EMRS

The highest rank is given to the lowest scorer because the scores are calculated based on the rankings of the schools in the 5 parameters where a lower ranking indicates a higher performance among the schools. Therefore, out of the six EMRS, Chawngte EMRS ranks the highest, followed by Lunglei EMRS. Ngopa EMRS holds third place, Tipa EMRS is fourth, and Lawngtlai and Serchhip EMRS share the fifth rank.

CHAPTER V

MAJOR FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.0 Major Findings:

5.0.1 Findings on the Profiles of the Principals, Teachers and Staff:

- During the study period, there were six principals in the EMRS of Mizoram. Among them, four were male (66%) and two were female (34%). Four of the principals were over the age of 40, while the remaining two were under 40. All of them had more than 10 years of experience and held educational qualifications above the graduate level.
- The six EMRS under study have a total of 66 teachers. Among them, 38 are male (58%) and 28 are female (42%). All the teachers are under 40 years of age and have less than 10 years of experience. They have all attended the mandatory training programs required for their profession.
- The six EMRS have 62 supporting staff members responsible for the daily functioning of the schools' administration. Of these, 38 are male (61%) and 24 are female (39%). All staff members are under 40 years old and have less than 10 years of experience. In terms of educational qualifications, they are all undergraduates.

5.0.2 Findings on Enrollment, Dropout and Pass out:

- The total number of students across all academic sessions for all the EMRS is 3,330. Ngopa EMRS consistently had the highest enrollment across all three academic sessions, with a total of 780 students. Lunglei EMRS and Serchhip EMRS followed, with 718 and 662 students, respectively. Tipa EMRS, Lawngtlai EMRS and Chawngte EMRS all had an equal overall enrollment of 390 students, ranking the lowest among the schools.

- Tipa and Chawngte EMRS recorded no dropouts' students during the study period. Lawngtlai EMRS faced the most significant challenges in passed out percentages with an average dropped out percentage of 12.67% ranking the highest in dropout rates amongst the EMRS during the study period.
- Tipa EMRS has the highest students passed out percentage among the EMRS with an average percentage of 96.44% while Lawngtlai EMRS has the lowest passed out rates among the EMRS with an average percentage of 83.56% during the study period.

5.0.3 Findings on Comparison of the EMRS from Different Perspectives:

Overall Comparison of the Six (6) EMRS:

Out of the six EMRS, Chawngte EMRS ranks the highest, followed by Lunglei EMRS. Ngopa EMRS holds third place, Tipa EMRS is fourth, and Lawngtlai and Serchhip EMRS share the fifth rank.

5.0.4 School-wise Comparison: Students' Perspectives:

Overall Result:

As per the subjective opinions of the students, Chawngte EMRS is the best school out of the six (6) EMRS with a z-score of 0.9226 and Serchhip EMRS has the poorest performance with a z-score of 0.5903.

Pair-wise Comparison Findings:

- There is a significant difference in the quality of the schools of Chawngte EMRS and Lawngtlai EMRS. Chawngte fare much better than Lawngtlai from the students' perspectives with a significance difference of 31.0957.
- There is a significant difference in the school qualities of Chawngte EMRS and Lunglei EMRS. Chawngte is higher than Lunglei with 25.1798 z-test

significance difference from the perspectives of the students.

- The quality of Chawngte EMRS is much higher than Serchhip from students' viewpoints with a z-score of 34.2577.
- From the students' perspectives, Chawngte EMRS is better than that of Ngopa EMRS, with a significance z-score of 17.03.
- With 28.0109 significance difference, Chawngte EMRS quality is much better than that of Tipa EMRS from the standpoints of the students.
- Consistent with the students, the quality of Lunglei EMRS is higher than that of Lawngtlai EMRS with a significance level of 6.3738 which is greater than the critical value of 1.96.
- Based on the students' responses, Lunglei EMRS is of higher quality than Serchhip EMRS with 10.0185 significance level.
- It can be determined that based on the students' responses, Ngopa EMRS is of higher quality than Lunglei EMRS, with a z-test difference of -8.909 and proportional positive responses difference where Ngopa scored 78% and Lunglei secured 69%.
- Lunglei is better than Tipa EMRS since the calculated z-statistic 3.2 is greater than the critical value and we cannot accept the null hypothesis. But their difference is not as significant as that of the other schools compared with Lunglei.
- According to the students, the quality of Lawngtlai EMRS is higher than that of Serchhip EMRS with a z-test difference of 3.64
- From the perspectives of the students, Ngopa EMRS is better than Lawngtlai with a significant difference of -15.1845.
- In the proportion of positive responses, Tipa secured 66% and Lawngtlai scored 63%. Moreover, the z- significant difference is -3.2037 which is greater than

the critical value of ± 1.96 at 5% significance level. It shows that, Tipa is better than Lawngtlai EMRS in terms of quality from the students' viewpoints.

- Based on the students' responses, Ngopa EMRS is of higher quality than Serchhip EMRS, with a z-test difference of 18.7048.
- Ngopa EMRS is better than Tipa EMRS from the students' viewpoints with 12.0594 z-test difference.
- From the students' perspectives, Tipa EMRS performance is better than that of Serchhip EMRS, with a z-test significant level of -6.819.

5.0.5 School-wise Comparison: Principals' Perceptions:

From the principals' perspectives, there is no significant variation on the functioning of the six EMRS under study since the computed chi-square 1.92 is less than the critical value of 11.07 with 0.05 significance level.

5.0.6 School-wise Comparison: Teachers Perspectives:

Overall Result:

From the teachers' perspectives, Lunglei EMRS and Serchhip EMRS are the best schools among the six EMRS.

Pair-wise Comparison Findings:

- There is no significant difference between Chawngte and Lawngtlai EMRS from the teachers' perspectives as indicated by the z-value (-0.1639) which is less than the critical value of -1.96, and a p-value (0.87288) which is greater than the significance level of 0.05.
- There is a significant difference between Chawngte and Lunglei EMRS

and Lunglei EMRS is better than Chawngte from the teachers' perspectives with a z-value of -5.5508 and a p-value of <0.001.

- With the calculated z-statistic of -5.8796 and the p-value at <0.001, there is a significant variation between Chawngte and Serchhip EMRS according to the teachers and the quality of Serchhip EMRS is higher than that of Chawngte EMRS.
- There is no significant difference between Chawngte and Ngopa EMRS from the teachers' perspectives as indicated by the z-value -0.8066 which is less than the critical value and a p-value of 0.41794 which is greater than the significance level.
- As indicated by the z-value (-0.2459) which is less than the critical value of -1.96, and a p-value (0.80258) which is greater than the significance level of 0.05, there is no significant difference between Chawngte and Tipa EMRS from the teachers' perspectives.
- There is a significant difference between Lunglei and Lawngtlai according to the teachers and the eminence of Lunglei EMRS is higher than that of Lawngtlai EMRS since the calculated z-statistic (6.6087) surpasses the critical value and the p-value is <0.001.
- With a z-value of -0.4106 and a p-value of 0.6818, there is an insignificant difference between Lunglei and Serchhip EMRS from the teachers' perspectives.
- There is a significant difference between Lunglei EMRS and Ngopa EMRS with a z-statistic of 5.6631 and a p-value of <0.001 and Lunglei EMRS exceeds Ngopa EMRS based on the opinions of the teachers.
- There is a significant difference between Lunglei and Tipa according to the teachers and Lunglei EMRS fare better than Tipa EMRS as indicated by the calculated z-statistic (5.5017) which surpasses the critical value with a p-value of <0.001.
- The calculated z-score between Serchhip and Lawngtlai schools is 5.9485,

with a p-value of <0.001 . These results shows that there is a significant variation between the schools and Serchhip EMRS achieves better than Lawngtlai EMRS which is also evident from their proportion of 83% and 66% respectively.

- There is a significant variation between Serchhip and Ngopa with a z- test score of 6.0401 and a p-value of <0.001 . Based on the views of the teachers, Serchhip EMRS performs better than Ngopa EMRS.
- There is a significant difference between Serchhip EMRS and Tipa EMRS with a z-score of 5.8414 which exceeds the critical value with a p-value of <0.001 and Serchhip EMRS is much better than Tipa EMRS from the viewpoints of the teachers.
- There is an insignificant difference between Ngopa and Lawngtlai EMRS from the teachers' perspectives as indicated by the z-value 0.6549 which is less than the critical value of -1.96, and a p-value of 0.5157 which is greater than the significance level.
- Since the calculated z-statistic is 0.5585 and the p-value is 0.57548, there is an insignificant difference between Ngopa and Tipa EMRS from the opinions of the teachers.
- There is an insignificant difference between Lawngtlai and Tipa EMRS from the teachers' perspectives as indicated by the z-value -0.0855 which is less than the critical value of -1.96, and a p-value of 0.92828 at a significance level of 0.05.

5.0.7 School-wise Comparison on Infrastructures:

Overall Result:

Chawngte EMRS has the best infrastructure among the six schools, followed by Lunglei and Ngopa in the second, Tipa trailing in the third. And, Serchhip and Lawngtlai in the last.

Pair-wise Comparison Findings:

- There is a significant difference in infrastructures of Chawngte EMRS and Tipa EMRS which is indicated by their mean rank, where Chawngte is 41.66 and Tipa is 29.41 and the calculated z-score is -3.244 which is greater than the critical value of ± 1.96 and p-value of < 0.001 which is less than the significance level of 0.05. Chawngte EMRS has better infrastructural facilities than Tipa EMRS.
- There is no significant difference between Tipa EMRS and Serchhip EMRS in terms of their infrastructures as indicated by z-score of -1.533 which is less than the critical value of ± 1.96 and p-value of 0.125 which is greater than the significance level of 0.05.
- A z-score of -1.757 and p-value of 0.079 shows that there is an insignificant difference in the quality of infrastructure between Tipa EMRS and Lunglei EMRS.
- As indicated by z-score of -1.147 and p-value of 0.251 there is an insignificant difference in the quality of infrastructure between Tipa EMRS and Ngopa EMRS.
- There is a significant difference in the quality of infrastructure between Tipa EMRS and Lawngtlai EMRS as indicated by the z-score of -2.157 and p-value of 0.031 and Tipa EMRS has better infrastructural amenities than Lawngtlai EMRS.
- As per the z-score of -5.037 and p-value of < 0.001 it can be observed that there is a significant difference in the quality of infrastructure among Chawngte and Serchhip. And, Chawngte EMRS has better infrastructural amenities than Serchhip EMRS.
- As shown by z-score of -1.915 and a p-value of 0.055, there is an insignificant difference in the quality of infrastructure between Chawngte and Lunglei.
- There is a significant difference in the quality of infrastructure between

Chawngte and Ngopa EMRS. Chawngte EMRS has better infrastructural amenities than Ngopa EMRS as indicated by z-score of -2.737 and p-value of 0.006.

- As per the z-score of -5.585 which is greater than the critical value of ± 1.96 and p-value of $< .001$ which is less than the significance level of 0.05, there is a significant difference in the quality of infrastructure between Chawngte and Lawngtlai and Chawngte EMRS has better infrastructural facilities than Lawngtlai EMRS.

- There is a significant difference in the quality of infrastructure between Serchhip and Lunglei EMRS. Lunglei EMRS has better infrastructural amenities than Serchhip EMRS as shown by the z-score of -3.804 and a p-value of $< .001$.

- As indicated by z-score of -3.536 which is greater than the critical value of ± 1.96 and p-value of $< .001$ which is less than the significance level of 0.05, there is a significant difference in the quality of infrastructure and Ngopa EMRS has better infrastructural amenities than Serchhip EMRS.

- There is an insignificant difference in the quality of infrastructure between Serchhip and Lawngtlai EMRS with a z-score of -0.721 and p-value of 0.471.

- The z-score of -0.759 and the p-value of 0.448 shows that there is no significant difference in the quality of infrastructure between Lunglei and Ngopa EMRS.

- As indicated by z-score of -4.444 and p-value of $< .001$, there is a significant difference in the quality of infrastructure and Lunglei EMRS has better infrastructural amenities than Lawngtlai EMRS.

- There is a significant difference in the quality of infrastructure between Ngopa and Lawngtlai. Ngopa EMRS is having better infrastructural amenities than Lawngtlai EMRS as per the z-score of -4.240, which is greater than the critical value of ± 1.96 , and the p-value of $< .001$, which is less than the significance level of 0.05.

5.0.8 School-wise Comparison: Non-Teaching Staff Perspectives:

Overall Result:

In terms of the managements of the 6 EMRS from the perspectives of the non-teaching staff, the overall comparisons shows that Lunglei EMRS outperform every other school, and Tipa EMRS outperforms only Ngopa EMRS. Using these results, it can be determined that Lunglei EMRS secured the 1st rank, Tipa 2nd rank and the other 4 EMRS are in the third rank.

Pair-wise Comparison Findings:

- There is an insignificant difference between Chawngte and Lawngtlai EMRS from the non-teaching staff perspectives as indicates by the z-value (0.3628) which is less than the critical value of -1.96, and a p-value (0.71884) which is larger than the significance level of 0.05.
- There is a significant difference between Chawngte and Lunglei EMRS from the staff perspectives and Lunglei EMRS is better than Chawngte as indicated by the z-value -5.5108 and a p-value <0.001.
- With the calculated z-statistic of 0.7633 and a p-value of 0.44726, there is no significant variation between Chawngte and Serchhip EMRS from the staff perspectives.
- There is an insignificant difference between Chawngte and Ngopa EMRS from the staff perspectives as indicated by the z-value 1.9641 and a p-value of 0.05.
- With a z-value of -0.1379 which is less than the critical value of -1.96, and a p-value of 0.88866 which is greater than the significance level, there is no significant difference between Chawngte and Tipa EMRS from the staff perspectives.
- Since the calculated z-statistic (5.7534) surpasses the critical value of ± 1.96 and the p-value is <0.001 at 5% significance level there is a significant

difference between the two schools and the management of Lunglei EMRS is better than that of Lawngtlai EMRS from the staff perceptions.

- There is a significant difference between Lunglei and Serchhip EMRS from the staff viewpoints and the administration of Lunglei EMRS is better than that of Serchhip EMRS with a z-statistic of 6.3991 and a p-value of <0.001 .
- In the proportions based on the staff perceptions, Lunglei secured 81% and Ngopa recorded 42%, the calculated z-statistic is 7.4864 and the p-value is <0.001 , there is a significant difference between the two schools based on the opinions of the staff and Lunglei EMRS exceeds Ngopa EMRS in their day-to-day managements.
- With a z-score of 5.2393 and a p-value of <0.001 at 5% there is a significant difference between Lunglei and Tipa EMRS based on the assessments of the staff and Lunglei EMRS fare better than Tipa EMRS in their schools' managements.
- The calculated z-score between Serchhip and Lawngtlai EMRS is -0.3714, with a p-value of 0.71138. These results show that there is no significant variation between Serchhip and Lawngtlai EMRS from the staff perspectives.
- There is an insignificant variation between the Serchhip and Ngopa EMRS based on the views of the non-teaching staff since the calculated z-statistic (1.2497) is less than the critical value of ± 1.96 and the p-value is 0.2113 at 5% significance level.
- Since the calculated z-statistic (-0.8827) is less than the critical value of ± 1.96 and the p-value is 0.37886 at 5% significance level, there is no significant difference in the managements of Serchhip and Tipa EMRS from the staff opinions.
- There is an insignificant dissimilarity between Ngopa and Lawngtlai EMRS from the viewpoints of the non-teaching staff since calculated z-statistic is -1.5513 and the p-value is 0.5157 at 5% significance level.

- The calculated z-score (-2.049) is greater than the critical value of ± 1.96 and the p-value 0.04036 is less than the significance level of 0.05 and in the proportion, Ngopa secured 42% and Tipa scored 54%, these outcomes shows that there is a significant difference between Ngopa and Tipa EMRS and Ngopa's management is better than Tipa EMRS from the staff perspectives.
- There is an insignificant difference in the managements of Lawngtlai and TipaEMRS from the non-teaching staff perspectives as indicated by the z-value - 0.488 which is less than the critical value of ± 1.96 , and a p-value of 0.62414 which is greater than the significance level.

5.0.9 Hostel-wise Comparison:

Overall Result:

Chawngte EMRS has the best hostel amenities among the six schools, followed by Lunglei in the second rank, Ngopa and Lawngtlai trailing in the third and Tipa and Serchhip in the fourth rank.

Pair-wise Comparison Findings:

- The U value of 397, z-score of -7.246 and $p < 0.001$ shows that there is a significant difference in the quality of the hostels of Chawngte and Tipa EMRS and Chawngte EMRS Hostels are better than Tipa EMRS.
- With a z-score of -1.834 and p-value of 0.067 there is no significant difference between Tipa EMRS and Serchhip EMRS in terms of their hostel facilities.
- There is a significant difference in the quality of hostels between Tipa EMRS and Lunglei EMRS and Lunglei EMRS has better hostel amenities than Tipa EMRS as indicated by the z-score of -5.828 and p-value of < 0.001 .
- The z-score is -4.865 which is greater than the critical value of ± 1.96 and

p- value is $<.001$ which is less than the significance level of 0.05 shows that there is a significant difference in the quality of the hostels of Tipa and Ngopa and Ngopa EMRS has better residential amenities than Tipa EMRS.

- There is a significant variation in the quality of hostels between Lawngtlai and Tipa schools and Lawngtlai EMRS has better hostel amenities than Tipa EMRS as indicated by the z-score of -4.819 and p-value of $<.001$.

- As shown by the z-score of -6.601 and p-value of $<.001$, there is a substantial difference in the quality of hostels in Chawngte and Serchhip schools and Chawngte EMRS has better residential facilities than Serchhip EMRS.

- As indicated by the z-score of -1.934 and p-value of .053 there is an insignificant difference in the quality of hostels between Chawngte and Lunglei EMRS.

- There is a significant difference in the quality of hostels between Ngopa and Chawngte and Chawngte EMRS has better hostel amenities than Ngopa EMRS with a z-score of -3.055 and p-value of .002.

- The test statistics of z-score -4.130 and the p-value $<.001$ shows that there is a significant difference in the quality of hostels amid Chawngte and Lawngtlai EMRS and Chawngte has better residential facilities than Lawngtlai EMRS.

- The z-score of -5.083 and p-value of $<.001$ shows that there is a significant difference in the quality of hostels among Lunglei and Serchhip EMRS and Lunglei EMRS has better hostel amenities than Serchhip EMRS.

- There is a significant variation in the quality of the hostel facilities of Ngopa and Serchhip and Ngopa EMRS has better residential amenities than Serchhip EMRS as shown by the z-score of -3.995 and p-value of $<.001$.

- The z-score of -3.447 and p-value of $<.001$ shows that there is a significant variation in the quality of hostels between Serchhip and Lawngtlai EMRS

and Lawngtlai EMRS has better hostel facilities than Serchhip EMRS.

- There is insignificant difference in the quality of hostels between Lunglei and Ngopa EMRS as indicated by the z-score of -1.287 and the p-value of 0.198.
- There is a significant difference in the quality of the hostels of Lunglei and Lawngtlai and Lunglei EMRS has better hostel amenities than Lawngtlai EMRS as proved by the z-score of -2.373 and p-value of 0.018.
- The z-score of -1.078 and the p-value of 0.281 validates that there is an insignificant difference in the quality of hostels between Ngopa EMRS and Lawngtlai EMRS.

5.1 Challenges:

- The schools experienced fluctuating dropped out and passed out rates. Some schools have moderate rates while some had slightly higher rates, this indicates academic challenges that need to be addressed to reduce the number of dropouts and also to improve the passed-out rates.
- Although there are regular teachers in the EMRS, they do not receive the standard pay prescribed by the central government for regular employees.
- Students faced various issues related to toilets, dormitories and drainage in the hostels.
- Professional development opportunities for teachers are minimal, they are not equipped with techniques and modern pedagogy strategies to better connect with, manage and teach the students.
- Lack of IT infrastructure posed a major challenge for the students of the EMRS. Students have less access to computer and internet connectivity.

- There are no clear service rules and regulations for teaching and non-teaching staff, leading to a lack of awareness about their rights, duties, and responsibilities.
- Health facilities, health workers, and regular health check-ups for students are insufficient in the EMRS, posing a risk to the overall health of the students.

5.2 Recommendations:

5.2.1 Empirical Based Recommendations:

- Implement targeted intervention programs such as additional tutoring, counseling, and mentorship for students. This could include academic support for struggling students, as well as socio-emotional support to address potential factors leading to high dropout rates. Regular monitoring and feedback sessions with students and parents could help in identifying the issues early.
- To conduct a thorough review to identify the root causes of variabilities in drop outs and pass out rates. The school could benefit from implementing a more consistent academic support framework, focusing on both academic and personal development. Gender-specific programs that address the unique challenges faced by boys and girls could help stabilize retention and performance.
- Though there are regular teachers in the EMRS, they are not enjoying the regular employees' pay as prescribed by the central government. The state government allotted only 14% Dearness Allowance to them. This negatively impacts the overall teachers' development, hindering innovation, inspiration, and motivation. Therefore, it is suggested that these teachers must enjoy their entitlements in terms of their monthly emoluments.

- In order to increase productivity and efficiency, regularly revision of the curriculum to incorporate real-life skills and technological advancements for the students is the need of the hour.
- The EMRSs are located in remote areas, often far from social habitations, making safety and security a major concern. Most EMRSs across the state lack the required number of campus security guards, so priority must be given to recruiting more security personnel.
- The study reveals that hostel facilities in EMRS are facing several challenges. Improvements are needed in dormitories, toiletries, proper drainage, study tables, and office rooms for the wardens.
- The study found that students in all EMRSs were required to make security deposits. Since EMRSs are fully funded schools, students should not be asked for security deposits to meet their basic needs. Their needs should be financed from the school funds.
- Timely and effective professional development opportunities must be created for the teachers. Providing career development opportunities for school teachers to enhance cordial relationship among the teachers and the students will help in developing quality education.
- It must be ensured that the curriculum is diverse and inclusive. By doing so, students will gain a more comprehensive understanding of their environments and enhance their learning abilities which will also foster equality and inclusivity.
- Timely and adequately delivery of textbooks, uniforms and stationery items from the authority is also suggested for the improvement of the EMRS.

- To enhance skills-based learning for the students, various skill development programs such as organizational skills, information literacy, creativity, etc., must be frequented in the EMRS.
- Promoting transparency and accountability between teachers and the principal by creating provisions for the disclosure of the schools funding and creating a range of avenues for all the teachers to access the financial and management data of each school.
- The schools' management can be improved through effective leadership by the principal. It is therefore suggested that the principals must undergo management and administrative trainings to bring about improvements in those activities that foster the provision of education and students learning.
- The EMRS must be provided with better teaching and learning materials. Learning materials can significantly increase learners' achievement by supporting learning and act as a guide for both the teachers and the students.
- To conduct workshops on professional work ethics and tribal sensitization program for the principal and staff to foster mutual respect and understanding, and to address the lack of professionalism among administrators and staff.
- To establish clear service rules and regulations for the teaching and non-teaching staff, to ensure awareness of their rights, duties and responsibilities.
- Since the learning environment has become more dynamic in this digital world, introducing vocational courses in Information Technology (IT) and improve IT infrastructure for the students to fit their evolving needs as modern digital learners is recommended.
- Health facilities and health workers are the major concerns for tribal

children in EMRSs. Thus, regular health check-ups at the school campus; and recruitment of health staff/nurses for each EMRS needs to be ensured by the management.

5.2.2 General Recommendations:

- A decentralized governance structure extending to the school level will enable EMRSs to become key drivers of change. This will empower school leadership in decision-making, allowing principals and teachers to actively ensure equitable education quality.
- Encourage the distribution of leadership to improve management and school practices. By spreading leadership roles across organizational structures, challenges can be better addressed and overall effectiveness enhanced.
- The management system of EMRSs remains isolated from the state's school education structure. Consequently, EMRSs in Mizoram lack educational support. The state government should integrate these EMRSs into their educational structure and provide opportunities for teachers, such as in-service training, tribal sensitization programs, regular monitoring, and supervision of EMRS school progress.
- Various studies on education have been conducted by scholars at universities across the country. It is crucial to fully utilize this information by collecting and analyzing it, comparing the results, and establishing a unified database. This database will aid in formulating school educational policies at both the state and national levels.

5.3 Scope for Further Research:

- A comparative study should be undertaken to examine the governance

system, management, and working of Eklavya Model Residential Schools across the country.

- To have an impact study of the Eklavya Model Residential Schools on the enrolled tribal students between two or more north-eastern states in India.

5.4 Conclusion:

In this study, six Eklavya Model Residential Schools (EMRS) operating in Mizoram during the study period of 2020-23 were analyzed based on several parameters from the perspectives of principals, teachers, students, non-teaching staff, infrastructure and hostel management. The study identified various challenges that need to be addressed to enhance the overall development of these schools and achieve their primary objective of providing and promoting quality education among tribal students. The findings are expected to provide empirical insights for effective policy formulation, contributing to the improvement of not only EMRS but also other types of schools in Mizoram and across India.

APPENDICES:

Appendix-I: TIPA EMRS



Appendix-II: LAWNGTLAI EMRS



Appendix-III: CHAWNGTE EMRS



Appendix-IV: LUNGLEI EMRS



Appendix-V: SERCHHIP EMRS



Appendix-VI: NGOPA EMRS



Appendix-VII: INTERVIEW SCHEDULE FOR THE PRINCIPAL

PART – A

1. Name of the Respondent:
2. Name of the School:
3. Numbers of Teaching staff and non-teaching staff: T: NT:
4. Experience in Years:
5. Qualification:
6. Gender: Male Female Others

PART – B

Kindly read the questions below and please put a tick mark (√) according to your option.

| Sl. | ITEMS | Yes | No |
|-----|--|-----|----|
| 1. | Do you have course content separately for your school? | | |
| 2. | Are there any inclusions of local relevant curriculum? | | |
| 3. | Does your school have an academic calendar? | | |
| 4. | Is your students' daily routine arranged in a systematic order as per the requirement of the students? | | |
| 5. | Do you have sufficient number of teaching and non-teaching staffs? | | |
| 6. | Are you participating in the recruitment process of teaching and non-teaching staff? | | |
| 7. | Are you facing any financial problem to run the school properly? | | |
| 8. | Are you involved in the admission process? | | |
| 9. | Are you permitting teachers for tuition class? | | |

| | | | |
|-----|---|--|--|
| 10. | Have you arranged remedial classes/ extra classes? | | |
| 11. | Have you conducted parent's Teacher meeting? | | |
| 12. | Are you satisfied with the school campus? | | |
| 13. | Have you given opportunity for morning assembly? | | |
| 14. | Are you giving rewards to Meritorious students? | | |
| 15. | Do you practise gender equity? | | |
| 16. | Do you purchase Teaching- Aids? | | |
| 17. | Are you emphasising activity-based learning? | | |
| 18. | Have you allocated enough funds for field trips and projects? | | |
| 19. | Do the teachers check class notes regularly? | | |
| 20. | Does your school conduct assessment or tests frequently? | | |
| 21. | Are you giving opportunity to teaching and non-teaching staff for professional development? | | |
| 22. | Are there separate time slots for students to access computers? | | |
| 23. | Are you allocated funds for participation in school/national level sports meet? | | |
| 24. | Are giving opportunities to students exposed to school-level curricular competitions? | | |
| 25. | Are national and state festivals celebrated in your school? | | |
| 26. | Are there regular interactions between you and the hostel superintendents? | | |

PART C

1. What is the funding procedure? Is the state-level authority directly release the necessary funds to the school or is there any other medium that controls the release of the funds?

.....

2. Is there any other agency that offers financial support and/or regulations? If yes, how do these agencies contribute to the development of EMRS?

.....

.....

3. What difficulties do you face in the effective functioning of EMRS to support quality educational opportunities for the tribal children? Do you think that there is a gap between the provision of the school and its implementation?

.....

.....

.....

4. In your opinion, what is the most crucial action that can be taken by the state/ central government for further improvement of the school?

.....

.....

Appendix-VIII: STUDENTS ENROLLMENT, DROP OUTS AND PASS OUTS

1. Name of the School& Location:
2. Name of the State:

Enrollment during the Study Period:

| No. of Enrollment | | | | | | |
|-------------------|-----------|-------|-----------|-------|-----------|-------|
| Year | | | | | | |
| Class | 2020-2021 | | 2021-2022 | | 2022-2023 | |
| | Boys | Girls | Boys | Girls | Boys | Girls |
| VI | | | | | | |
| VII | | | | | | |
| VIII | | | | | | |
| IX | | | | | | |
| X | | | | | | |
| XI | | | | | | |
| XII | | | | | | |

Numbers of Drop-outs during the Study Period:

| No. of Dropout | | | | | | |
|----------------|-----------|-------|-----------|-------|-----------|-------|
| Year | | | | | | |
| Class | 2020-2021 | | 2021-2022 | | 2022-2023 | |
| | Boys | Girls | Boys | Girls | Boys | Girls |
| VI | | | | | | |
| VII | | | | | | |
| VIII | | | | | | |
| IX | | | | | | |
| X | | | | | | |
| XI | | | | | | |
| XII | | | | | | |

What is/are the main reason (s) for drop outs? (More than 1 option can be selected)

- (a) Financial Problem
- (b) Health related issues
- (c) Family pressure
- (d) Lack of interest in education/ learning
- (e) Child labouring due to family's poor economic condition
- (f) Others.....

....

Numbers of Pass-out Students during the Study Period:

| No. of Dropout | | | | | | |
|----------------|-----------|-------|-----------|-------|-----------|-------|
| Year | | | | | | |
| Class | 2020-2021 | | 2021-2022 | | 2022-2023 | |
| | Boys | Girls | Boys | Girls | Boys | Girls |
| VI | | | | | | |
| VII | | | | | | |
| VIII | | | | | | |
| IX | | | | | | |
| X | | | | | | |
| XI | | | | | | |
| XII | | | | | | |

Appendix-IX: INTERVIEW SCHEDULE FOR STUDENTS

PART – A

1. Name of the Respondent:
2. Name of the School:
3. Class:
4. Male / Female:
5. Age
 - a) 8 – 10 years
 - b) 11 – 13years
 - c) 14 – 16 years
 - d) 17 – 19 years

PART – B

Kindly read every Question carefully and please put a tick mark (√) according to your option.

| Sl. No | ITEMS | Yes | No |
|--------|---|-----|-----|
| 1 | Do you follow NCERT Textbook? | () | () |
| 2 | Do you have periodic class-test? | () | () |
| 3 | Are physical development activities compulsory for all the students? | () | () |
| 4 | Does the school have a playground? | () | () |
| 5 | Does the school have sufficient equipment for students' physical development? | () | () |
| 6 | Are the indoor games conducted in your school? | () | () |
| | Are there any trained teacher for sports activities? | () | () |
| 8 | Are there any special activities for language development? | () | () |
| 9 | Is performance in academic and language development activities considered for students' evaluation? | () | () |

| | | | |
|----|---|-----|-----|
| 10 | Is the subject or the teacher in charge of activities for academic and language development trained for it? | () | () |
| 11 | Is there special period in the time table for these activities? | () | () |
| 12 | Have your school established a language club? | () | () |
| 13 | Does your school conduct essay writing competition? | () | () |
| 14 | Does your school conduct poetry competition? | () | () |
| 15 | Does your school conduct quiz competition? | () | () |
| 16 | Does the school conduct inter- school indoor and outdoor competition? | () | () |
| 17 | Does your school provide a field trip programme? | () | () |
| 18 | Does your school conduct an annual game and sports every year? | () | () |
| 19 | Does your school organise cultural programme? | () | () |

PART – C

| Sl. No | ITEMS | Yes | No |
|--------|---|-----|-----|
| 20 | Are you satisfied with your school building? | () | () |
| 21 | Are the benches, chairs and table in a satisfactory condition? | () | () |
| 22 | Is the blackboard/ whiteboard in the classroom in good condition? | () | () |
| 23 | Does your school have enough chalk/ Board Pen? | () | () |
| 24 | Does your school have Principal room separately? | () | () |
| 25 | Does your school have recreational room or common room? | () | () |
| 26 | Does your school have Bio-metric for Teachers? | () | () |
| 27 | Do you have visitors room separately? | () | () |
| 28 | Do you have School office? | () | () |
| 29 | Does your school have notice board? | () | () |

| | | | |
|----|--|-----|-----|
| 30 | Is your school board notice pasted regularly? | () | () |
| 31 | Are there always writing materials available for the black / white boards? | () | () |
| 32 | Are the school windows in good condition? Is there any leakage when it rain? | () | () |
| 33 | Are the school doors in good condition? Can they be properly close? | () | () |
| 34 | Are the classroom partitions/ walls in good condition? | () | () |
| 35 | Are there fans installed inside your classrooms? | () | () |
| 36 | Is there sufficient lighting in the classroom? | () | () |
| 37 | Is there sufficient lightning in the hallways? | () | () |
| 38 | Are there sufficient lights in toilet? | () | () |
| 39 | Is your school toilet good enough? | () | () |
| 40 | Do you have cleaner in school? | () | () |
| 41 | Does your cleaner clean the school toilet properly? | () | () |
| 42 | Does your cleaner clean hallways? | () | () |
| 43 | Does the student's clean classroom as class duty? | () | () |
| 44 | Are the school have cafeteria / dining facilities/ canteen? If yes, how is the food condition? | () | () |
| 45 | Is the school equipped with the required standard of computer? | () | () |
| 46 | Is the school equipped with projector? | () | () |
| 47 | Does the school have interactive whiteboards? | () | () |
| 48 | Is the school playground in a satisfactory condition? | () | () |
| 49 | Does your school have water filter? | () | () |
| 50 | Does your school have clean drinking water? | () | () |

| | | | |
|----|---|-----|-----|
| 51 | Does your school have entrance gate? | () | () |
| 52 | Does your school have appropriate fencing? | () | () |
| 53 | Are the room well ventilated? | () | () |
| 54 | Are there bookshelf or rack in classroom? | () | () |
| 55 | Does your school have computer for the students? | () | () |
| 56 | Does your school have laboratory? | () | () |
| 57 | Do you have library in your school? | () | () |
| 58 | Do you have dustbin in school? | () | () |
| 59 | Do you have sanitary pads dispensaries? | () | () |
| 60 | If you have sanitary pads dispensaries, is it function it well? | () | () |
| 61 | Do you have school kitchen? | () | () |
| 62 | Does your school have auditorium hall? | () | () |
| 63 | Does your school have microphone in classroom? | () | () |
| 64 | Do you have CCTV in every classroom and hallway? | () | () |
| 65 | Does your school have sign/ name board in every rooms? | () | () |
| 66 | Does your school have fire extinguisher? | () | () |

67. How was the entrance test conducted?

.....

68. Do you avail any scholarship? If yes, What type of Scholarship?

.....

.....

69. After completion of schooling at EMRS, what career opportunity would you pursue?

.....

Appendix-X: INTERVIEW SCHEDULE FOR TEACHERS

PART – A

1. Name of the Respondent:
2. Name of the School:
3. Name of the State:
4. Educational Qualification:
5. Male / Female:
6. Category: General SC ST OBC
7. Age
 - e) 21 – 30 years
 - f) 31 – 40 years
 - g) 41 – 50 years
 - h) 51 – 60 years
8. Working Experience:
 - a) 0-5 Years
 - b) 6-10Years
 - c) Above 10 years
9. Training
 - a) Trained
 - b) Untrained
10. Nature of appointment
 - a) Contractual
 - b) Regular
11. Monthly emoluments
 1. Rs. 20000-30000
 2. Rs. 30000-40000
 3. Rs. 40000-50000
 4. Rs. 50000-60000
 5. Rs. 60000-70000
 6. Rs. 70000-80000
 7. Rs. 80000-90000

PART – B

Kindly read the questions below and please put a tick mark (√) according to your option.

| Sl. No | ITEMS | Yes | No |
|--------|---|-----|-----|
| 1. | Are you using lesson plan while teaching in the class? | () | () |
| 2. | Are you utilizing Teaching Aids to make it easier for Students? | () | () |
| 3. | Are you usually able to finish your course of syllabus on time? | () | () |
| 4. | Are the concerned teachers taking laboratory classes regularly? | () | () |
| 5. | Maintaining student Portfolios and anecdotal records | () | () |
| 6. | Are you satisfied with student results? | () | () |
| 7. | Are you sharing student's results with parents and guardians? | () | () |
| 8. | Do you think the present pattern of examination is appropriate? | () | () |
| 9. | Are you maintaining good relationship with students? | () | () |
| 10. | Are there any counselling session for behavioural problems conducted? | () | () |
| 11. | Are you listening to the grievances of the students? | () | () |
| 12. | Are you interacting with the students for their problems? | () | () |
| 13. | Do you check the assignments you give out diligently? | () | () |
| 14. | Do you give tests on a regular basis as per your time table? | () | () |
| 15. | Are you conducted remedial classes for specific backward | () | () |

| | | | |
|-----|---|-----|-----|
| | students? | | |
| 16. | Is there an after school course class for the outgoing students? | () | () |
| 17. | Do you give tests on a regular basis as per your time table? | () | () |
| 18. | Are you teaching through activity-based method | () | () |
| 19. | Are you teaching as per the time table? | () | () |
| 20. | Is your topic presentation focused and organized? | () | () |
| 21. | Demonstrate/illustrate during teaching | () | () |
| 22. | Encouraging students to ask questions | () | () |
| 23. | Giving academic feedback to students | () | () |
| 24. | Does the curriculum you follow match the needs of the local community? | () | () |
| 25. | Have you ever conducted community awareness programme for EMRS? | () | () |
| 26. | Does the school recruit students as per the criteria laid down for the intended Population? | () | () |
| 27. | Whether the ST students of nearby area are enrolled in EMRS? | () | () |
| 28. | Are you using smart boards while teaching? | () | () |
| 29. | Are you getting salary as per the government norms? | () | () |
| 30. | Are you getting incentives/allowances for extra works? | () | () |
| 31. | Are you getting Employees Provident Fund? | () | () |
| 32. | Does the school provide you any TA/DA for attending professional development programme? | () | () |
| 33. | Are you getting maternity/paternity leave? | () | () |
| 34. | Have you attended any capacity building programme? | () | () |

| | | | |
|-----|---|-----|-----|
| 35. | Does the school provide teaching staff quarters? | () | () |
| 36. | Are you organising co-curricular activities in the school regularly? | () | () |
| 37. | Are you giving group projects? | () | () |
| 38. | Does the school prepare students for activities such as drama, song or cultural activities? | () | () |
| 39. | Does the school celebrate national and state festivals? | () | () |
| 40. | Does the school encourage students to participate in state level or national sports meet? | () | () |
| 41. | Does the school organise field trips/visits/exhibitions? | () | () |
| 42. | Are you conducting any NSS or Scout and Guide Programme? | () | () |
| 43. | Are you giving Self-defence training to students | () | () |
| 44. | Are you giving Training on Vocational and Skill based Education? | () | () |

45. What do you think are the major differences of your school as compared to other types of schools?

.....
.....

46. In your opinion, is there any scope for further improvement of the school management?

.....
.....

Appendix-XI: INTERVIEW SCHEDULE FOR NON-TEACHING STAFF

PART – A

1. Name of the Respondent:
2. Name of the School:
3. Designation:
4. Male / Female:

PART – B

Kindly read the questions carefully and please put a tick mark (√) according to your option.

| Sl. No | ITEMS | Yes | No |
|--------|--|-----|-----|
| 1. | Do you engage in the learning activities of the students? | () | () |
| 2. | Do you participate in the co-curricular activities like Swachh Bharat? | () | () |
| 3. | Do you visit students at night during their study hours? | () | () |
| 4. | Do you receive enough support from the teaching staff in dealing with the students? | () | () |
| 5. | Does the school provide you residential quarters? | () | () |
| 6. | Can a non-teaching staff be a part of the School Welfare Committee? | () | () |
| 7. | Does your institution provide personal development training for non-teaching staff? | () | () |
| 8. | Does the school provide you any TA/Da for attending professional development programme? | () | () |
| 9. | Are you getting maternity/paternity leave? | () | () |
| 10. | Have you contributed in any sort of local community activities like blood donation, tree plantation and social work on behalf of the school? | () | () |

| | | | |
|-----|--|-----|-----|
| 11. | Do you think the school has a friendly environment? | () | () |
| 12. | Have you ever conducted a group work together with the teaching staff? | () | () |
| 13. | Have there been meetings held for the employees of the EMRS as a whole? | () | () |
| 14. | Has there been any help required by the teaching staff or from the principal apart from your duty? | () | () |
| 15. | Do you feel there is discrimination against the non-teaching staff? | () | () |
| 16. | Are you satisfied with your pay as per government provision? | () | () |
| 17. | Are you getting salary as per the government norms? | () | () |

**Appendix-XII: OBSERVATION SCHEDULE FOR SCHOOL
INFRASTRUCTURE**

PART – A

1. Name of the School:
2. Name of the State:
3. Types of Building
 - a) Kacha
 - b) Pucca
 - c) Assam Type

PART – B

Kindly read every question and please put a tick mark (√) according to your option.

| Sl | Items | Available | | | Not Available |
|-----|--|-----------|------------|------|---------------|
| | | Good | Manageable | Poor | |
| 1. | Principal Room | | | | |
| 2. | Staff Common Room | | | | |
| 3. | Office Room | | | | |
| 4. | Classrooms | | | | |
| 5. | Visitor's Room | | | | |
| 6. | Science Laboratories | | | | |
| 7. | Computer Laboratories | | | | |
| 8. | Internet connectivity in the computer room | | | | |
| 9. | Library-cum-reading room | | | | |
| 10. | Availability of books in the library | | | | |
| 11. | Toilet facilities | | | | |
| 12. | Drinking water | | | | |

| | | | | | |
|-----|---|--|--|--|--|
| | Facilities | | | | |
| 13. | School Bus facility | | | | |
| 14. | Emergency Fire exits | | | | |
| 15. | Fire extinguisher | | | | |
| 16. | Indoor stadium | | | | |
| 17. | Playground/ court in the campus | | | | |
| 18. | Fans in the classrooms | | | | |
| 19. | First aid facilities | | | | |
| 20. | Campus security guard | | | | |
| 21. | Store room | | | | |
| 22. | Sports goods | | | | |
| 23. | Learning aids | | | | |
| 24. | Recreational room | | | | |
| 25. | Blackboard/whiteboard | | | | |
| 26. | Condition of tables and chairs | | | | |
| 27. | Well ventilated classrooms | | | | |
| 28. | Presence of nurse | | | | |
| 29. | Teaching staff quarters | | | | |
| 30. | Ramps in the school for the disabled | | | | |
| 31. | Conditions of paths linking the buildings | | | | |
| 32. | Roads connectivity of staff quarters via classrooms | | | | |
| 33. | Campus environment and it's building construction | | | | |

| | | | | | |
|-----|---|--|--|--|--|
| 34. | Conditions of building roof | | | | |
| 35. | Are there any types of facility for the visually impaired students? | | | | |

Appendix-XIII: OBSERVATION SCHEDULE FOR HOSTEL

PART – A

Total Numbers of Hostellers: Boys: Girls:

1. Name of the Respondent:
2. Name of the School:
3. Name of the hostel:
4. Name of the State:
5. No. of rooms:
6. Type of the hostel building:
 - a) Pucca
 - b) Kaccha
 - c) Assam type

PART – B

Kindly read all the questions carefully and please put a tick mark (√) according to your option.

| SL. No | Items | Availability | | Condition | | | Remarks |
|--------|---|--------------|----|-----------|----------------|------|---------|
| | | Yes | No | Good | Manageabl e | Poor | |
| | | | | | | | |
| 1. | Do you ask security deposit for hostel? | | | | | | |
| 2. | Furniture | | | | | | |
| 3. | Dormitories | | | | | | |
| 4. | Beds | | | | | | |
| 5. | Electricity | | | | | | |
| 6. | Fans | | | | | | |
| 7. | Boys washroom | | | | | | |

| | | | | | | | |
|-----|--------------------------------------|--|--|--|--|--|--|
| 8. | Girls' washroom | | | | | | |
| 9. | Sanitary pads in Girl's washroom | | | | | | |
| 10. | Toiletries | | | | | | |
| 11. | Proper drainage | | | | | | |
| 12. | Dining room | | | | | | |
| 13. | Space in dining rooms | | | | | | |
| 14. | Fans | | | | | | |
| 15. | Cutleries | | | | | | |
| 16. | Hostel mess | | | | | | |
| 17. | Vegetarian meals | | | | | | |
| 18. | Non-vegetarian meals | | | | | | |
| 19. | Kitchen Garden | | | | | | |
| 20. | Kitchen pantry/ Store room | | | | | | |
| 21. | Kitchen ventilation | | | | | | |
| 22. | Common room | | | | | | |
| 23. | Recreational room | | | | | | |
| 24. | Television | | | | | | |
| 25. | CCA room | | | | | | |
| 26. | Study rooms | | | | | | |
| 27. | White/ Black board | | | | | | |
| 28. | Study tables and chairs | | | | | | |
| 29. | Sick room/ infirmary | | | | | | |
| 30. | Nurse/ health worker | | | | | | |
| 31. | Regular health check-up for students | | | | | | |
| 32. | First Aid facilities | | | | | | |

| | | | | | | | |
|-----|-----------------------------------|--|--|--|--|--|--|
| 33. | Safety ramps/ rails in the hostel | | | | | | |
| 34. | Fire Extinguishers | | | | | | |
| 35. | Fire safety exits | | | | | | |
| 36. | Prayer room | | | | | | |
| 37. | Auditorium/ Assembly Hall | | | | | | |
| 38. | Security room | | | | | | |
| 39. | Security guard | | | | | | |
| 40. | Hostel boundary wall | | | | | | |

| | | Drinking Water | | Water for bathing and toilet | | | Water Storage Facilities | | | Toilets | | No of toilets |
|--------|-------|----------------|--------------|------------------------------|--------------|----------|--------------------------|--------------|----------|--------------|--|---------------|
| | | Adequate | Not Adequate | Adequate | Not Adequate | Adequate | Adequate | Not Adequate | Adequate | Not Adequate | | |
| Hostel | Boys | | | | | | | | | | | |
| | Girls | | | | | | | | | | | |

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Journal of the Oriental Institute



CERTIFICATE OF PUBLICATION

This is to certify that the article entitled

FUNCTIONING OF EKLAVYA MODEL RESIDENTIAL SCHOOL: A CASE STUDY

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Published in

Journal of the Oriental Institute ; ISSN: 0030-5324

Vol. 73, Issue. 01, No. 03, 2024

**UGC Care Approved, Group I,
Peer Reviewed and Referred Journal**



FUNCTIONING OF EKLAVYA MODEL RESIDENTIAL SCHOOL: A CASE STUDY

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Abstract

The study focused on the functioning and infrastructural amenities in EMRS of Tipa, Mizoram. It encompasses the various management and infrastructural factors which are pre-requisite for a school to function for the welfare of the teachers and students. The study also highlighted the enrollment, dropout and pass out rates of the school under study and the importance of not only recruiting trained teachers but also retention of the teachers to reduce dropout rates of students. Though the school is well equipped in terms of infrastructural facilities, the students have no access to computer and internet connectivity and there is lack of funds for students to participate in non-academic activities. An inference drawn from the study is that the policy makers must revisit the existing guidelines of EMRS for the improvement of the school not only in the study area but also for the country at large.

Keywords: EMRS, Tipa, infrastructure, enrollment, dropout, pass out

INTRODUCTION

Eklavya Model Residential Schools (EMRS) started in the year 1997-98 to impart quality education to ST children in remote areas in order to enable them to avail of opportunities in high and professional educational courses and get employment in various sectors. The schools focus not only on academic education but on the all-round development of the students. Each school has a capacity of 480 students, catering to students from Class VI to XII. Hitherto, grants were given for construction of schools and recurring expenses to the State Governments under Grants under Article 275 (1) of the Constitution. The Ministry of Tribal Affairs launched the scheme of 'Eklavya Model Residential School (EMRS)' for classes VI to XII during 1997-1998 under Article 275(1) of the Indian Constitution on the pattern of Jawahar Navodaya Vidyalaya. Till date, 197 EMRSs have been sanctioned by the Ministry in various parts of the county, out of which, 129 EMRSs are fully functional and the remaining 68 EMRSs are under construction. At present around 8 EMRS are in operational in Mizoram.

In order to give further impetus to EMRS, it has been decided that by the year 2022, every block with more than 50% ST population and at least 20,000 tribal persons, will have an EMRS. Eklavya schools will be on par with Navodaya Vidyalaya and will have special facilities for preserving local art and culture besides providing training in sports and skill development. Across the country, as per census 2011 figures, there are 564 such sub-districts out of which there is an EMRS in 102 sub-districts. Thus, 462 new schools have to be opened by the year 2022. With these, currently Mizoram has 17 EMRS and Lunglei EMRS is the first EMRS established in Mizoram. These 17 EMRS cover all the remote Tribal areas within Mizoram for the development of Tribal Education and their career guidance and development as well.

EMRS has vision of catalyzing socio-economic development of the most underprivileged groups in India i.e. the Scheduled Tribes (STs), in a coordinated and a planned manner considering it as an effective instrument for their holistic empowerment. EMRS has mission for imparting quality education to ST children by establishment of Eklavya Model Residential Schools in order to enable them to avail high and professional educational courses and to get employment in various

sectors. EMRS will ensure them opportunities at par with non-ST populations thereby providing impetus to the overall development of tribal population in the country.

Objectives of EMRS

The objective of EMRS is to provide quality middle and high-level education to Scheduled Tribes (ST) students in remote areas, not only to enable them to avail of reservation in high and professional educational courses and as jobs in government and public and private sectors but also to have access to the best opportunities in education at par with the non-ST population. This would be achieved by:

1. Comprehensive physical, mental and socially relevant development of all students enrolled in each and every EMRS. Students will be empowered to be change agent, beginning in their school, in their homes, in their village and finally in a large context.
2. Focus differentially on the educational support to be made available to those in Standards XI to X, so that their distinctive needs can be met,
3. Support the annual running expenses in a manner that offers reasonable remuneration to the staff and upkeep of the facilities.
4. Support the construction of infrastructure that provides education, physical, environmental and cultural needs of student life.

REVIEW OF RELATED LITERATURE

Majority of the tribal children in Chhattisgarh, Jharkhand and Odisha fight to get access to the schools devoted for them, and those who succeed in receiving access, failed to get quality education. Different agencies and government committees planned various ways for improving access in these schools. (Jojo, 2013). The expansion of spreading education was achieved over time by opening more tribal schools like Ashram Schools, Eklavya Model Residential Schools, building residences for students, but attention was not given on the improvement of tribal education by introducing remedial classes, counselling, and vocational education. These schools failed to deliver impartial quality education as per the requirements of the tribal students. The provisions for the education of tribal children through various schemes and policies have proved to be inadequate in addressing their educational requirements. The running of schools in tribal areas is under serious threats (Jojo, 2013). A study about the condition of education in tribal areas in Maharashtra (CBPS, 2017) cited that there is a need to boost educational opportunities and requirements for the tribal pupils, not only in terms of physical infrastructure or financial provisions but more delicately and inclusively, without disaggregating planning across the states in India. It argues that a systematic and rational approach is the need of the hour to address the poor educational outcomes of the tribal people.

Students' achievements do not reflect their socio-economic background, it mainly depends on their aptitudes and skills. Therefore, an impartial school system is fundamentally one where all the learners can reap their full potentials, regardless of their socio-economic background (Harris et.al, 2019). In schools and society where the level of challenges is intense and the jeopardy to equality of opportunities are quite significant, leading for equality is more than just a theme. Instructional leadership in this setting implies that the heads' efforts should focus on student's academic advancement to improve their outcomes and the importance of refining classroom teachings. (Day, 2016). Educational plans and evaluation of the quality of teachers and their teaching should be transparent. Whereas, Shatzer (2014) highlighted that the formation of the school ethos and vision for improving the quality of education are the need of the hour for the overall alteration of schools towards a philosophy of inclusiveness in

Journal

of the

Oriental Institute

M.S. University of Baroda

ISSN: 0030-5324

education.

Moswela et.al (2019) stated that leadership in school administration is at the apex of a more effective management and plays a pivotal role in managing and supervising the proper working of the school in order to provide better education to the pupils. It is not viable to consider school administration without heads yet gives orders and directs the organization just to keep the organizations to function. They concluded that school headship is the second most vital factor that can influence the students after classroom teaching (Fritz et.al, 2003). Good governance in education denotes the whole academia, administration, and executive systems where the stakeholders must design and implement good practices. Teaching and non-teaching staff must collaborate and interact to come up with new ideas for the smooth function of the schools. Leadership alone will not suffice to create a good work environment (Mythili, 2019). Since authority flows from the school levels to the state government levels, respecting good practices and developments and solid cooperation among the school, district and state will bring about changes in the area which will further have an indirect effect on the people for their welfare. Three indispensable features that define the substance of good governance was mentioned by Bareth (2004). First, the people must be freely and actively participated people in the decision-making process without anyone being discriminated at all the levels of governance systems; secondly, good governance favored the welfare of the people, particularly the vulnerable and socially disadvantaged section of the society, and thirdly, it works to implement positive changes in the society.

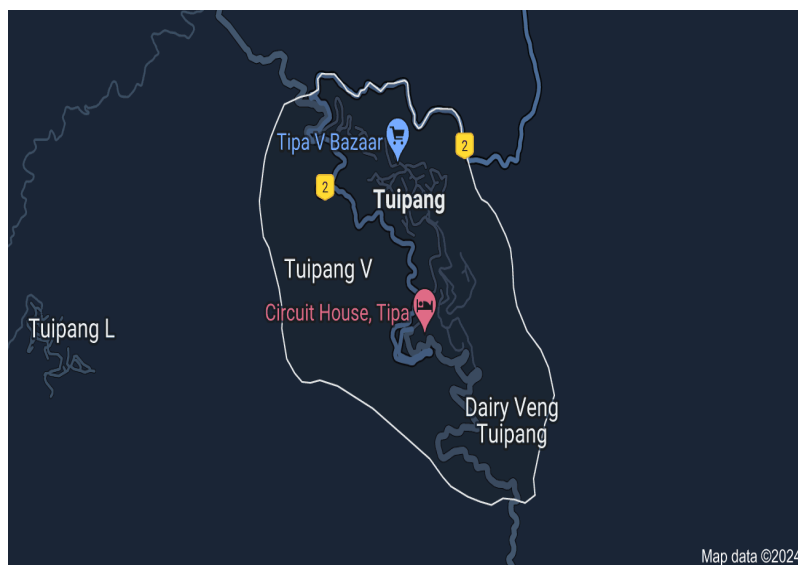
Superfluous emphasis on monetary resources supervision has somehow resulted in overlooking other important factors within the organization that affect the role of leadership at all levels. Very often, the leaders at the district levels lack the required skills to implement plans and supervise the schools. The guidelines of the Central Ministry are being sightlessly followed by the various authorities of the district and local education bureaus, which has resulted in a blurred picture when it comes to the authority and their responsibilities (Chapman, 2000). The primary tasks of the middle levels of the Central Ministry are to inform policy matters and program to schools, provide data and other necessary information from the schools to the ministry while monitoring that these schools are enduring government policies. These middle level lacks authority to decide and acts on the data available. Moreover, inspections of the schools are usually performed by workers who does not possess the necessary qualifications and lack moral ethics. General appointments through simple examinations does little improvements in their work ethics especially if they did not undergo specialized training (Sharma, 2000).

Equality in terms of education is defined as raising the achievement level of all the students while lessening these achievement gaps between the highest and lowest performing pupils and removing ethnic and other disparities that exist amongst them. (Singleton et.al, 2006). The role of the heads significantly affects how delicate their schools are to students for the deprived backgrounds (Stanovich et.al, 1998; Gardiner et.al, 2006). However, there are differences in the opinions of the heads in understanding equality issues in education and the strategies they adopt to make an inclusive environment in their schools.

Majority of the school leaders stated that, they did not undergo equality training during their pre-service training (Gardiner et.al, 2006; Zaretsky et.al, 2008) Another important issue is that principals are expected to create an inclusive work environment while also redefining the responsibilities of their employees. To increase equality among the students, various strategies must be employed by taking into account the cultural background of each student. Principals or heads of the school are directly involved in order to maintain equity among the staff and students so as to enhance a healthy relationship in their schools (Ross

AREA OF THE STUDY

Mizoram is one of the States of North East India, with Aizawl as its capital city. In addition to the existing 8 districts prior to 2019, the Government of Mizoram by notification enabled the functioning of 3 new districts in the year 2019. Accordingly, administrative jurisdiction, notified towns and villages pertaining to these 3 districts had been chalked out. Saiha District is one of the eleven districts of [Mizoram](#) state in [India](#). The district is bounded on the northwest by [Lunglei district](#), on the north and west by [Lawngtlai District](#) and on the south and east by [Myanmar](#). The district occupies an area of 1399.9 km². Saiha town is the administrative headquarters of the Mara Autonomous District Council. Tipa (also known as Tuipang) is a town located in this district and in this town, the EMR school under study is established in the year 2020.



OBJECTIVES OF THE STUDY

1. To examine the status and functioning of Tipa Eklavya Model Residential School.
2. To evaluate the infrastructural facilities available in the school.
3. To analyze the enrollment, drop out and pass out trends during the study period.
4. To suggest measures for strengthening the EMRS program and draw implications for policy makers on the education of tribal children.

RESEARCH QUESTIONS

1. Does the school infrastructure support access to computer and internet connectivity for enhancing students' digital skills?
2. Does the school have recreational facilities for students to enhances their talents other than academic excellence?
3. Does the school practice gender equity in terms of enrollment?
4. What is/are the main push factors for dropouts?

METHODOLOGY

The study is based on primary data. A structured questionnaire was prepared to capture the management, functioning and infrastructural facilities of the EMR school in Tipa for the periods of 2020-2023. Secondary sources were also obtained from various journals, books and other relevant e-resources. The data collected were analyzed using appropriate statistical tools.

RESULTS AND DISCUSSIONS

The role of headship plays a crucial role in the overall development of schools. Next to classroom teaching, it is an equally important factor that can influence students' progress directly and indirectly. Several research studies have drawn a conclusion that for equality viewpoints in general and for the marginalized in particular, school headship plays a pivotal role in enabling the school facilities available to all students to meet their individual levels of learning. On the other hand, the authority's role at all levels also plays an influential part in monitoring schools' tactical directions, executing plans and policies, and giving advices on the various challenges of the schools. The functioning of Tipa school from the perspective of the principal is presented below.

Table 1: Functioning of Tipa EMR School on Selected Indicators-I

| Sl. | ITEMS | Yes | No |
|-----|--|-----|----|
| 1. | Availability of course content separately for the school | | √ |
| 2. | Inclusions of local relevant curriculum | | √ |
| 3. | Availability of school academic calendar | √ | |
| 4. | Students' daily routine is arranged in a systematic order as per the requirement of the students | √ | |
| 5. | Sufficient number of teaching and non-teaching staffs | | √ |
| 6. | Participated in the recruitment process of teaching and non-teaching staff | √ | |
| 7. | Financial problem in running the school properly | | √ |
| 8. | Involved in the admission process of the school | √ | |
| 9. | Teachers are permitted to be engaged for tuition class | | √ |
| 10. | Remedial classes/ extra classes for students | √ | |
| 11. | Parent's Teacher meeting | √ | |
| 12. | Satisfied with the school campus | √ | |
| 13. | Morning assembly for students | √ | |

Source: Field Survey, 2024

As presented in Table 1 above, the school under study did not have a separate course content for their school, they are following the pattern of the Central Board of Secondary Education (CBSE). The local related issues are not included in their curriculum design. The school followed the academic calendar prescribed for them and they prepared the daily routines for each class depending upon the requirement of the students. The principal is involved in the admission process of the students and also played an active role in the recruitments of the teaching and non-teaching staff but the number of teachers and staff are highly inadequate to meet the demand of the students and

the school itself. The funds available for the smooth functioning of the school is rather limited and this factor is the major challenge faced by them. The teachers are not permitted to give tuition to the students over and above the number of teaching hours assigned to them though they are permitted to offer remedial classes. Parents and teachers' interaction are held at regular intervals and students' morning assemblies are conducted every working day.

Table 2: Functioning of Tipa EMR School on Selected Indicators-II

| Sl. | ITEMS | Yes | No |
|-----|---|-----|----|
| 1. | Rewards to Meritorious students | √ | |
| 2. | Practise gender equity | √ | |
| 3. | Purchase of teaching- Aids | √ | |
| 4. | Emphasis on activity-based learning | √ | |
| 5. | Allocated of enough funds for field trips and projects | | √ |
| 6. | Teachers evaluate class notes regularly | √ | |
| 7. | Conduct of assessment or tests frequently | √ | |
| 8. | Opportunity to teaching and non-teaching staff for professional development | √ | |
| 9. | Separate time slots for students to access computers | | √ |
| 10. | Allocated of funds for participation in school/national level sports meet | | √ |
| 11. | Opportunities to students to expose to school-level curricular competitions | √ | |
| 12. | Organising science exhibitions in the school | | √ |
| 13. | National and state festivals celebration | √ | |
| 14. | Are there regular interactions between you and the hostel superintendents? | √ | |

Source: Field Survey, 2024

Rewards to meritorious students is a way to inspire good behaviors and inculcate competitive essence among the students. They are often used to recognize hard work and academic excellence. The EMR school of Tipa is practicing this activity every year and they also teaches and practice gender equity in the school to empowered both boys and girls in promoting equal developments in acquiring life skills. The use of teaching aids can facilitate the learning process of the students by making the process less time consuming and interesting, the school under study often purchased teaching aids that enables the students to use their hearing and seeing abilities thereby improving their learning potentials. As presented in the Table above, the principal stated that though activity-based learning is promoted in the school, the funds availability for students' field trips and projects is rather limited. In view of the importance of field trips and project works in promoting critical thinking and enhancing their observational skills, more funds must be allotted for field trips and projects. The teachers examine the class notes of each student, conduct class tests frequently and the teachers are given the opportunities to enhance their professional development by undergoing various training programmes. Computers are pivotal especially for students to acquire digital skills in the modern world, it is not just an advantage but a necessity for their personal growth and development. But the school does not devote time for students to access computers, this is an important area where there is a scope for improvement of the school. The students do not participate

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in the national or state levels sports meet due to the non-availability of funds for this purpose, they are exposed to school levels curriculum competitions only and they have never conducted science exhibitions in their school. They do observe and celebrates state and national festivals. There is a decent teamwork between the principal and the hostel wardens/ supervisors for the welfare of the students.

Students and parents often ponder upon the infrastructure of the school as one of the main factors when selecting a school for admission. School infrastructure encompasses all the physical units and facilities the school offers. Education exclusively depends on the course design, teachers, and methods of learning, but a mentally motivating, peaceful and reassuring environment also plays a vital role in **students' growth academically**. Good school infrastructure must offer a favorable environment for students to be comfortable, feel safe, and focus on learning by taking into account all the resources and amenities for students. The following Tables 3, 4, and 5 shows the infrastructural facilities of the Tipa EMR School.

Table 3: Infrastructure of the School -I

| S l | Items | Available | | | Not Availab le |
|--------|--|-----------|----------------|----------|----------------------|
| | | Go od | Managea ble | Po or | |
| 1. | Principal Room | √ | | | |
| 2. | Staff Common Room | √ | | | |
| 3. | Office Room | √ | | | |
| 4. | Classrooms | √ | | | |
| 5. | Visitor's Room | | | | √ |
| 6. | Science Laboratories | √ | | | |
| 7. | Computer Laboratories | | | | √ |
| 8. | Internet connectivity in the computer room | | | | √ |
| 9. | Library | √ | | | |
| 10. | Availability of books in the library | √ | | | |

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|-----|---------------------------|---|--|--|--|
| 11. | Toilet facilities | √ | | | |
| 12. | Drinking water Facilities | √ | | | |

Source: Field Survey, 2024

In Table 3, it can be seen that the school have different rooms for the principal, staff, office and science laboratories but not visitors' room. There is lack of computer laboratory and no internet connectivity. The school have a library and it is furnished with books of different kinds for the readings of the students. Toilets and drinking water facilities are in good conditions. It can be stated that since computer laboratories in schools are an indispensable resource to foster students learning and development and develop their technological skills, the school must have such laboratories which will not only prepare them for technical career but also for the digital world we live in. Furthermore, computer laboratories without internet connectivity would be meaningless, it plays a vital role in education as it contains a wealth of knowledge that will help the students to re-learn the curriculum taught in the school and also enable them to access information for their everyday lives.

Table 4: Infrastructure of the School -II

| S l | Items | Available | | | Not Availa ble |
|--------|------------------------|-----------|----------------|----------|----------------------|
| | | Go od | Managea ble | Po or | |
| 1. | School Bus facility | | | | √ |
| 2. | Emergency Fire exits | √ | | | |
| 3. | Fire extinguishers | √ | | | |
| 4. | Indoor stadium | | | | √ |
| 5. | Playground | √ | | | |
| 6. | Fans in the classrooms | √ | | | |
| 7. | First aid facilities | √ | | | |
| 8. | Campus security guard | | | | √ |
| 9. | Store room | √ | | | |

| | | | | | |
|-----|-------------------|---|--|--|---|
| 10. | Sports goods | √ | | | |
| 11. | Learning aids | √ | | | |
| 12. | Recreational room | | | | √ |

Source: Field Survey, 2024

The table above i.e., Table 4 shows that the school under study have no transportation facilities for students. This is acceptable since the school is a residential school and that all the students reside within the campus. The school have fire extinguishers for emergency fire outbreak, they also have a playground for the students to assemble and perform outdoor activities. Fans are fitted in all the classrooms; variety of learning aids are available and they also have a store room where school materials are being stored. At the same time, there is an absence of indoor stadium where students can perform different indoor sports and there is no recreational room for the students and the teachers. The school does not have security personnel for the safety of the school and the students. An inference that can be drawn from Table 4 is that, the school must provide an indoor sport stadium to enable students to relieve themselves from the monotonic academic exercises and enhance their sporting skills and availability of indoor stadium can give a chance to discover talents other than academic excellence. Moreover, the school must provide recreational room for students to enhances their peer-relationships and inter-personal skills. Furthermore, schools are meant to be safe for learning environment, but this might be not possible for the students without security measures put into place. Availability of security guards can offer the school the protection it needs while not interfering with the children's education.

Table 5: Infrastructure of the School -III

| S I | Items | Available | | | Not Avail able |
|--------|---|-----------|----------------|--------------|----------------------|
| | | Go od | Manage able | P oo r | |
| 1. | Blackboard/whiteboard | √ | | | |
| 2. | Condition of tables and chairs | √ | | | |
| 3. | Well-ventilated classrooms | √ | | | |
| 4. | Presence of nurse | √ | | | |
| 5. | Teaching staff quarters | √ | | | |
| 6. | Ramps in the school for the disabled | √ | | | |
| 7. | Conditions of paths linking the buildings | | √ | | |

| | | | | | |
|-----|---|---|---|--|---|
| 8. | Road connectivity of staff quarters via classrooms | | √ | | |
| 9. | Campus environment and it's building construction | √ | | | |
| 10. | Conditions of building roof | √ | | | |
| 11. | Are there any types of facility for the visually impaired students? | | | | √ |

Source: Field Survey, 2024

Table 5 presented that the school's writing boards such as whiteboards and blackboards are in good conditions and that the classrooms are well ventilated. There is a health care provider, a nurse in the school to treat students' ailments during the school hours. The school provided residential quarters for the teaching staff and there are disabled-friendly ramps in the school. The roads that connect the school and the staff quarter are barely manageable, there is a scope for improvement of the road's connectivity within the school campus. The campus itself is environmentally friendly and the roofs of the buildings are in good conditions. Though the school under study is well furnished from different angles, there is no facility for visually impaired children, this parameter alone highlighted the fact that the school is not feasible for visually impaired tribal children. The visually impaired children have the same rights with their counterparts i.e., the non-impaired, the authority of the school must take this matter into account to accommodate the visually impaired children and thereby promoting equity in the functioning of the school.

One of the ripple effects of the stifling competition for education institutes is the growing necessity for schools to enhance their mechanisms for better serving applicant's queries and objections. The debate about the effects of school size has a long history. Larger-school advocates contend that they allow for more varied curriculum and extra-curricular activities. Smaller school promoters argue that large schools allow students to fall through the cracks, whereas small schools promote more personal attention for students. School size is one potential measure of school quality over which policymakers have some control (Gershenson & Langbein, 2015). Numerous studies, reviewed by Andrews et al., 2002; Cotton, 1996 and Leithwood and Jantzi, 2009 have investigated the relationship between school size and academic achievement. Lee, et al., (2000) in their qualitative study of small and large schools, documented that student in small schools reported generally higher levels of support and caring among the members of their school communities. New investigation designates that smaller schools have greater student success, better attendance and contribution in school actions confident interactions between students, instructors and parents. More current studies suggest that small schools are well than large ones, particularly for students with less socio-economic position. There are countless references, conference papers and journal articles illuminating the merits of small schools (Schneider, 2002). (Akerlof & Kranton, 2002) argued that students in small schools' benefit by being better able to identify with the school and

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with each other. Class size is viewed as an enabler of more effective instruction that can improve student learning (Konstantopoulos & Sun, 2014). Based on the evidences of these reviews, the following table for enrollment in Tipa EMRS is formed.

Table 6: Enrollment in Tipa EMRS

| Clas s | 2020-2021 | | 2021-2022 | | 2022-2023 | |
|-------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | Boy s | Girl s | Boy s | Girl s | Boy s | Girl s |
| VI | 15 | 15 | 15 | 15 | 15 | 15 |
| VII | 15 | 15 | 15 | 15 | 15 | 15 |
| VIII | 15 | 15 | 15 | 15 | 15 | 15 |
| IX | 15 | 15 | 15 | 15 | 15 | 15 |
| X | - | - | - | - | 15 | 15 |

Source: Field Survey, 2024

In the above table, it can be seen that since its inception, the school has been enrolling 30 students each in all classes, i.e., class 6 to 9 with 15 boys and 15 girls in every academic year. The total enrollment in 2020-2021 is 120 students, 120 students in 2021-2022 and 150 students in 2022-2023. The enrollment increases in the third year due to the introduction of class 10 in the school. The school is planning to introduce classes 11 to 12 in the near future and this is hope to increase the enrollment rates. The drop outs during the same period under study is presented in Table 7 below.

Table 7: Dropouts in Tipa EMRS

| Clas s | 2020-2021 | | 2021-2022 | | 2022-2023 | |
|-------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | Boy s | Girl s | Boy s | Girl s | Boy s | Girl s |
| VI | - | - | - | - | 1 | 1 |
| VII | - | - | - | - | - | - |
| VIII | - | - | - | - | - | - |
| IX | - | - | - | - | - | - |

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ISSN: 0030-5324

| | | | | | | |
|----------|---|---|---|---|---|---|
| X | - | - | - | - | 4 | - |
|----------|---|---|---|---|---|---|

Source: Field Survey, 2024

From the dropouts table presented above, it can be seen that 2 students dropped out from class 6 in 2023 due to their health conditions. During the academic year of 2022-2023, 4 boys dropped out from class 10. The main reason behind these dropouts is that majority of the qualified teachers left the school for better employment opportunities and the principal hired teachers on temporary basis and the students who have dropped out could not follow the teaching methods of these hired teachers. A conclusion that can be drawn here is that retaining teachers in the EMRS must be looked into and incentives for the teachers must be enhanced. This will come a long way in not only retaining the teachers but also the students.

Table 8: Numbers of Pass Out Students

| Classes | 2020-2021 | | 2021-2022 | | 2022-2023 | |
|-------------|-----------|-------|-----------|-------|-----------|-------|
| | Boys | Girls | Boys | Girls | Boys | Girls |
| VI | 15 | 15 | 15 | 15 | 9 | 7 |
| VII | 15 | 15 | 15 | 15 | 8 | 13 |
| VIII | 15 | 15 | 15 | 15 | 12 | 12 |
| IX | 15 | 15 | 09 | 11 | 12 | 12 |
| X | | | | | 8 | 9 |

Source: Field Survey, 2024

Table 8 shows the number of students who succeeded in each class during the study period. In class 6, all students passed in 2020-2021 and 2021-2022, but in the academic year of 2022-2023, 6 boys and 8 girls failed in this class. In class 7, for the two consecutive years of 2020-2021 and 2021-2022, all students succeeded but in 2022-2023, 7 boys and 2 girls failed. In class 8, in the year 2022-2023, 3 boys and 3 girls were unsuccessful. In class 9, 100 percent succeeded in the first academic year under study, but 6 boys and 4 girls failed in the second academic year and 3 boys and 3 girls were also unsuccessful in the third academic year. 8 boys and 9 girls thrived in the board examination of class 10 in 2022-2023. The main reason behind why some students were unsuccessful is due to the fact that they lack proficiency in English, which hinders their learning capabilities not only in this particular subject but in other subjects as well. A recommendation that can be made here is that, the school must recruit teachers who have skills in enhancing the learning

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ISSN: 0030-5324

potential of the students especially in English language. Even if the school have to hire temporary teachers, let the hired teachers be trained teachers who qualified Central Teacher Eligibility Test (CTET) as far as possible.

CONCLUSION

School infrastructure is one of the pivotal parameters that can enhance students' enrollments to achieve the educational objectives and goals. The provision of infrastructural facilities can create a productive and environmentally friendly campus. The Tipa EMR school have a scope for further improvement in terms of developing their infrastructure and the policy makers must revisit the framework and guidelines of the EMRS in order to facilitate and promote the educational rights of tribal students not only in Mizoram but also in India as a whole.

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ISSN: 0030-5324

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Journal of the School of Language, Literature and Culture Studies

ISSN: 0972-9682

CERTIFICATE OF PUBLICATION

This is to certify that the article entitled

A COMPARATIVE ANALYSIS OF EKLAVYA MODEL RESIDENTIAL SCHOOLS OF TIPA AND CHAWNGTE, MIZORAM

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University Grants Commission

Published in

Journal of the School of Language, Literature and Culture Studies

ISSN 0972-9682 with IF=7.138

Series: 26, Book No. 03 Year: 2024

Double-Blind, Peer Reviewed, UGC CARE Listed Journal



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INTRODUCTION

Education in its general sense is a form of learning in which the knowledge, skills, values, benefits and habits of a group of people are transferred from one generation to the next through storytelling, discussion, teaching, training, or research. Education may also include informal transmission of such information from one human being to another. Education frequently takes place under the guidance of others, but learners may also educate themselves. Any experience that has a formative effect on the way one thinks, feels, or acts may be considered educational.

A right to education has been recognized by some governments. At the global level, Article 13 of the United Nations' 1966 International Covenant on Economic, Social and Cultural Rights recognizes the right of everyone to an education. Although education is compulsory in most places up to a certain age, attendance at school often is not, and a minority of parents choose home-schooling, sometimes with the assistance of modern electronic educational technology (also called e-learning). Education can take place in formal or informal settings.

Genesis of Eklavya Model Residential Schools

Eklavya Model Residential Schools (EMRS) started in the year 1997-98 to impart quality education to ST children in remote areas in order to enable them to avail of opportunities in high and professional educational courses and get employment in various sectors. The schools focus not only on academic education but on the all-round development of the students. Each school has a capacity of 480 students, catering to students from Class VI to XII. Hitherto, grants were given for construction of schools and recurring expenses to the State Governments under Grants under Article 275 (1) of the Constitution. The Ministry of Tribal Affairs launched the scheme of 'Eklavya Model Residential School (EMRS)' for classes VI to XII during 1997-1998 under Article 275(1) of the Indian Constitution on the pattern of Jawahar Navodaya Vidyalaya. Till date, 197 EMRSs have been sanctioned by the Ministry in various parts of the county, out of which, 129 EMRSs are fully functional and the remaining 68 EMRSs are under construction. At present around 8 EMRS are in operational in Mizoram.

In order to give further impetus to EMRS, it has been decided that by the year 2022, every block with more than 50% ST population and at least 20,000 tribal persons, will have an EMRS. Eklavya schools will be on par with Navodaya Vidyalaya and will have special facilities for preserving local art and culture besides providing training in sports and skill development. Across the country, as per census 2011 figures, there are 564 such sub-districts out of which there is an EMRS in 102 sub-districts. Thus, 462 new schools have to be opened by the year 2022. With these, currently Mizoram has 17 EMRS and Lunglei EMRS is the first EMRS established in Mizoram. These 17 EMRS cover all the remote Tribal areas within Mizoram for the development of Tribal Education and their career guidance and development as well.

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EMRS has vision of catalyzing socio-economic development of the most underprivileged groups in India i.e. the Scheduled Tribes (STs), in a coordinated and a planned manner considering it as an effective instrument for their holistic empowerment. EMRS has mission for imparting quality education to ST children by establishment of Eklavya Model Residential Schools in order to enable them to avail high and professional educational courses and to get employment in various sectors. EMRS will ensure them opportunities at par with non-ST populations thereby providing impetus to the overall development of tribal population in the country.

EMRS is one of the most important schools in Mizoram since the objectives and visions of the scheme are different from many existing schools in the State. EMRS contributes many distinct features and role in tribal students and education system in Mizoram. It is therefore necessary to study the work process and progress status of EMRS in Mizoram to know whether it will be beneficial for the society of Mizo.

Since the objective of EMRS is to provide quality middle and high-level education to Scheduled Tribes (ST) students in remote areas, it has great influence in the tribal state like Mizoram. EMRS and its mission also enable tribal students to avail of reservation in high and professional educational courses and as jobs in government and public and private sectors but also to have access to the best opportunities in education at par with the non-ST population. It is really a matter to investigate the development of EMRS so that it will become more and more popular and people also start adapting to it.

Many talented and brilliant students from both the rural and urban children will have the opportunity to study in EMRS if the objectives and their contribution were known. It will help the talented and brilliant tribal students in all the possible way in terms of medical, physical and social development including morality and well-being of the youths. This will enhance their academic performance and achievement in near future. These tribal students can face deprive of quality modern education which can lead to social evils in Tribal Population. However, EMRS will enable the students from rural areas to be able to compete with the urban counterparts' students in an equity manner with equal rights, equal educational opportunity in areas like NEET, JEE, SCC, UPSC, and State Public Service Exams. These will enlighten and provide confidence towards tribal students and the society which will be the most required treasures in a great country like India unity amidst diversity.

In order to give further impetus to EMRS, it has been decided that by the year 2022, every block with more than 50% ST population and at least 20,000 tribal persons, will have an EMRS. Eklavya schools will be on par with Navodaya Vidyalaya and will have special facilities for preserving local art and culture besides providing training in sports and skill development.

Dedicated infrastructure for setting up Centre of Excellence for sports with all related infrastructure (buildings, equipment's etc.) is supported in all EMRS. This Centre of Excellence will have specialized state-of-the-art facilities for one identified individual sport and one group sport in each State.

REVIEW OF LITERATURE

Mahapatra (2010) stated that since education is an important key input for the general development of an individual, a particular focus on different policy frameworks has been accentuated for the educational improvement of the tribal peoples, such as tribal

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sub-plan program, Sarva Siksha Abhiyan, special schooling, etc. However, a huge gap still exists in the educational attainment indicators of this tribe. The different policies give priority only on financial provisions rather than other necessary factors. Less importance has been given to the schooling systems which are responsible for the sluggish educational progress of the tribal communities (Sujatha, 2011). A typical curriculum is being offered to the ST students without considering their diverse differences. The syllabus design is more appropriate for the general population rather than the tribal community. Even teachers from the non-tribal group have shown lesser interests in providing proper academic care as per the learning requirements of the tribal students. These teachers often lack experiences of the tribal cultures and customs, and many of them left their jobs (Mishra, 2008). They failed to see the ground realities of the tribal students and are unable to provide academic support which leads to dissuasion among the tribal children (Mahapatra, 2010). Thus, the non-tribal teachers in tribal schools should undergo training on tribal sensitization, and even the tribal teachers must also undergo an training programmes for the deprived tribal students (Sedwal & Kamat, 2008).

Establishment of Eklavya Model Residential Schools (EMRS) in India since 1997-1998 is an innovative scheme in India to offer quality middle and high school education to commendable tribal students in the tribal areas across the country. Tribals living in the backward areas of the country are deprived of the basic amenities of life, providing education is an important factor that will play a pivotal role in bringing a visible change in their way of living. EMRSs are facing challenges to improve the educational status of the tribals as there is a lack of regular faculty and supporting staff. (Patra, 2018). Teacher working under contractual employment, part time and retired persons are managing the EMRSs with a fixed salary does not contribute much in impartial quality education (Geddiam, 2015). Majority of the teachers appointed in EMRSs are deprived of regular training programmes in order to enhance their knowledge and skills. The per-capita expenditure of children in EMRS per year is quite low to provide quality education as compared to Jawahar Navodaya Vidyalaya (JNV).

Kumar, et.al (2018) stated that tribal students are not attaining the educational accomplishments as expected in these schools. Though the schools are providing the maximum level of facilities and support, but the dropout rate is quite significant and pose a major threat in these schools. The supply of pure drinking water facility is also a primary concern for these schools. As the students are mainly from a deprived community, proper direction and counselling by the teachers and staff are an important issue which must not be ignored. In these schools, the pupils lack interaction with the society and they are less involved when it comes to parent-teachers' interactions. An effective parent-teachers meeting is helpful for cooperation amongst the teachers, pupils and parents. Dash (2018) stated that the academic outcomes of tribal learners in EMRS in Odisha is not satisfactory. The students' average performance of students remains within the range of 30%- 59%. There is lack of sufficient numbers of teachers and the teachers are employed as contractual workers with a low pay scale. This factor reduced the job satisfaction level of the teachers. Furthermore, residential quarters are not provided for the teachers within the school campus. The higher secondary level classes are being manned by guest teachers from other schools as the schools lack qualified PG teachers in these tribals areas. Therefore, qualified teacher, in addition to other academic support are needed for these tribal pupils to improve their academic achievement. It is also found that there is a lack

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of essential support in terms of teaching aids. It is essential to encourage the teachers to teach effectively as per the learning requirements of the tribal pupils.

Biswal et.al (2021) examined the functioning of EMRS in Odisha, in their study they found that infrastructure of the school is regarded to be of utmost importance to increase the enrolment of students, improved infrastructure permits the employees to carry out their duties in the right manner in order to attain the educational goals and purposes. An improved infrastructural facility will help them to developed a more friendly environment in the school campus. The characteristics of infrastructure primarily emphasize how they have proven to be practical and advantageous to individuals. Therefore, infrastructure of the school should be upgraded for the development of the tribal students which will go a long way in enhancing their learning abilities, skill development and personal development.

AREA OF THE STUDY:

Mizoram is one of the States of North East India, with Aizawl as its capital city. In addition to the existing 8 districts prior to 2019, the Government of Mizoram by notification enabled the functioning of 3 new districts in the year 2019. Accordingly, administrative jurisdiction, notified towns and villages pertaining to these 3 districts had been chalked out.

Saiha District is one of the eleven districts of Mizoram state in India. The district is bounded on the northwest by Lunglei district, on the north and west by Lawngtlai District and on the south and east by Myanmar. The district occupies an area of 1399.9 km². Saiha town is the administrative headquarters of the Mara Autonomous District Council. Tipa (also known as Tuipang) is a town located in this district and in this town, the EMR school under study is established in the year 2021.

Lawngtlai District is situated in the southernmost part of the state of Mizoram. It was declared district on 18th September, 1998. It was previously under Chhimtuipui District. It has its distinct feature for housing one of the highest minority population concentrated areas in India in the western belt of the district. The district is cut-off by Lunglei District and Siaha District into two parts. Economically, Lawngtlai district is one of the most backward districts of the state. About 60% of the total population depends on agriculture and allied sector, 37.90% on service sector and 2.4% on secondary sector. Literacy rate of the district is 65.88% is the lowest in the state as per the latest Statistical Handbook of Mizoram 2022. The Lai Autonomous District Council takes up the education sector within the district upto elementary level and in addition to the general subjects taught at other schools, the schools within Lawngtlai District have 'Laica' as a subject upto Middle School (8th standard) to study and better understand the Lai language. The EMRS under study is located in Chawngte, Lawngtlai district. Chawngte is the capital of Chakma District Council with 8829 number of households. The population comprised of 51.77% male and 48.23% female. 98.17% of the population belongs to the Scheduled Tribe (ST).

OBJECTIVES OF THE STUDY

1. To conduct a comparative analysis of the management practices employed in the EMRS of Tipa and Chawngte.
2. To assess the infrastructural amenities provided by both schools with a focus on

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enhancing the educational experience and well-being of the students.

3. To suggest measures for the improvement of the schools for further policy implications.

METHODOLOGY

The study is based on primary data. A structured questionnaire was prepared to capture the management, infrastructural facilities, enrollment, dropouts and passed out of the EMR schools in Tipa and Chawngte for the periods of 2021-2023. To analyse the management/ functioning, 27 indicators were employed and 35 indicators were utilized to examine the infrastructural facilities of the schools. Secondary sources were also obtained from various journals, books and other relevant e-resources. The data collected were analyzed using appropriate statistical tools.

COMPARATIVE ANALYSIS:

The EMRS of Tipa and Chawngte were compared based on several indicators such as the functioning, infrastructure, enrollment, drop outs and pass outs students. The two schools are hypothetical assumed to be the same since they are set up under the same guidelines, however, this study was conducted to analyze whether there exist similarities and variations among the two EMRS.

Functioning of the EMRS:

The position of school leadership plays a pivotal role in the holistic development of educational institutions. Beyond classroom instruction, it holds equal significance in directly and indirectly shaping students' progress. Numerous research studies have underscored the critical importance of school leadership in promoting equality across diverse student demographics, particularly among marginalized groups. Effective school leadership ensures that educational resources and facilities cater to the individual learning needs of all students. Moreover, leadership authority at all levels is instrumental in overseeing strategic directions, implementing policies and initiatives, and providing guidance to address the myriad challenges encountered by schools. Table 1 below presents comparison in the functioning of the schools based on select indicators and the data were obtained from both the principals of EMRS Tipa and Chawngte.

Table 1: Management of the EMR Schools on Selected Indicators-I

| Sl. | INDICATORS | Tipa | | Chawngte | |
|-----|--|------|----|----------|----|
| | | Yes | No | Yes | No |
| 1. | Availability of course content separately for the school | | √ | | √ |
| 2. | Inclusions of local relevant curriculum | | √ | | √ |
| 3. | Availability of school academic calendar | √ | | √ | |
| 4. | Students' daily routine is arranged in a systematic order as per the requirement of the students | √ | | √ | |
| 5. | Sufficient number of teaching and non-teaching staffs | | √ | | √ |
| 6. | Participated in the recruitment process of teaching and non-teaching staff | √ | | | √ |
| 7. | Financial problem in running the school properly | | √ | | √ |
| 8. | Involved in the admission process of the school | √ | | √ | |

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| | | | | | |
|-----|--|---|---|---|---|
| 9. | Teachers are permitted to be engaged for tuition class | | √ | | √ |
| 10. | Remedial classes/ extra classes for students | √ | | √ | |
| 11. | Parent's Teacher meeting | √ | | √ | |
| 12. | Satisfied with the school campus | √ | | | √ |
| 13. | Morning assembly for students | √ | | √ | |

Source: Field Survey, 2024

As presented in Table 1 above, both the schools under study did not have a separate course content for their school, they are following the pattern of the Central Board of Secondary Education (CBSE). The local related issues are not included in their curriculum design. The schools followed the academic calendar prescribed for them and they prepared the daily routines for each class depending upon the requirement of the students. The principal is involved in the admission process of the students and also played an active role in the recruitments of the teaching and non-teaching staff but the number of teachers and staff are highly inadequate to meet the demand of the students and the schools. Both the schools do not face financial problems for smoothly running the schools, this may be attributed to the fact that these EMRS are funded by the Ministry of Tribal Affairs, Government of India. The teachers are not permitted to give tuition to the students over and above the number of teaching hours assigned to them though they are permitted to offer remedial classes. Parents and teachers' interaction are held at regular intervals and students' morning assemblies are conducted every working day. Based on the 13 indicators listed above in Table 1, both the schools are similar in 12 indicators and differed only in 1 indicator. i.e., satisfaction regarding the school campus where Tipa EMRS are satisfied with their campus, Chawngte EMRS is not satisfactory. An inference that can be drawn here is that the EMRS of Chawngte is having a scope for improvement in upgrading their school campus.

The following table, Table. 2 highlights 14 indicators to compare the managements of the two EMRS. The indicators are related to classroom teachings, developing students' abilities, teachers' activities in maintaining quality teachings and others.

Table 2: Management of the EMR Schools on Selected Indicators-II

| Sl. | INDICATORS | Tipa | | Chawngte | |
|-----|---|------|----|----------|----|
| | | Yes | No | Yes | No |
| 1 | Rewards to Meritorious students | √ | | √ | |
| 2 | Practise gender equity | √ | | √ | |
| 3 | Purchase of teaching- Aids | √ | | √ | |
| 4 | Emphasis on activity-based learning | √ | | √ | |
| 5 | Allocated of enough funds for field trips and projects | | √ | √ | |
| 6 | Teachers evaluate class notes regularly | √ | | √ | |
| 7 | Conduct of assessment or tests frequently | √ | | √ | |
| 8 | Opportunity to teaching and non-teaching staff for professional development | √ | | √ | |
| 9 | Separate time slots for students to access computers | | √ | | √ |
| 10 | Allocated of funds for participation in school/national level sports meet | √ | | √ | |
| 11 | Opportunities to students to expose to school-level curricular competitions | √ | | √ | |
| 12 | Organising science exhibitions in the school | | √ | | √ |
| 13 | National and state festivals celebration | √ | | √ | |

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| | | | | | |
|----|--|---|--|---|--|
| 14 | Are there regular interactions between you and the hostel superintendents? | √ | | √ | |
|----|--|---|--|---|--|

Source: Field Survey, 2024

Awards to meritorious students can be great motivators for promoting academic excellence and good behavior. They are often used to recognize hard work and achievements while creating opportunities for students to develop self-confidence and leadership skills. Both the EMRS awarded meritorious students by giving them certificates and other items which will motivate and help them in enhancing their learning abilities. The concept of gender equity recognizes that boys and girls have different needs and that these differences should be identified and addressed in a manner that rectifies the imbalance between the sexes. In the EMR schools of Tipa and Chawngte gender equity is being followed by inculcating fairness and justice in the distribution of benefits and responsibilities between boys and girls. The use of teaching aids can facilitate the learning process of the students by making the process less time consuming and interesting, the schools under study often purchased teaching aids that enables the students to use their hearing and seeing abilities thereby improving their learning potentials. As presented in the Table above, the principal of Tipa EMRS stated that though activity-based learning is promoted in the school, the funds availability for students' field trips and projects is rather limited whereas, the funds allocated for this in EMRS Chawngte is not limited. In view of the importance of field trips and project works in promoting critical thinking and enhancing their observational skills, more funds must be allotted for field trips and projects in the EMRS of Tipa. Teachers in both the schools are carrying out their duties diligently such as conducting tests and evaluating class notes. Moreover, the teachers and staff of these schools are given an opportunity for professional development by letting them undergo various training programs. Though the schools under study are well-equipped with computers and its accessories which are mainly used for running the day-to-day requirements of the schools. However, separate time slots for students to access these computers are not allotted in both the schools. This particular factor shows that despite the fact that Information Technology (IT) subject is a compulsory paper in their curriculum, the students have no access to computer and internet connectivity. A recommendation that can be made here is that both the schools must allot time slots for students as per their IT syllabus with the assistance of their concerned subject teacher. In both the schools, funds are allocated for field trips and national sports meet. Though funds are provided for participation in school level curriculum exhibitions in EMRS Tipa, funds for the same is not allocated in EMRS Chawngte. In EMRS Tipa, opportunities for school level competitions and exhibitions are given to students whereas in EMRS Chawngte, these opportunities are not open for students. Science exhibitions were never conducted in both the schools. National and state levels festivals are both celebrated in the schools. Since EMRS are residential schools, the principals often consulted the hostel wardens in matters relating to the welfare of the hostellers. Based on the above 14 indicators, it can be concluded that both the EMRS are similar in 12 indicators. At the same time, they varied in indicators 5 and 11 i.e., funds allocated for field trips and projects and opportunities given to students for their exposure in school levels curriculum based competitions.

Infrastructure:

When considering which school to enroll in, both students and parents frequently contemplate the quality of the school's infrastructure as a primary consideration. School infrastructure encompasses all the physical structures and facilities that the school provides. While education primarily relies on curriculum design, teachers' expertise, and teaching methods, the environment in which learning takes place also significantly impacts students' academic development. A conducive, tranquil, and supportive atmosphere plays a crucial role in fostering students' academic growth. Therefore, a well-designed school infrastructure should

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create a conducive environment where students feel comfortable, safe, and can concentrate on learning, with ample resources and amenities to support their educational journey.

Table 3: Infrastructure of the Schools-I

| Sl | Indicators | Tipa | | Chawngte | |
|-----|--|------|------|----------|------|
| | | Good | N. A | Good | N. A |
| 1. | Principal Room | √ | | √ | |
| 2. | Staff Common Room | √ | | √ | |
| 3. | Office Room | √ | | √ | |
| 4. | Classrooms | √ | | √ | |
| 5. | Visitor's Room | | √ | √ | |
| 6. | Science Laboratories | √ | | √ | |
| 7. | Computer Laboratories | | √ | √ | |
| 8. | Internet connectivity in the computer room | | √ | √ | |
| 9. | Library | √ | | √ | |
| 10. | Availability of books in the library | √ | | √ | |
| 11. | Toilet facilities | √ | | √ | |
| 12. | Drinking water Facilities | √ | | √ | |

Source: Field Survey, 2024

Upon observation of Table 3, it is evident that the schools are equipped with various rooms designated for the principal, staff, office, and science laboratories, yet notably lacks a visitors' room and absence of a computer laboratory and internet connectivity in EMRS Tipa. However, the presence of a well-furnished library stocked with diverse reading materials for students is commendable. Additionally, the maintenance of toilets and drinking water facilities are satisfactory in both the schools. It is imperative to highlight that computer laboratories are indispensable resources in schools, essential for fostering students' learning and technological skills. Such facilities not only prepare students for technical careers but also for thriving in today's digital world. Moreover, the significance of internet connectivity cannot be overstated. It serves as a gateway to a vast reservoir of knowledge, aiding students in reinforcing curriculum concepts and accessing information vital for their daily lives. Therefore, it is advisable for the EMRS Tipa to consider establishing a computer laboratory with internet connectivity to enrich students' educational experiences and equip them with essential skills for the future. Out of the 12 indicators listed in Table 3, EMRS Tipa and EMRS Chawngte are similar in 9 indicators but EMRS Chawngte fared better in 3 indicators namely, visitors room, computer and internet connectivity.

Table 4: Infrastructure of the Schools -II

| Sl | Indicators | Tipa | | Chawngte | |
|----|---------------------|------|------|----------|------|
| | | Good | N. A | Good | N. A |
| 1. | School Bus facility | | √ | | √ |

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| | | | | | |
|-----|------------------------|---|---|---|---|
| 2. | Emergency Fire exits | √ | | √ | |
| 3. | Fire extinguishers | √ | | √ | |
| 4. | Indoor stadium | | √ | | √ |
| 5. | Playground | √ | | √ | |
| 6. | Fans in the classrooms | √ | | √ | |
| 7. | First aid facilities | √ | | √ | |
| 8. | Campus security guard | | √ | √ | |
| 9. | Store room | √ | | √ | |
| 10. | Sports goods | √ | | √ | |
| 11. | Learning aids | √ | | √ | |
| 12. | Recreational room | | √ | √ | |

Source: Field Survey, 2024

The schools under study do not offer transportation services for students, which is understandable given its residential nature where all students reside on campus. It is commendable that the schools are equipped with fire extinguishers for emergencies and provides a playground for outdoor activities. Additionally, classrooms are fitted with fans, learning aids are readily available, and there's a designated storage room for school materials. However, notable absences include an indoor stadium for indoor sports and a recreational room for both students and teachers in EMRS Tipa. Furthermore, in EMRS Tipa, the lack of security personnel raises concerns regarding the safety of the school and its students whereas EMRS Chawngte is having campus security guard and recreational room for students, faculty and staff. Analysis from Table 4 suggests that the school should prioritize the establishment of an indoor sports stadium to provide students with opportunities to engage in non-academic activities and develop their sporting abilities. Additionally, the presence of an indoor stadium can facilitate the discovery of talents beyond academic excellence. Moreover, the provision of a recreational room would foster peer relationships and interpersonal skills among students of EMRS Tipa. Furthermore, ensuring the safety of the school environment is paramount. Implementing security measures, such as employing security guards, can safeguard the school premises without compromising students' educational experiences. Thus, investing in security personnel can provide the necessary protection while maintaining a conducive learning environment. Out of the 12 indicators, EMRS Chawngte's performance is better than EMRS Tipa in 2 indicators i.e., campus security guard and recreational room.

Table 5: Infrastructure of the School -III

| Sl. No. | Indicators | Tipa | | | Chawngte | |
|---------|--|------|---|------|----------|-----|
| | | Good | M | N. A | Good | N.A |
| 1. | Blackboard/whiteboard | √ | | | √ | |
| 2. | Condition of tables and chairs | √ | | | √ | |
| 3. | Well-ventilated classrooms | √ | | | √ | |
| 4. | Presence of nurse | √ | | | √ | |
| 5. | Teaching staff quarters | √ | | | √ | |
| 6. | Ramps in the school for the disabled | √ | | | √ | |
| 7. | Conditions of paths linking the buildings | | √ | | √ | |
| 8. | Road connectivity of staff quarters via classrooms | | √ | | √ | |

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| | | | | | | |
|-----|---|---|--|---|---|--|
| 9. | Campus environment and it's building construction | √ | | | √ | |
| 10. | Conditions of building roof | √ | | | √ | |
| 11. | Are there any types of facility for the visually impaired students? | | | √ | √ | |

Source: Field Survey, 2024

Where, M= Manageable

The school's writing boards, including whiteboards and blackboards, are well-maintained, and the classrooms are adequately ventilated. A healthcare provider, in the form of a nurse, is available on campus to address students' medical needs during school hours. Additionally, residential quarters are provided for the teaching staff, and disabled-friendly ramps are installed throughout the school premises. However, in EMRS Tipa there is room for improvement in the connectivity of roads within the school campus, as the current conditions are barely manageable. Despite being environmentally friendly and having well-maintained roofs, the EMRS Tipa lacks facilities for visually impaired children. This deficiency underscores the school's inadequacy in accommodating visually impaired tribal children. It is essential to recognize that visually impaired children have the same rights as their non-impaired counterparts. Therefore, school authorities must prioritize accommodating visually impaired students to promote equity within the school's operations. Implementing facilities and resources tailored to the needs of visually impaired students will ensure inclusivity and accessibility, aligning with principles of equity and diversity in education. From the 11 indicators of Table 5, EMRS Chawngte can be seen to execute better infrastructural facilities than the EMRS Tipa in 2 indicators.

Enrollment, Dropout and Pass out of Students:

The intensifying competition among educational institutions has led to a notable ripple effect: the increased demand for schools to improve their methods of addressing applicants' inquiries and concerns. The debate surrounding the impact of school size has a rich history. Advocates of larger schools argue that they offer a broader range of curricular and extracurricular activities. Conversely, supporters of smaller schools contend that larger institutions may overlook individual students, while smaller ones provide a more personalized approach. The size of a school is a significant factor that policymakers can influence, and it serves as a potential indicator of school quality. By carefully considering the implications of school size, policymakers can make informed decisions to ensure that educational institutions are equipped to meet the diverse needs of their students. The following table presented the enrollment of students in both the schools during 2021-2023. Mentioned may be made here that EMRS of Tipa and Chawngte were established in 2021 and the study period for enrollment covers 2021-2023 academic years.

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Table 6: Total Number of Enrollment in the Schools during 2021-2023

| Class | Tipa | | | | Chawngte | | | |
|-------------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|
| | 2021-2022 | | 2022-2023 | | 2021-2022 | | 2022-2023 | |
| | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| VI | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| VII | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| VIII | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| IX | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| X | - | - | 15 | 15 | - | - | 15 | 15 |

Source: Field Survey, 2024

Based on the data provided in the table, it is evident that EMRS Tipa has consistently enrolled 30 students in each class from 6 to 9, comprising 15 boys and 15 girls annually. The total enrollment for the academic years 2021-2022 and 2022-2023 is 240 students. Enrollment in EMRS Chawngte is also the same with Tipa during the study period i.e., 2021-2022 and 2022-2023 academic years. There was a notable increase in enrollment from 120 to 150 students in both the schools in the academic year of 2022-2023 which is attributed to the introduction of class 10 in the school. Class 11 is to be started in the next academic year in both the schools and class 12 by the second academic year i.e., by 2025. The drop outs from both the schools during the same period is presented in Table 7 below.

Table 7: Number of Dropouts during 2021-2023

| Classes | Tipa | | Chawngte | |
|-------------|------|-------|----------|-------|
| | Boys | Girls | Boys | Girls |
| VI | 1 | 1 | - | - |
| VII | - | - | - | - |
| VIII | - | - | - | - |
| IX | - | - | - | - |
| X | 4 | - | - | - |

Source: Field Survey, 2024

The data in the above table indicates that, from EMRS Tipa, two students from class 6 dropped out due to health reasons and four boys dropped out from class 10. The primary reason cited for these four dropouts is the exit of qualified teachers from the school for better job opportunities. Consequently, the principal hired temporary teachers, whose teaching methods were reportedly not suitable for some students, leading to their dropout. During the same period, there are no dropouts from EMRS Chawngte. From this observation, it can be inferred that retaining teachers in the EMRS system is crucial. Enhancing incentives for teachers could be a potential solution to this issue. By offering better incentives, such as improved salaries,

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professional development opportunities, and supportive working environments, schools can enhance teacher retention rates. This, in turn, would positively impact student retention rates and overall academic performance. Therefore, prioritizing measures to retain qualified teachers can significantly contribute to the long-term success of the school and the academic achievement of its students.

Table 8: Passed outs during 2021-2023

| Class | Tipa | | | | Chawngte | | | |
|-------------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|
| | 2021-2022 | | 2022-2023 | | 2021-2022 | | 2022-2023 | |
| | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| VI | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| VII | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| VIII | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| IX | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| X | - | - | 8 | 9 | - | - | 5 | 7 |

Source: Field Survey, 2024

The number of students pass out from schools from different classes is a definitive factor in the academic activity of schools, since grades are reflection of expectations of students' achievements as well as the schools. Table 8 below presented the number of pass out from both the schools during the study period, i.e., two academic years.

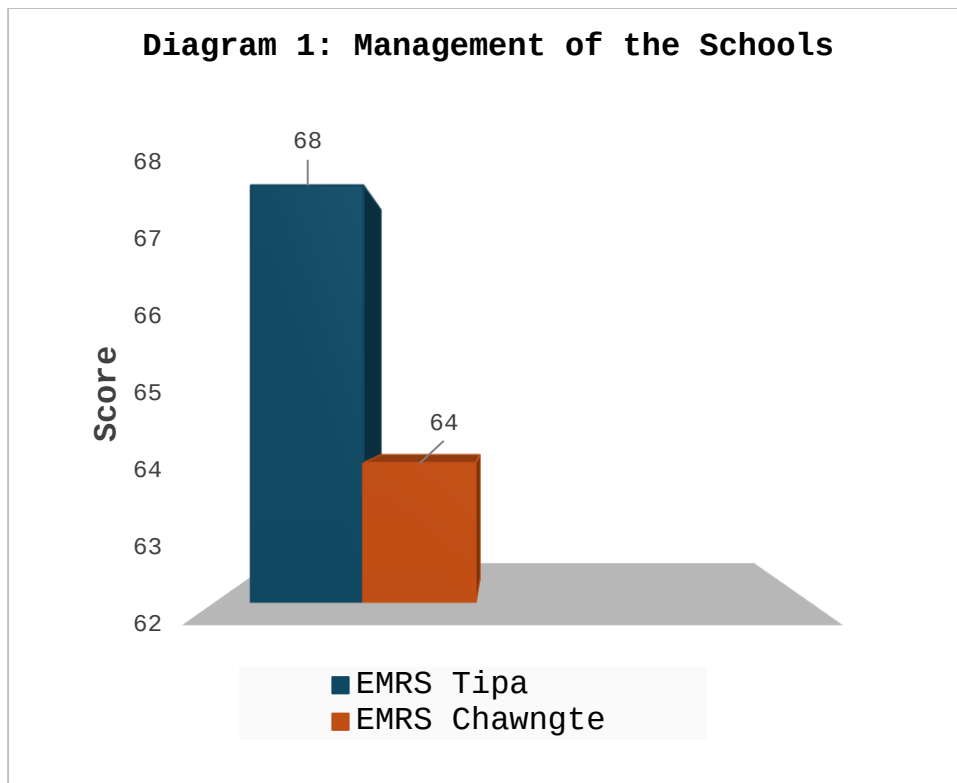
During the entire period of assessment in both the schools, all students from class 6 to 9 succeeded in completing their courses and conceded their grades. However, in EMRS Tipa, out of the 15 boys and 15 girls enrolled in class 10, 8 boys and 9 girls succeeded, i.e., 7 boys and 6 girls failed their examinations. Likewise, in EMRS Chawngte, out of the 15 boys and 15 girls enrolled in class 10, 5 boys and 7 girls passed their examination and 10 boys and 8 girls were unsuccessful. The primary reason for some students' lack of success is their insufficient proficiency in English, which impedes their learning not only in this subject but also in other subjects. One recommendation for the school is to hire teachers who possess skills in improving students' English language abilities. Even if temporary teachers need to be recruited, they should ideally be trained educators who have passed the Central Teacher Eligibility Test (CTET). This would ensure that students receive quality instruction that can enhance their learning potential across various subjects.

Comparison of Management and Infrastructure of the ERMS based on Ordinal Data

Comparison based on ordinal data i.e., 0 and 1 was done between the two EMRS. For management of the schools under study, 25 indicators were selected and fit in a scale of 0 to

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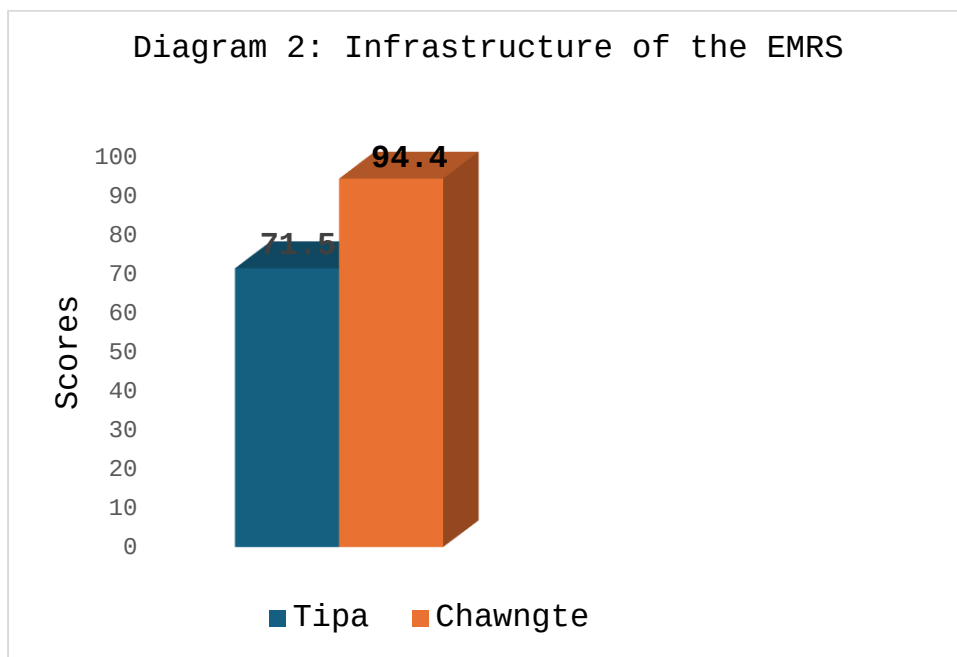
100, then the weight of each indicator is converted to 4 points. The two EMRs were assigned four (4) points in each indicator where their responses were positives and zero (0) where their responses were negatives and the following bar diagram presented their scores.



Based on the scores above, 68 out of 100 for EMRS Tipa and 64 out of 100 for EMRS Chawngte, it appears that EMRS Tipa has a slightly higher score than EMRS Chawngte. However, it is important to note that a score out of 100 may not provide a complete picture of school performance. Other factors can also significantly influence the overall effectiveness of a school. Therefore, while EMRS Tipa may have a slightly higher score, it does not necessarily mean it is performing significantly better than EMRS Chawngte in all aspects of running the administration and daily functioning of the school.

As presented in Tables 3,4 and 5, a total of 35 indicators were utilized to assess the infrastructure of the EMRS. Each indicator was assigned ordinal data values of 0 and 1, which were subsequently scaled to a range of 0 to 100. For positive responses, each indicator was weighted at 2.86 points, while negative responses carried no weight. Consequently, the ensuing diagram depicted the infrastructure scores for both EMRS systems.

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In evaluating the infrastructural facilities of the schools, it is evident that EMRS Chawngte surpasses EMRS Tipa, with a score of 94.4 compared to Tipa's 71.5. Recognizing the crucial role of infrastructure in educational settings, it is advisable for EMRS Tipa to prioritize the development of its school campus and environment. This enhancement is essential not only for the students but also for the well-being and productivity of the teachers and staff.

CONCLUSION:

Based on the comparative study of EMRS above, it can be stated that in the context of inclusive education, equity ensures that every student can access required educational resources and academic rigorousness during the entire span of their formal education, irrespective of their background. Especially, those schools dedicated to the education of tribals need more support on the ground of human resources, expenditures, infrastructures, other relevant resources from the governments or managing bodies to improving school readiness and creating fair, equitable support to meet every need of tribal students. It is urgent to identify barriers to running school activities keeping pace with the students' learning needs to fill in their resource gaps.

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**NATIONAL SEMINAR
ON**

**Sustainable Development in India: Issues and Challenges
(With Special Reference to North East Region)**

25th - 26th May, 2023

Organized by:

DEPARTMENT OF ECONOMICS, MIZORAM UNIVERSITY

Certificate of Participation

This is to certify that Prof./Dr./Mr./Ms./Mrs. A. Lalpianpuia, Research scholar of Education Dept., MZU College/ University has participated and presented a paper entitled

Sustainability of EMRs in Mizoram: An Analysis

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INTERNATIONAL SEMINAR ON ISSUES AND TRENDS IN EDUCATION
ORGANISED BY : IQAC, INSTITUTE OF ADVANCED STUDIES IN EDUCATION

CERTIFICATE



THIS IS TO CERTIFY THAT

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presented a paper on the topic
**'A Comparative Analysis of Eklavya Model
Residential Schools of Tipa and Chawngte, Mizoram'**
on 12th June, 2024 held at the Seminar Hall of
Institute of Advanced Studies in Education, Aizawl, Mizoram.

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| | | |
|------------------------------------|---|------------------------------|
| Date of Admission | : | 28.08.2021 |
| Approval of Research Proposal | | |
| 1. Departmental Research Committee | : | 30.03.2022 |
| 2. Board of Studies | : | 19.05.2022 |
| 3. School Board | : | 10.06.2022 |
| MZU Registration No. | : | 1702969 |
| Ph D Registration No. | : | MZU/Ph.D./1759 of 28.08.2021 |
| Extension | : | Nil |

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ABSTRACT

**EKLAVYA MODEL RESIDENTIAL SCHOOLS IN MIZORAM:
AN ANALYTICAL STUDY**

**AN ABSTRACT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF
PHILOSOPHY**

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MZU REGISTRATION NO.: 1702969

Ph.D. REGISTRATION NO.: MZU/Ph.D./1759 of 28.08.2021



**DEPARTMENT OF
EDUCATION SCHOOL OF
EDUCATION
SEPTEMBER, 2024**

**EKLAVYA MODEL RESIDENTIAL SCHOOLS IN MIZORAM: AN
ANALYTICAL STUDY**

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Submitted
In partial fulfillment of the requirement of the Degree of Doctor of Philosophy
in Education of Mizoram University, Aizawl

INTRODUCTION

Education plays a pivotal role in equipping individuals with the skills necessary for a fulfilling life, making it indispensable for those still marginalized in our society. It is our duty to ensure an inclusive and high-quality education for all, enabling participation in the educational system and fostering success. Education has the potential to empower those in underprivileged, marginalized circumstances, as noted by Dreze and Sen (2003). By providing proper knowledge, skills, and information, quality education can contribute significantly to the holistic development of individuals, families, and societies, as emphasized by Wamboye et al. (2015).

Scheduled Tribes (ST), commonly known as 'Adivasis,' are one such marginalized group, officially recognized as the most educationally disadvantaged community. Given that many tribal communities reside in remote, inaccessible areas, ensuring equitable access to quality education presents a formidable challenge.

Children from various tribal backgrounds require special attention to ensure their holistic development through equitable access to quality education, given their unique social and cultural contexts. Despite efforts from various stakeholders, including the government, educators, leaders, and organizations, significant inequalities persist in educational opportunities for marginalized children, particularly those from tribal communities.

In the realm of inclusive education, equity is paramount, ensuring that all students, regardless of their backgrounds, have access to necessary educational resources and rigorous academic standards throughout their formal education. Establishing a sustainable educational environment centered on equity is crucial for students to acquire the knowledge and skills essential for meaningful participation in society. Schools catering to tribal education, in particular, require additional support in terms of human resources, funding, infrastructure, and other relevant resources to enhance readiness and provide fair, equitable assistance to tribal students. Identifying barriers to school activities and

addressing resource gaps are urgent tasks to meet the learning needs of tribal students effectively.

Recognizing the correlation between quality education and quality of life, the Government of India (GOI) introduced the Eklavya Model School (EMRS) scheme, modeled after the Jawahar Navodaya Vidyalaya (JNV), to provide residential schooling facilities for Scheduled Tribes (STs) students. The EMRS scheme aims to offer quality education to ST students from underprivileged areas, empowering them to benefit from reservations in higher education and secure employment opportunities while also fostering their role as change agents within their communities, as outlined in the EMRS Guidelines (2010).

EKLAVYA MODEL RESIDENTIAL SCHOOLS (EMRS) IN INDIA

Eklavya Model Residential Schools (EMRS) started in the year 1997-98 to impart quality education to ST children in remote areas in order to enable them to avail of opportunities in high and professional educational courses and get employment in various sectors. The schools focus not only on academic education but on the all-round development of the students. EMRS has vision of catalyzing socio-economic development of the most underprivileged groups in India i.e. the Scheduled Tribes (STs), in a coordinated and a planned manner considering it as an effective instrument for their holistic empowerment. EMRS will ensure them opportunities at par with non-ST populations thereby providing impetus to the overall development of tribal population in the country.

REVIEW OF RELATED LITERATURE

A total of 57 literatures related to the area of research were reviewed extensively. They are categorized based on the different issues pertaining to school education, tribal students and quality education as below:

- Challenges for providing quality education for tribal students.
- Quality education and Eklavya Model Residential Schools.

- Challenges for guaranteeing unbiased quality education.
- Management structure and its impact on attaining quality education.
- Inequality in Education and the Role of School headship.

AREA OF THE STUDY

Mizoram is one of the States of North East India, with Aizawl as its capital city. In addition to the existing 8 districts prior to 2019, the Government of Mizoram by notification enabled the functioning of 3 new districts in the year 2019. Accordingly, administrative jurisdiction, notified towns and villages pertaining to these 3 districts had been chalked out and there are now 11 districts in total. The area of the study covers the six (6) EMRS which are located in the districts specified below:

- Tipa EMRS, Siaha District
- Lawngtlai EMRS, Lawngtlai District
- Chawngte EMRS, Lawngtlai District (Under CADC)
- Lunglei EMRS, Lunglei District
- Serchhip EMRS, Serchhip District
- Ngopa EMRS, Saitual District

RATIONALE OF THE STUDY

EMRS is one of the most important schools in Mizoram since the objectives and visions of the scheme are different from many existing schools in the State. EMRS contributes many distinct features and role in tribal students and education system in Mizoram.

Since the objective of EMRS is to provide quality middle and high-level education to Scheduled Tribes (ST) students in remote areas, it has great influence in the tribal state like Mizoram. EMRS and its mission also enable tribal students to avail of reservation in high and professional educational courses and as jobs in government and public and private sectors but also to

have access to the best opportunities in education at par with the non-ST population.

Considering the objectives, schemes, visions and its importance of EMRS, the researcher found no study related to this field in Mizoram. Therefore, a comprehensive research study to discover the structure, functioning and administration of the EMRS in Mizoram is pursued for this research study. Simultaneously, the present study also tries to find out the problems faced by the schools and students. Knowing the problem is not the end of the study, hence, this study endeavors to suggest an effective measure for the best outcomes of EMRS and its impact on Mizoram tribal education and the society.

STATEMENT OF THE PROBLEM

In the context of the above rationale, a structured questionnaire was formed to capture the ground reality of the schools and the title of the study is framed as: **“Ekalavya Model Residential Schools in Mizoram: An Analytical Study”**.

OBJECTIVES OF THE STUDY

1. To examine the profile of the EMRS, focusing on the principal, teachers, non-teaching staff, and students' enrollment, as well as dropout and pass-out rates during the study period.
2. To evaluate the various students' provision accessible at Eklavya Model Residential Schools in Mizoram.
3. To examine the principals' perspectives on the management of the Eklavya Model Residential Schools (EMRS) in Mizoram during the study period.
4. To assess the administrative managements of these EMRS from the teachersand staff perspectives.
5. To evaluate the infrastructural facilities of the Eklavya Model ResidentialSchools under study.
6. To identify the challenges faced by the students and teachers of the EMRS

and to advocate measures to resolve these challenges.

7. To suggest measures for strengthening the EMRS to draw implications for policy making on the education of the tribal children of Mizoram.

NULL HYPOTHESES

1. There is no significant difference in the quality of the schools from the perspectives of the students.
2. There is no significant variation from the principals' perceptions on the functioning of the 6 EMRS under study.
3. There is no significant difference from the teachers' point of views on the administrations of the 6 EMRS during the study period.
4. There is no significant variation in the quality of infrastructures of the 6 EMRS during the study period.
5. There is no significant difference in the management of the schools from the viewpoints of the staff in the 6 EMRS.
6. There is no significant difference in the management of the 6 EMRS hostels.

METHODOLOGY

Research methods encompass a range of techniques used to ensure the accuracy of results. These methods involve theoretical approaches, numerical techniques, experimental procedures, and other relevant data and tools essential for a research study. Not every theory, technique, or piece of information within a research topic is applicable to a specific problem. Therefore, through research methods we must identify and select materials pertinent to our study. The purpose of research methods is to facilitate the collection of relevant information and the validation of this collected data.

Research Approach

A quantitative research methodology was chosen for this study to delve into the complexities of the schooling system in EMRSs, particularly focusing on equitable quality education for tribal children. Quantitative research allows for

a deep understanding of stakeholder interactions and their contextual significance. The study aimed at providing an in-depth analysis of the schooling system from a perspective tailored to the needs of tribal children.

Research Design

The research design employed in this study is descriptive in nature, aiming to characterize the current context or trends of the study variables or phenomena. Descriptive research provides a comprehensive depiction of specific characteristics, values, attitudes, opinions, or behavioral patterns within a population or social system. This design facilitates exploration of the hidden context within the educational research domain, involving extensive fieldwork, observation, and data collection through structured questionnaires.

Population, Sample and Sampling Technique

A population in statistics is the particular population that is the subject of the sought information (Mugenda & Mugenda 2003). A population is a precisely defined collection of individuals, services, objects, events, or homes under investigation. The list of responders used to create the samples is known as the sampling frame. It offers an exhaustive list of every person on the planet (Naoum, 2007).

The population of the study comprised of 6 (six) Eklavya Model Residential Schools; a government initiative aimed at providing quality education to tribal communities. They were purposively selected since they are the only 6 EMRS functioning in the state during the study period. The following table presents the total population of the study.

Table 3: Total Population

| EMRS | No. of Teachers | No. of Non-Teaching Staff | No. of Students in 2023-24 | Principal |
|--------------|------------------------|----------------------------------|-----------------------------------|------------------|
| Tipa | 7 | 9 | 203 | 1 |
| Lawngtlai | 7 | 9 | 210 | 1 |
| Serchhip | 17 | 11 | 270 | 1 |
| Lunglei | 17 | 13 | 210 | 1 |
| Ngopa | 12 | 10 | 270 | 1 |
| Chawngte | 6 | 10 | 270 | 1 |
| Total | 66 | 62 | 1433 | 6 |

Source: Field Survey, 2024

Out of this total population, all the teachers, principals and non-teaching staff were taken as respondents since their strength is not too large. However, random sampling method was applied in case of students since their total population is 1433. Out of the total students' population, a sample size was drawn with 95% confidence level and 5% margin of error. Considering the population size of the study, sample size of the students was calculated using Slovin's formula:

$$n = \frac{N}{(1 + Ne^2)}$$

Where,

n = Required sample size

N= Total population

1= Constant

e= margin of error

Consistent with this formula and considering the total students' population, 352 students are to be selected as respondents which is equivalent to 58.7 students per school, this figure was subsequently rounded up to 60 students for each EMRS i.e., 360 students in total. A structured questionnaire was then distributed to these

randomly selected 60 students in different classes of the six (6) EMRS with a total sample size of 360. Their selection was influenced by the main objective of the study and also on the aspect of trying to get variations in experiences as far as possible. Additionally, information was gathered from all the principals, teachers and non-teaching staff members of these EMRS through questionnaires and observation method was employed for the hostels and infrastructure of the schools. Specifically, data were collected from the randomly selected 360 students, 6 principals, 66 teachers, 62 staff members, 6 hostels and 6 schools' infrastructure. Thus, the overall sample population for the study amounted to 506.

Data Collection Instruments

Primary Data: The study is based mostly on primary data. Structured questionnaires were developed to gather information on governance structures, leadership, and the functioning of EMRSs. Different questionnaires were developed for the principal, teachers, non-teaching staff, infrastructure of the school, students about their school and hostellers about the hostels. Primary documents related to EMRSs, including guidelines and other pertinent information, served as additional data sources.

Secondary Data: An extensive literature review based on the education of tribal students was undertaken to familiarize with the concepts and issues. Secondary data were collected from various publications such as guidelines and information on EMRS published by the Ministry of Tribal Affairs; different districts National Information Centre data for profile of areas of the study and different states' governments Schedule Caste and Schedule Tribe Research Institutes' publications. Other sources of secondary data include journals, textbooks, magazines, newspapers and other e-resources.

Data Collection Procedure

The structured questionnaires were distributed to the respondents across the six (6) EMRSs in Mizoram to capture insights into the equitable provision of quality education for tribal children.

Data Analytical Tools

Quantitative research method relies on methods which develops hard facts and numerical data. It establishes the cause-and-effect relationship between two variables using different statistical, computational, and statistical methods. As the results are accurately and precisely measured, this research method is also termed as “Empirical Research”. This type of research is generally used to establish generalized facts about a particular topic. This type of research is usually done using surveys, experiments, etc. The present study employed parametric and non-parametric tests such as mean differences, z test, Cronbach’s Alpha, Kruskal-Wallis test, Mann-Whitney Utest and Chi Square test for analyzing the data.

FINDINGS

Findings on the Profiles of the Principals, Teachers and Staff

- During the study period, there were six principals in the EMRS of Mizoram. Among them, four were male (66%) and two were female (34%). Four of the principals were over the age of 40, while the remaining two were under 40. All of them had more than 10 years of experience and held educational qualifications above the graduate level.
- The six EMRS under study have a total of 66 teachers. Among them, 38 are male (58%) and 28 are female (42%). All the teachers are under 40 years of age and have less than 10 years of experience. They have all attended the mandatory training programs required for their profession.
- The six EMRS have 62 supporting staff members responsible for the daily functioning of the schools' administration. Of these, 38 are male (61%) and 24 are female (39%). All staff members are under 40 years old and have less than 10 years

of experience. In terms of educational qualifications, they are all undergraduates.

Findings on Enrollment, Dropout and Pass out

- The total number of students across all academic sessions for all the EMRS is 3,330. Ngopa EMRS consistently had the highest enrollment across all three academic sessions, with a total of 780 students. Lunglei EMRS and Serchhip EMRS followed, with 718 and 662 students, respectively. Tipa EMRS, Lawngtlai EMRS and Chawngte EMRS all had an equal overall enrollment of 390 students, ranking the lowest among the schools.
- Tipa and Chawngte EMRS recorded no dropouts' students during the study period. Lawngtlai EMRS faced the most significant challenges in passed out percentages with an average dropped out percentage of 12.67% ranking the highest in dropout rates amongst the EMRS during the study period.
- Tipa EMRS has the highest students passed out percentage among the EMRS with an average percentage of 96.44% while Lawngtlai EMRS has the lowest passed out rates among the EMRS with an average percentage of 83.56% during the study period.

School-wise Comparison: Principals' Perceptions

From the principals' perspectives, there is no significant variation on the functioning of the six EMRS under study since our computed chi-square 1.92 is less than the critical value of 11.07 with 0.05 significance level.

Ranking of the EMRS: Students Perspectives

As per the subjective opinions of the students, Chawngte EMRS is the best school out of the six (6) EMRS and Serchhip EMRS has the poorest performance.

Ranking of the EMRS: Teachers Perspectives

From the teachers' perspectives, Lunglei EMRS and Serchhip EMRS are the best schools among the six (6) EMRS.

Ranking of the EMRS: Staff Perspectives

In terms of the managements of the 6 EMRS from the perspectives of the non-teaching staff, the overall comparisons shows that Lunglei EMRS outperform every other school, and Tipa EMRS outperforms only Ngopa EMRS. Using these results, it can be determined that Lunglei EMRS secured the 1st rank, Tipa 2nd rank and the other 4 EMRS are in the third rank.

Ranking of the EMRS on Infrastructure

Chawngte EMRS has the best infrastructure among the six schools, followed by Lunglei EMRS and Ngopa EMRS in the second, Tipa EMRS trailing in the third. And, Serchhip EMRS and Lawngtlai EMRS in the last.

Ranking of the EMRS on Hostels

Chawngte EMRS has the best hostel amenities among the six schools, followed by Lunglei EMRS in the second rank, Ngopa EMRS and Lawngtlai EMRS trailing in the third and Tipa EMRS and Serchhip EMRS in the fourth rank.

Overall Ranking Comparison of the Six (6) EMRS based on all the Parameters:

Out of the six (6) EMRS, Chawngte EMRS ranks the highest, followed by Lunglei EMRS. Ngopa EMRS holds third place, Tipa EMRS is fourth, and Lawngtlai and Serchhip EMRS share the fifth rank.

School-wise Comparison: Students' Perspectives

Pair-wise Comparison Findings:

- There is a significant difference in the quality of the schools of Chawngte EMRS and Lawngtlai EMRS. Chawngte EMRS fare much better than Lawngtlai EMRS from the students' perspectives with a significance difference of 31.0957.

- There is a significant difference in the school qualities of Chawngte EMRS and Lunglei EMRS. Chawngte EMRS is higher than Lunglei EMRS with 25.1798 z-test significance difference from the perspectives of the students.
- The quality of Chawngte EMRS is much higher than Serchhip EMRS from students' viewpoints with a z-score of 34.2577.
- From the students' perspectives, Chawngte EMRS is better than that of Ngopa EMRS, with a significance z-score of 17.03.
- With 28.0109 significance difference, Chawngte EMRS quality is much better than that of Tipa EMRS from the standpoints of the students.
- Consistent with the students, the quality of Lunglei EMRS is higher than that of Lawngtlai EMRS with a significance level of 6.3738 which is greater than the critical value of 1.96.
- Based on the students' responses, Lunglei EMRS is of higher quality than Serchhip EMRS with 10.0185 significance level.
- It can be determined that based on the students' responses, Ngopa EMRS is of higher quality than Lunglei EMRS, with a z-test difference of -8.909 and proportional positive responses difference where Ngopa EMRS scored 78% and Lunglei EMRS secured 69%.
- Lunglei EMRS is better than Tipa EMRS since the calculated z-statistic 3.2 is greater than the critical value and we cannot accept the null hypothesis. But their difference is not as significant as that of the other schools compared with Lunglei EMRS.
- According to the students, the quality of Lawngtlai EMRS is higher than that of Serchhip EMRS with a z-test difference of 3.64.
- From the perspectives of the students, Ngopa EMRS is better than Lawngtlai EMRS with a significant difference of -15.1845.
- In the proportion of positive responses, Tipa EMRS secured 66% and Lawngtlai EMRS scored 63%. Moreover, the z- significant difference is -3.2037 which is greater than the critical value of ± 1.96 at 5% significance level. It shows that, Tipa EMRS is better than Lawngtlai EMRS in terms of quality from the students' viewpoints.

- Based on the students' responses, Ngopa EMRS is of higher quality than Serchhip EMRS, with a z-test difference of 18.7048.
- Ngopa EMRS is better than Tipa EMRS from the students' viewpoints with 12.0594 z-test difference.
- From the students' perspectives, Tipa EMRS performance is better than that of Serchhip EMRS, with a z-test significant level of -6.819.

School-wise Comparison: Teachers Perspectives.

Pair-wise Comparison Findings:

- There is no significant difference between Chawngte EMRS and Lawngtlai EMRS from the teachers' perspectives as indicated by the z-value (-0.1639) which is less than the critical value of -1.96, and a p-value (0.87288) which is greater than the significance level of 0.05.
- There is a significant difference between Chawngte EMRS and Lunglei EMRS and Lunglei EMRS is better than Chawngte EMRS from the teachers' perspectives with a z-value of -5.5508 and a p-value of <0.001.
- With the calculated z-statistic of -5.8796 and the p-value at <0.001, there is a significant variation between Chawngte EMRS and Serchhip EMRS according to the teachers and the quality of Serchhip EMRS is higher than that of Chawngte EMRS.
- There is no significant difference between Chawngte EMRS and Ngopa EMRS from the teachers' perspectives as indicated by the z-value -0.8066 which is less than the critical value and a p-value of 0.41794 which is greater than the significance level.
- As indicated by the z-value (-0.2459) which is less than the critical value of -1.96, and a p-value (0.80258) which is greater than the significance level of 0.05, there is no significant difference between Chawngte EMRS and Tipa EMRS from the teachers' perspectives.
- There is a significant difference between Lunglei EMRS and Lawngtlai EMRS according to the teachers and the eminence of Lunglei EMRS is higher than

that of Lawngtlai EMRS since the calculated z-statistic (6.6087) surpasses the critical value and the p-value is <0.001 .

- With a z-value of -0.4106 and a p-value of 0.6818, there is an insignificant difference between Lunglei EMRS and Serchhip EMRS from the teachers' perspectives.
- There is a significant difference between Lunglei EMRS and Ngopa EMRS with a z-statistic of 5.6631 and a p-value of <0.001 and Lunglei EMRS exceeds Ngopa EMRS based on the opinions of the teachers.
- There is a significant difference between Lunglei EMRS and Tipa EMRS according to the teachers and Lunglei EMRS fare better than Tipa EMRS as indicated by the calculated z-statistic (5.5017) which surpasses the critical value with a p-value of <0.001 .
- The calculated z-score between Serchhip EMRS and Lawngtlai EMRS schools is 5.9485, with a p-value of <0.001 . These results shows that there is a significant variation between the schools and Serchhip EMRS achieves better than Lawngtlai EMRS which is also evident from their proportion of 83% and 66% respectively.
- There is a significant variation between Serchhip EMRS and Ngopa EMRS with a z- test score of 6.0401 and a p-value of <0.001 . Based on the views of the teachers, Serchhip EMRS performs better than Ngopa EMRS.
- There is a significant difference between Serchhip EMRS and Tipa EMRS with a z-score of 5.8414 which exceeds the critical value with a p-value of <0.001 and Serchhip EMRS is much better than Tipa EMRS from the viewpoints of the teachers.
- There is an insignificant difference between Ngopa EMRS and Lawngtlai EMRS from the teachers' perspectives as indicated by the z-value 0.6549 which is less than the critical value of -1.96, and a p-value of 0.5157 which is greater than the significance level.
- Since the calculated z-statistic is 0.5585 and the p-value is 0.57548, there is an insignificant difference between Ngopa EMRS and Tipa EMRS from the opinions of the teachers.

- There is an insignificant difference between Lawngtlai EMRS and Tipa EMRS from the teachers' perspectives as indicated by the z-value -0.0855 which is less than the critical value of -1.96, and a p-value of 0.92828 at a significance level of 0.05.

School-wise Comparison on Infrastructures

Pair-wise Comparison Findings:

- There is a significant difference in infrastructures of Chawngte EMRS and Tipa EMRS which is indicated by their mean rank, where Chawngte is 41.66 and Tipa is 29.41 and the calculated z-score is -3.244 which is greater than the critical value of ± 1.96 and p-value of < 0.001 which is less than the significance level of 0.05. Chawngte EMRS has better infrastructural facilities than Tipa EMRS.
- There is no significant difference between Tipa EMRS and Serchhip EMRS in terms of their infrastructures as indicated by z-score of -1.533 which is less than the critical value of ± 1.96 and p-value of 0.125 which is greater than the significance level of 0.05.
- A z-score of -1.757 and p-value of 0.079 shows that there is an insignificant difference in the quality of infrastructure between Tipa EMRS and Lunglei EMRS.
- As indicated by z-score of -1.147 and p-value of 0.251 there is an insignificant difference in the quality of infrastructure between Tipa EMRS and Ngopa EMRS.
- There is a significant difference in the quality of infrastructure between Tipa EMRS and Lawngtlai EMRS as indicated by the z-score of -2.157 and p-value of 0.031 and Tipa EMRS has better infrastructural amenities than Lawngtlai EMRS.
- As per the z-score of -5.037 and p-value of < 0.001 it can be observed that there is a significant difference in the quality of infrastructure among Chawngte EMRS and Serchhip EMRS. And, Chawngte EMRS has better infrastructural amenities than Serchhip EMRS.

- As shown by z-score of -1.915 and a p-value of 0.055, there is an insignificant difference in the quality of infrastructure between Chawngte EMRS and Lunglei EMRS.
- There is a significant difference in the quality of infrastructure between Chawngte EMRS and Ngopa EMRS. Chawngte EMRS has better infrastructural amenities than Ngopa EMRS as indicated by z-score of -2.737 and p-value of 0.006.
- As per the z-score of -5.585 which is greater than the critical value of ± 1.96 and p-value of $<.001$ which is less than the significance level of 0.05, there is a significant difference in the quality of infrastructure between Chawngte EMRS and Lawngtlai EMRS and Chawngte EMRS has better infrastructural facilities than Lawngtlai EMRS.
- There is a significant difference in the quality of infrastructure between Serchhip and Lunglei EMRS. Lunglei EMRS has better infrastructural amenities than Serchhip EMRS as shown by the z-score of -3.804 and a p-value of $<.001$.
- As indicated by z-score of -3.536 which is greater than the critical value of ± 1.96 and p-value of $<.001$ which is less than the significance level of 0.05, there is a significant difference in the quality of infrastructure and Ngopa EMRS has better infrastructural amenities than Serchhip EMRS.
- There is an insignificant difference in the quality of infrastructure between Serchhip and Lawngtlai EMRS with a z-score of -0.721 and p-value of 0.471.
- The z-score of -0.759 and the p-value of 0.448 shows that there is no significant difference in the quality of infrastructure between Lunglei and Ngopa EMRS.
- As indicated by z-score of -4.444 and p-value of $<.001$, there is a significant difference in the quality of infrastructure and Lunglei EMRS has better infrastructural amenities than Lawngtlai EMRS.
- There is a significant difference in the quality of infrastructure between Ngopa EMRS and Lawngtlai EMRS. Ngopa EMRS is having better infrastructural amenities than Lawngtlai EMRS as per the z-score of -4.240, which is greater

than the critical value of ± 1.96 , and the p-value of <0.001 , which is less than the significance level of 0.05.

School-wise Comparison: Non-Teaching Staff Perspectives

Pair-wise Comparison Findings:

- There is an insignificant difference between Chawngte EMRS and Lawngtlai EMRS from the non-teaching staff perspectives as indicated by the z-value (0.3628) which is less than the critical value of -1.96, and a p-value (0.71884) which is larger than the significance level of 0.05.
- There is a significant difference between Chawngte EMRS and Lunglei EMRS from the staff perspectives and Lunglei EMRS is better than Chawngte EMRS as indicated by the z-value -5.5108 and a p-value <0.001 .
- With the calculated z-statistic of 0.7633 and a p-value of 0.44726, there is no significant variation between Chawngte EMRS and Serchhip EMRS from the staff perspectives.
- There is an insignificant difference between Chawngte EMRS and Ngopa EMRS from the staff perspectives as indicated by the z-value 1.9641 and a p-value of 0.05.
- With a z-value of -0.1379 which is less than the critical value of -1.96, and a p-value of 0.88866 which is greater than the significance level, there is no significant difference between Chawngte EMRS and Tipa EMRS from the staff perspectives.
- Since the calculated z-statistic (5.7534) surpasses the critical value of ± 1.96 and the p-value is <0.001 at 5% significance level there is a significant difference between the two schools and the management of Lunglei EMRS is better than that of Lawngtlai EMRS from the staff perceptions.
- There is a significant difference between Lunglei EMRS and Serchhip EMRS from the staff viewpoints and the administration of Lunglei EMRS is better than that of Serchhip EMRS with a z-statistic of 6.3991 and a p-value of <0.001 .
- In the proportions based on the staff perceptions, Lunglei EMRS secured 81% and Ngopa EMRS recorded 42%, the calculated z-statistic is 7.4864 and the p-

value is <0.001 , there is a significant difference between the two schools based on the opinions of the staff and Lunglei EMRS exceeds Ngopa EMRS in their day-to-day managements.

- With a z-score of 5.2393 and a p-value of <0.001 at 5% there is a significant difference between Lunglei EMRS and Tipa EMRS based on the assessments of the staff and Lunglei EMRS fare better than Tipa EMRS in their schools' managements.
- The calculated z-score between Serchhip EMRS and Lawngtlai EMRS is -0.3714, with a p-value of 0.71138. These results show that there is no significant variation between Serchhip EMRS and Lawngtlai EMRS from the staff perspectives.
- There is an insignificant variation between the Serchhip EMRS and Ngopa EMRS based on the views of the non-teaching staff since the calculated z-statistic (1.2497) is less than the critical value of ± 1.96 and the p-value is 0.2113 at 5% significance level.
- Since the calculated z-statistic (-0.8827) is less than the critical value of ± 1.96 and the p-value is 0.37886 at 5% significance level, there is no significant difference in the managements of Serchhip EMRS and Tipa EMRS from the staff opinions.
- There is an insignificant dissimilarity between Ngopa EMRS and Lawngtlai EMRS from the viewpoints of the non-teaching staff since calculated z-statistic is -1.5513 and the p-value is 0.5157 at 5% significance level.
- The calculated z-score (-2.049) is greater than the critical value of ± 1.96 and the p-value 0.04036 is less than the significance level of 0.05 and in the proportion, Ngopa EMRS secured 42% and Tipa EMRS scored 54%, these outcomes shows that there is a significant difference between Ngopa EMRS and Tipa EMRS and Ngopa's management is better than Tipa EMRS from the staff perspectives.
- There is an insignificant difference in the managements of Lawngtlai EMRS and Tipa EMRS from the non-teaching staff perspectives as indicated by the z-

value -0.488 which is less than the critical value of ± 1.96 , and a p-value of 0.62414 which is greater than the significance level.

Hostel-wise Comparison:

Pair-wise Comparison Findings:

- The U value of 397, z-score of -7.246 and $p < 0.001$ shows that there is a significant difference in the quality of the hostels of Chawngte EMRS and Tipa EMRS and Chawngte EMRS Hostels are better than Tipa EMRS.
- With a z-score of -1.834 and p-value of 0.067 there is no significant difference between Tipa EMRS and Serchhip EMRS in terms of their hostel facilities.
- There is a significant difference in the quality of hostels between Tipa EMRS and Lunglei EMRS and Lunglei EMRS has better hostel amenities than Tipa EMRS as indicated by the z-score of -5.828 and p-value of < 0.001 .
- The z-score is -4.865 which is greater than the critical value of ± 1.96 and p-value is < 0.001 which is less than the significance level of 0.05 shows that there is a significant difference in the quality of the hostels of Tipa EMRS and Ngopa EMRS and Ngopa EMRS has better residential amenities than Tipa EMRS.
- There is a significant variation in the quality of hostels between Lawngtlai EMRS and Tipa EMRS and Lawngtlai EMRS has better hostel amenities than Tipa EMRS as indicated by the z-score of -4.819 and p-value of < 0.001 .
- As shown by the z-score of -6.601 and p-value of < 0.001 , there is a substantial difference in the quality of hostels in Chawngte EMRS and Serchhip EMRS and Chawngte EMRS has better residential facilities than Serchhip EMRS.
- As indicated by the z-score of -1.934 and p-value of .053 there is an insignificant difference in the quality of hostels between Chawngte EMRS and Lunglei EMRS.
- There is a significant difference in the quality of hostels between Ngopa EMRS and Chawngte EMRS and Chawngte EMRS has better hostel amenities than Ngopa EMRS with a z-score of -3.055 and p-value of .002.

- The test statistics of z-score -4.130 and the p-value <.001 shows that there is a significant difference in the quality of hostels amid Chawngte EMRS and Lawngtlai EMRS and Chawngte EMRS has better residential facilities than Lawngtlai EMRS.
- The z-score of -5.083 and p-value of <.001 shows that there is a significant difference in the quality of hostels among Lunglei EMRS and Serchhip EMRS and Lunglei EMRS has better hostel amenities than Serchhip EMRS.
- There is a significant variation in the quality of the hostel facilities of Ngopa EMRS and Serchhip EMRS and Ngopa EMRS has better residential amenities than Serchhip EMRS as shown by the z-score of -3.995 and p-value of <.001.
- The z-score of -3.447 and p-value of <.001 shows that there is a significant variation in the quality of hostels between Serchhip EMRS and Lawngtlai EMRS and Lawngtlai EMRS has better hostel facilities than Serchhip EMRS.
- There is insignificant difference in the quality of hostels between Lunglei EMRS and Ngopa EMRS as indicated by the z-score of -1.287 and the p-value of 0.198.
- There is a significant difference in the quality of the hostels of Lunglei EMRS and Lawngtlai EMRS and Lunglei EMRS has better hostel amenities than Lawngtlai EMRS as proved by the z-score of -2.373 and p-value of 0.018.
- The z-score of -1.078 and the p-value of 0.281 validates that there is an insignificant difference in the quality of hostels between Ngopa EMRS and Lawngtlai EMRS.

CHALLENGES

- The schools experienced fluctuating dropped out and passed out rates. Some schools have moderate rates while some had slightly higher rates, this indicates academic challenges that need to be addressed to reduce the number of dropouts and also to improve the passed-out rates.
- Although there are regular teachers in the EMRS, they do not receive the standard pay prescribed by the central government for regular employees.

- Students faced various issues related to toilets, dormitories and drainage in the hostels.
- Professional development opportunities for teachers are minimal, they are not equip with techniques and modern pedagogy strategies to better connect with, manage and teach the students.
- Lack of IT infrastructure posed a major challenge for the students of the EMRS. Students have less access to computer and internet connectivity.
- There are no clear service rules and regulations for teaching and non-teaching staff, leading to a lack of awareness about their rights, duties, and responsibilities.
- Health facilities, health workers, and regular health check-ups for students are insufficient in the EMRS, posing a risk to the overall health of the students.

RECOMMENDATIONS

Empirical Based Recommendations:

- Implement targeted intervention programs such as additional tutoring, counseling, and mentorship for students. This could include academic support for struggling students, as well as socio-emotional support to address potential factors leading to high dropout rates. Regular monitoring and feedback sessions with students and parents could help in identifying the issues early.
- To conduct a thorough review to identify the root causes of variabilities in drop outs and pass out rates. The school could benefit from implementing a more consistent academic support framework, focusing on both academic and personal development. Gender-specific programs that address the unique challenges faced by boys and girls could help stabilize retention and performance.
- Though there are regular teachers in the EMRS, they are not enjoying the regular employees' pay as prescribed by the central government. The state government allotted only 14% Dearness Allowance to them. This negatively impacts the overall teachers' development, hindering innovation, inspiration,

and motivation. Therefore, it is suggested that these teachers must enjoy their entitlements in terms of their monthly emoluments.

- In order to increase productivity and efficiency, regularly revision of the curriculum to incorporate real-life skills and technological advancements for the students is the need of the hour.
- The EMRS are located in remote areas, often far from social habitations, making safety and security a major concern. Most EMRSs across the state lack the required number of campus security guards, so priority must be given to recruiting more security personnel.
- The study reveals that hostel facilities in EMRS are facing several challenges. Improvements are needed in dormitories, toiletries, proper drainage, study tables, and office rooms for the wardens
- The study found that students in all EMRS were required to make security deposits. Since EMRS are fully funded schools, students should not be asked for security deposits to meet their basic needs. Their needs should be financed from the school funds.
- Timely and effective professional development opportunities must be created for the teachers. Providing career development opportunities for school teachers to enhance cordial relationship among the teachers and the students will help in developing quality education.
- Timely and adequately delivery of textbooks, uniforms and stationery items from the authority is also suggested for the improvement of the EMRS.
- To enhance skills-based learning for the students, various skill development programs such as organizational skills, information literary, creativity, etc., must be frequented in the EMRS.
- Promoting transparency and accountability between teachers and the principal by creating provisions for the disclosure of the schools funding and creating a range of avenues for all the teachers to access the financial and management data of each school.

- The schools' management can be improved through effective leadership by the principal. It is therefore suggested that the principals must undergo management and administrative trainings to bring about improvements in those activities that foster the provision of education and students learning.
- The EMRS must be provided with better teaching and learning materials. Learning materials can significantly increase learners' achievement by supporting learning and act as a guide for both the teachers and the students.
- To conduct workshops on professional work ethics and tribal sensitization program for the principal and staff to foster mutual respect and understanding, and to address the lack of professionalism among administrators and staff.
- To establish clear service rules and regulations for the teaching and non-teaching staff, to ensure awareness of their rights, duties and responsibilities.
- Since the learning environment has become more dynamic in this digital world, introducing vocational courses in Information Technology (IT) and improve IT infrastructure for the students to fit their evolving needs as modern digital learners is recommended.
- Health facilities and health workers are the major concerns for tribal children in EMRS. Thus, regular health check-ups at the school campus; and recruitment of health staff/nurses for each EMRS needs to be ensured by the management.

General Recommendations:

- A decentralized governance structure extending to the school level will enable EMRSs to become key drivers of change. This will empower school leadership in decision-making, allowing principals and teachers to actively ensure equitable education quality.
- Encourage the distribution of leadership to improve management and school practices. By spreading leadership roles across organizational structures, challenges can be better addressed and overall effectiveness enhanced.
- The management system of EMRS remains isolated from the state's school education structure. Consequently, EMRS in Mizoram lack educational

support. The state government should integrate these EMRS into their educational structure and provide opportunities for teachers, such as in-service training, tribal sensitization programs, regular monitoring, and supervision of EMRS school progress.

- Various studies on education have been conducted by scholars at universities across the country. It is crucial to fully utilize this information by collecting and analyzing it, comparing the results, and establishing a unified database. This database will aid in formulating school educational policies at both the state and national levels.

SCOPE FOR FURTHER RESEARCH

- A comparative study should be undertaken to examine the governance system, management, and working of Eklavya Model Residential Schools across the country.
- To have an impact study of the Eklavya Model Residential Schools on the enrolled tribal students between two or more north-eastern states in India.

CONCLUSION

In this study, six (6) Eklavya Model Residential Schools (EMRS) operating in Mizoram during the study period of 2020-23 were analyzed based on several parameters from the perspectives of principals, teachers, students, non-teaching staff, infrastructure and hostel management. The study identified various challenges that need to be addressed to enhance the overall development of these schools and achieve their primary objective of providing and promoting quality education among tribal students. The findings are expected to provide empirical insights for effective policy formulation, contributing to the improvement of not only EMRS but also other types of schools in Mizoram and across India.

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