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CONTENTS

From the Desk of the Chief Editor

The Mizoram Educational Journal is proud to bring the last issue for the year 2025. The present issue is a compilation of eight articles which are all research based. However, the topics are varied raning from classroom to societal problems faced by students and the society at large while steps have also been suggested to mitigate various educational problems.

David C Lalruatpuia and Lalchawimawii Ngente investigated the influence of parental educational qualifications on the environmental attitudes of secondary school students in Aizawl City, Mizoram. A total of 443 students from government, private, and deficit schools were surveyed. Results revealed significant differences in students' environmental attitudes with respect to both fathers' and mothers' educational qualifications, with students whose parents were graduates or above demonstrating more favourable attitudes than those whose parents had lower educational attainment. These findings support the view that parental education enhances access to knowledge, modelling of eco-friendly behaviours, and intergenerational transmission of values.

Zothangpuii and Grace Kim Khaute teamed up to find out the practices of high school students on risky adolescence behaviour. For the study, a sample of 600 students of the age group 13-18 years and belonging to urban and rural areas in Mizoram was selected. The study revealed that irrespective of their locale a high percentage of high school students still engaged in risky adolescence behaviour.

Lalremruati, F. Zonunmawii and R. Lalthankhumi examined the stress level of pre-school teachers who frequently face high levels of stress and burnout due to factors such as inadequate resources, challenging work environments, and low compensation. Examining these issues can guide the development of policies and practices aimed at enhancing teacher well-being and improving retention rates. The study emphasized the importance of having professionally educated teachers to ensure quality teaching. The findings called for increased support and resources for pre-schools to improve the quality of early childhood education.

Rosy Lalrinsangi studied the perception of college students towards semester system. The current study involved 823 undergraduate college students who were chosen at random from arts, science and commerce undergraduate colleges affiliated to the Mizoram University. The results revealed that with respect to overall perception and all components of semester system except evaluation component, the arts students had a more favourable perception on semester system compared to the science students. Her s also showed that with respect to overall perception and all components of semester system, arts students had a more favourable perception on semester system compared to commerce and science students.

TBC Lalramnghaka and Prateek Chaurasia studied Ethnomathematics, a field that explores the interconnection between cultural practices and mathematical knowledge, offers transformative potential for promoting sustainable mathematics education. This study critically examined how ethnomathematics can enhance sustainable mathematics education by fostering cultural inclusivity, relevance, and continuity of indigenous wisdom. Through exploring cultural contexts, the paper highlighted the importance of culturally responsive pedagogy, linking traditional mathematical practices to classroom learning for deeper comprehension and sustainability.

K.C. Lalchhandami and C. Devendiran studied the challenges brought by The COVID-19 pandemic and the major public health crisis that affected education, family life, and the mental health of young people. This article explored these challenges through five case studies of college students in Aizawl, India. The studies showed that stressors such as family conflict, crowded homes, pre-existing mental health issues, substance use in the household, and poverty increased risks of anxiety, insomnia, low mood, and disengagement from studies.

Vanlalfeli wrote about the user engagement practices by the government recognised Non-Governmental Organization (NGO) libraries of Aizawl city. The findings of the study discovered that the majority of them lack a librarian, rarely conduct feedback surveys and do not provide staff training for user interaction. Among the various ways users have contributed to the enhancement of library services, orientation programs rank top among the categories. The study suggests that all the libraries should receive consistent funding, recruit professional librarians or library staff and more training sessions and conclude that there needs to be more development in different aspects for more engaged users.

Durgesh Kumar Pandey and Sheelu Kachhap analysed the NCERT Class 5 English Literature textbook within the framework of multicultural education and with reference to National Education Policy (NEP) 2020. The findings demonstrated that textbook moves beyond literacy acquisition to cultivate empathy, intercultural competence, and critical reflection. By embedding regional, tribal, classroom-based, and Northeastern narratives, it envisioned NEP 2020's vision of integrating regional knowledge and celebrating India's cultural diversity. Thus, Children's literature emerges as a trans-formative pedagogical tool for fostering equity, inclusion, and lifelong learning from the early years of schooling.

I wish and hope that readers will not just enjoy reading these articles but also find motivation to write and contribute more for the development of education.

Lynda Zohmingliani
Chief Editor

Influence of Parental Educational Qualifications on the Environmental Attitude of Secondary School Students in Aizawl City

David C Lalruatpuia*
Lalchawimawii Ngente**

Abstract

This study investigated the influence of parental educational qualifications on the environmental attitudes of secondary school students in Aizawl City, Mizoram. A total of 443 students from government, private, and deficit schools were surveyed using the Environmental Attitude Scale (EAS-TH) by Taj (2016), and data were analysed through descriptive statistics and independent samples t-tests. Results revealed significant differences in students' environmental attitudes with respect to both fathers' and mothers' educational qualifications, with students whose parents were graduates or above demonstrating more favourable attitudes than those whose parents had lower educational attainment. These findings support the view that parental education enhances access to knowledge, modelling of eco-friendly behaviours, and intergenerational transmission of values. The results suggest that in the socio-cultural context of Aizawl City, where traditional ecological values intersect with urban change, parental education plays a critical role in shaping adolescents' perspectives. The study concludes that strengthening school–family partnerships can further enhance environmental education outcomes and foster responsible youth behaviour.

Keywords: Environmental Attitudes, Secondary School Students, Parental Education, Aizawl City

Introduction

Environmental challenges have become one of the most pressing global concerns of the 21st century. Issues such as climate change, deforestation, biodiversity loss,

*David C Lalruatpuia: M.Ed. Student, Institute of Advanced Studies in Education, Aizawl
Email: d9862894303@gmail.com ; phone - 9862894303
**Lalchawimawii Ngente: Assistant Professor, Institute of Advanced Studies in Education, Aizawl
Email: choii.bed@gmail.com

air and water pollution, and waste management are exerting immense pressure on ecosystems and human societies alike. In India, rapid urbanisation and industrialisation have aggravated these problems, leading to deteriorating air quality, groundwater depletion, improper waste disposal, and declining forest cover. These challenges are not only ecological but also social, as they directly affect the health, livelihoods, and quality of life of millions of people. For a region like Mizoram, which is endowed with rich biodiversity and fragile ecosystems, environmental degradation poses an even greater threat, as it risks undermining both traditional ways of life and future development prospects.

While policies, technology, and infrastructure are crucial for addressing environmental problems, they alone cannot secure sustainable solutions. What is equally, if not more, important is the development of positive environmental attitudes among citizens. Knowledge of environmental issues provides awareness, but it is attitudes that shape everyday behaviour, values, and decisions. A person may know about the importance of reducing plastic use, but unless they possess a favourable attitude toward environmental responsibility, they may not act on that knowledge. This distinction highlights why education should not only focus on imparting knowledge but also on cultivating environmental attitudes that can translate into meaningful and sustained action.

Recognising the importance of attitudes, both international and national initiatives have emphasised education for sustainable development. The United Nations Sustainable Development Goal (SDG) 4.7 stresses that education should empower learners to acquire the knowledge, skills, and attitudes needed to promote sustainable development. Similarly, the National Education Policy (NEP) 2020 of India highlights the integration of environmental awareness, conservation, and sustainable practices into school curricula, aiming to nurture environmentally responsible citizens. These policy frameworks demonstrate a global and national consensus that environmental education must extend beyond knowledge to include values, behaviours, and attitudes. Against this backdrop, the present study focuses on the influence of parental educational qualifications on the environmental attitudes of secondary school students in Aizawl City, offering insights into how families and schools together can shape a more sustainable future.

Rationale Of the Study

Although schools play a major role in teaching environmental responsibility, the family is often where values are practiced on a daily basis. Parents influence children not only through direct instruction but also through the behaviours they model. Those with higher levels of education are often more likely to discuss environmental issues

at home, make informed choices about resources, and encourage environmentally friendly habits through example. In this way, the educational background of parents may significantly affect how children perceive and respond to environmental concerns.

However, the connection between parental education and students' environmental attitudes is not always straightforward. Leppänen et al. (2012), in the Finnish context, observed that students' environmental attitudes often reflected broader family values rather than the parents' formal level of education. Similarly, Meeusen (2014) highlighted that the way families communicate about environmental matters—whether through open discussions, shared activities, or role-modelling—can be just as influential as educational attainment itself. Ozsoy (2012) also argued that in certain cases, factors such as gender and school experiences may have a stronger influence than parental education in shaping students' environmental attitudes. These studies indicate that while parental education matters, it interacts with other social and cultural dynamics that influence the development of young people's environmental orientations.

In Mizoram, there is still very limited research examining the relationship between parents' educational qualifications and students' environmental attitudes. Aizawl City, in particular, is experiencing rapid urbanisation, where families are navigating a balance between traditional respect for nature and emerging patterns of consumerism and waste. Understanding whether and how fathers' and mothers' education levels influence students' environmental attitudes is crucial for developing interventions that connect school learning with home practices. This study seeks to fill this gap by systematically examining the environmental attitudes of secondary school students in Aizawl City with reference to their parents' educational qualifications, thereby contributing to both local and wider discussions on the role of family background in environmental education.

Review of Related Literature

Grønhøj and Thøgersen (2009) analysed "Like Father, Like Son? Intergenerational Transmission of Values, Attitudes, and Behaviours in the Environmental Domain" and discovered that pro-environmental values and behaviors are often passed from parents to children, with lifestyle habits formed early in life contributing to sustainable attitudes in adolescence.

Tuncer et al. (2009) conducted "A Comparative Study on Environmental Attitudes of Turkish and Finnish University Students" and found that students whose parents had higher educational qualifications tended to report more positive environmental attitudes. The study highlighted that parental education not only influences students'

awareness of environmental issues but also shapes their sense of responsibility and willingness to adopt sustainable behaviors.

Leppänen et al. (2012) analysed "Parent–Child Similarity in Environmental Attitudes: A Pairwise Comparison" and found that environmental attitudes between mothers and fathers were positively related. Girls' attitudes were more closely aligned with their fathers' than with their mothers', while boys tended to exhibit fewer positive attitudes than both their parents and their female peers. The study also reported that parental education level did not significantly affect the environmental attitudes of adolescents.

Damerell, Howe, and Milner-Gulland (2013) studied "Child-Oriented Environmental Education Can Influence Parents' Knowledge and Household Behaviour" and found that environmental education targeted at children can indirectly raise environmental awareness and pro-environmental actions among parents, demonstrating a bidirectional influence between generations.

Meeusen (2014) conducted "The Intergenerational Transmission of Environmental Concern: The Influence of Parents and Communication Patterns within the Family" and found that both mothers and fathers influenced children's environmental concern, with open communication strengthening this effect. The study emphasized that the family is a key socialization agent for environmental values.

Hammami et al. (2017) conducted "Survey on Awareness and Attitudes of Secondary School Students Regarding Plastic Pollution: Implications for Environmental Education and Public Health in Sharjah City, UAE" and found that students whose mothers had higher educational qualifications displayed greater understanding of environmental issues and were more likely to engage in pro-environmental actions.

Zachariou et al. (2020) investigated "Exploring the Attitudes of Secondary Education Students on Environmental Education in Relation to Their Perceptions on Environmental Problems: The Case of the Prefecture of Viotia" and reported that satisfaction with Environmental Education (EE) programs was higher among students whose mothers were senior high school graduates, and urban students demonstrated stronger demand for EE due to greater awareness of local environmental problems.

Tok (2021) examined "Investigating the Changes in Children's Environmental Attitude: The Role of Parents' Education, School Type, and a Mobile Game Intervention" and found that girls and private-school students scored higher on environmental attitudes. Fathers' education levels were significantly associated with children's environmental attitudes, and mobile game interventions were effective in enhancing pro-environmental outlook.

Bashir et al. (2022) carried out "A Study of Environmental Awareness, Attitude, and Participation Among Secondary School Students of District Kulgam, J&K, India" and revealed that parental educational qualifications were not found to have a consistent impact on environmental awareness.

Kirbiš (2023) studied "Environmental Attitudes among Youth: How Much Do the Educational Characteristics of Parents and Young People Matter?" and provided empirical evidence that both parents' and young people's own educational characteristics significantly influence environmental attitudes. The study also noted that the strength of this relationship varies by context, suggesting that socio-cultural factors may shape the way parental education impacts youth environmental concern.

Objectives of the Study

1. To compare the environmental attitude of secondary school students in Aizawl City with regards to their fathers' educational qualifications.
2. To compare the environmental attitude of secondary school students in Aizawl City with regards to their mothers' educational qualifications.

Null Hypotheses of the Study

1. There is no significant difference between the environmental attitude of secondary school students of:
   a) Class X passed and XII passed fathers.
   b) Class XII passed and graduate & above fathers.
   c) Class X passed and graduate & above fathers.
2. There is no significant difference between the environmental attitude of secondary school students of:
   a) Class X passed and XII passed mothers.
   b) Class XII passed and graduate & above mothers.
   c) Class X passed and graduate & above mothers.

Research Methodology

This study employed a descriptive survey method to examine the environmental attitudes of secondary school students in Aizawl City in relation to their parents' educational qualifications. The descriptive survey design was considered appropriate as it allows the systematic collection of quantitative data to determine the current status of students' environmental attitudes and to compare variations between groups.

Population and Sample of the Study

The target population for the study comprised secondary school students enrolled in government, private, and deficit secondary schools within Aizawl City, Mizoram. From this population, a total of 443 students were selected as the sample for the study.

Table 1: Sample Profile of the Study

EDUCATIONAL QUALIFICATION	Class X passed	Class XII passed	Graduate & Above	TOTAL
FATHER	205	99	139	443
MOTHER	221	123	99	443

Tool Used

The study utilized the Environmental Attitude Scale (EAS-TH) developed and standardized by Taj (2016). The scale consists of 60 items covering six key dimensions: health and hygiene, wildlife, forests, polluters, population explosion, and general environmental concern.

Statistical Techniques Used

Data were analysed using mean, standard deviation, and percentage for descriptive statistics. To compare environmental attitudes regarding parental educational qualifications, independent samples t-tests were applied to determine statistical significance.

Analysis and Interpretation

1. Environmental Attitude of Secondary School Students in Aizawl City with Regards to their Fathers' Educational Qualifications.

The environmental attitude scores of secondary school students according to their fathers' educational qualifications is presented in Table 2.

Table 2: Environmental Attitude of Secondary School Students in Aizawl City with Regard to Their Fathers' Educational Qualifications

Level	Class X Passed		Class XII Passed		Graduate & Above	
	No	Percent	No	Percent	No	Percent
Extremely High	2	0.98%	1	1.01%	3	2.17%
High	11	5.37%	1	1.01%	20	14.49%

Above Average	56	27.32%	30	30.3%	63	45.65%
Average	136	66.34%	67	67.68%	52	37.68%
Below Average	0	0	0	0	0	0
Low	0	0	0	0	0	0
Extremely Low	0	0	0	0	0	0
Total	**205**	**100**	**99**	**100**	**139**	**100**

As shown in Table 2, a large proportion of students whose fathers had education up to Class X (66.34%) and Class XII (67.68%) were concentrated in the average category of environmental attitude. Conversely, among students whose fathers were graduates and above, a relatively higher percentage were found in the above average (45.65%) and high (14.49%) categories, while only 37.68% remained in the average category.

To examine whether environmental attitudes vary according to fathers' educational qualifications, independent samples t-tests were conducted for three pairwise comparisons: Class X vs Class XII, Class XII vs Graduate & Above, and Class X vs Graduate & Above. The results are summarized in Table 3.

Table 3: Comparison of Students' Environmental Attitude Scores Based on their Fathers' Educational Qualifications

Comparison Groups	N (G1)	Mean (G1)	SD (G1)	N (G2)	Mean (G2)	SD (G2)	t-value	Significance Level
Class X vs Class XII	205	165.33	13.59	99	164.00	41.41	0.072	Not Significant
Class XII vs Graduate & Above	99	164.00	41.41	139	174.54	16.49	2.40	0.05

a) In the Class X vs Class XII comparison, the mean scores were 165.33 and 164.00 respectively, with a t-value of 0.072, which was not significant. Therefore, the null hypothesis is accepted, indicating no significant difference in students' environmental attitudes between these two groups.

b) In the Class XII vs Graduate & Above comparison, students whose fathers were graduates or above had a higher mean score (174.54 vs 164.00), and the t-value

of 2.40 was significant at the 0.05 level. Hence, the null hypothesis is rejected, showing that higher paternal education beyond Class XII contributes to more positive environmental attitudes.

c) In the Class X vs Graduate & Above comparison, the difference in mean scores (174.54 vs 165.33) produced a t-value of 5.44, which was significant at the 0.01 level. Thus, the null hypothesis is rejected, confirming a strong positive influence of fathers' higher educational attainment on students' environmental attitudes.

2. Environmental Attitude of Secondary School Students in Aizawl City with Regard to their Mothers' Educational Qualifications.

The environmental attitude scores of secondary school students were analysed with regards to their mothers' educational qualifications. The results are summarized in Table 4.

Table 4: Environmental Attitude of Secondary School Students in Aizawl City Based on Their Mothers' Educational Qualifications.

Level	Class X Passed		Class XII Passed		Graduate (& above)	
	No	Percent	No	Percent	No	Percent
Extremely High	3	1.36 %	2	1.63 %	1	1.01 %
High	12	5.43 %	4	3.25 %	17	17.17%
Above Average	64	28.96 %	37	30.08 %	48	48.48%
Average	142	64.25 %	80	65.04 %	33	33.33%
Below Average	0	0	0	0	0	0
Low	0	0	0	0	0	0
Extremely Low	0	0	0	0	0	0
Total	221	100	123	100	99	100

Table 5 reveals that the majority of students whose mothers were educated up to Class X (64.25%) and Class XII (65.04%) were classified in the average category of environmental attitudes. In contrast, students whose mothers were graduates and above exhibited a greater concentration in the above average (48.48%) and high (17.17%) categories, with only 33.33% remaining in the average category

To examine whether environmental attitudes vary according to mothers' educational

qualifications, independent samples t-tests were conducted for three pairwise comparisons: Class X vs Class XII, Class XII vs Graduate & Above, and Class X vs Graduate & Above. The results are summarized in Table 5.

Table 5: Comparison of Students' Environmental Attitude Scores Based on their Mothers' Educational Qualifications

Comparison Groups	N (G1)	Mean (G1)	SD (G1)	N (G2)	Mean (G2)	SD (G2)	t-value	Significance Level
Class X vs Class XII	221	165.97	14.78	123	165.72	13.77	0.157	Not Significant
Class XII vs Graduate & Above	123	165.72	13.77	99	175.04	16.58	4.48	0.01
Class X vs Graduate & Above	221	165.97	14.78	99	174.04	16.58	4.67	0.01

a) In the Class X vs Class XII comparison, the mean scores were 165.97 and 165.72 respectively, with a t-value of 0.157, which was not significant. Therefore, the null hypothesis is accepted, indicating that mothers' education up to Class XII does not produce a significant difference in students' environmental attitudes.

b) In the Class XII vs Graduate & Above comparison, students whose mothers were graduates or above had a higher mean score (175.04 vs 165.72), and the t-value of 4.48 was significant at the 0.01 level. Hence, the null hypothesis is rejected, showing that higher maternal education beyond Class XII positively influences environmental attitudes.

c) In the Class X vs Graduate & Above comparison, the difference in mean scores (174.04 vs 165.97) produced a t-value of 4.67, which was significant at the 0.01 level. Thus, the null hypothesis is rejected, confirming that mothers' higher educational attainment contributes significantly to shaping more positive environmental attitudes among students.

Findings

1. Significant differences in environmental attitudes were observed based on fathers' educational qualifications, with higher paternal education associated

with higher mean scores.

2. Significant differences in environmental attitudes were also observed based on mothers' educational qualifications, with higher maternal education associated with higher mean scores.

Discussions

The findings of the study underscore the significant role parental education plays in shaping the environmental attitudes of secondary school students. Students with more highly educated fathers and mothers consistently displayed stronger environmental attitudes, which supports the view that parents serve as both knowledge providers and behavioural role models. This aligns with several previous studies that reported similar associations between parental education and students' environmental perspectives. The results confirm that educated parents are better positioned to discuss environmental issues, encourage eco-friendly household practices, and promote decision-making aligned with sustainability.

At the same time, these findings resonate strongly with the socio-cultural context of Mizoram. Traditionally, the Mizo community has maintained close ties with nature through agricultural practices, customary respect for forests, and collective approaches to resource use. However, with increasing urbanisation and modern lifestyles, these practices are gradually shifting. In this changing context, parental education becomes a bridge between traditional ecological values and modern environmental challenges, providing adolescents with a balanced framework for sustainable living.

The broader implications of the study suggest that environmental education in schools should not operate in isolation but should actively involve families and communities. Schools could initiate programmes that encourage joint parent–student participation, such as environmental awareness workshops, eco-clubs, and community projects. Policymakers should consider strategies that integrate environmental practices into both school curricula and family life, creating consistency in the values students encounter. Ultimately, the findings highlight that cultivating environmental responsibility requires a multi-stakeholder approach, where schools, families, and communities work together to reinforce sustainable attitudes and behaviours.

Conclusion.

The study establishes that parental educational qualifications exert a significant influence on the environmental attitudes of secondary school students in Aizawl City, with graduate and above parents contributing to more positive outlooks compared to those with lower educational attainment. This underscores the role of

family background, particularly parental education, in complementing school-based environmental instruction and shaping adolescent values during a formative stage. Within the unique socio-cultural context of Mizoram, where traditional ecological respect intersects with the pressures of urbanisation, parental education emerges as an important determinant of youth perspectives. The findings suggest that environmental education will be more effective if it extends beyond classrooms to include parental engagement and community participation. By strengthening school–family partnerships and encouraging parental involvement in awareness initiatives, policymakers and educators can foster consistent pro-environmental attitudes. Future studies may expand this inquiry by considering related factors such as socio-economic status, parental occupation, and communication patterns within families to provide a more comprehensive understanding of the home environment's influence on sustainable behaviour.

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A study on the Practices of High School Students on Risky Adolescence Behaviour

Zothangpuii*
Grace Kim Khaute**

Abstract

Adolescence is the most critical and vital stage of the life of any individual. It is a very significant period to plan and to fulfil one's dreams and aspirations. This stage is also characterized by ignorance or wrong choices often leading to many complications in the future. Besides, many adolescents develop wrong habits being tempted by instincts or due to wrong associations. They indulged in such activities to enjoy temporary comfort which is termed as risky behaviour. The objective of the present study is to find out the practices of high school students on risky adolescence behaviour. For the study, a sample of 600 students of the age group 13-18 years and belonging to urban and rural areas in Mizoram was selected. The study revealed that irrespective of their locale a high percentage of high school students engaged in risky adolescence behaviour.

Keywords: *Practices, Risky Behaviour ,Adolescent/ Adolescence*

Introduction

Adolescence is the most critical and vital stage of the life of any individual. It is the stage which begins at the end of childhood and ends at the beginning of adulthood (maturity). Poets have often described it as the spring of life and an important period in the total life span of human. It is at this stage that an individual undergoes through fast radical changes in the physical, mental, moral, spiritual, sexual and social aspects. However, on the other hand, this stage is marked by worries, anxieties, conflicts and habit formation.

*Dr. Zothangpuii, Assistant Professor, Department of Education, Govt. Aizawl West College, Mizoram. Email: apuiilelhchhun@gmail.com
** Dr. Grace Kim Khaute, Assistant Professor, Department of Education, Churachandpur Govt. College, Manipur. Email: gkkhaute@gmail.com

High school or secondary school days are usually the time when children enter their adolescence period and are in the stage where they want to prove themselves and want to make their own decisions. Many adolescents progress to maturity with comparatively less difficulty, experiencing outstanding physical health and potency and not being engaged in behaviours that place themselves or others in danger. On the other hand, there are also many unfortunates who indulge in many sorts of harmful risky behaviour such as use of narcotic substances and sexual activities and also in many illegal activities leading to emotional sufferings, mental health disorders and the consequences become very serious. Instead of becoming productive citizens, they become liabilities to the family, society and nation.

Adolescents go through changes to fit in a larger society as responsible members and to shoulder different responsibilities in the family and in the society. The problems of adolescents may vary in different societies as the practices of upbringing the children are different and very much culture specific. It implies that the adolescents have to be given special attention and they need to be handled with special care and understanding and should never be ignored. As the future of any nation depends upon the kind of its human resources, investing time and resources for adolescents is very essential. Investments on adolescents not only reflect socio-economic growth of the nation but also to the concerns of the society like community harmony, gender integrity, public stabilization and humanizing the value of life. They require to help themselves and to be helped to do it with availability of all types of facilities required for harmonious development of their personality.

Rationale

Mizoram is one of the fastest developing societies in the country when it comes to societal development, education, fashion and music industry, tourism etc. While traditions and customs are revered and practised yet the Mizo society have undergone tremendous changes when it comes to their way of life and the society in general. In fact, Mizos have westernized themselves to a great extent due to the impact of globalisation and technological advancements in all spheres of life. Like everyone else adolescents have also been deeply impacted. Traditionally, the Mizo culture has always given freedom to young boys and girls to interact with the opposite sex from an early age. However, in todays' time high voltage advertisements along with Facebook, Instagram, Reels, online chats, sex and crime related scenes in modern pictures have greatly influenced the behaviour of vulnerable adolescents throughout our country in general and the Mizo boys and girls in particular. Exposure to such things and normalising many social evils as part of the 'woke' culture everywhere around the world, unfortunately, have led to a rise in alcoholism and Drug abuse, unprotected

sexual activities, unwanted teenage pregnancies, abortions, rise in numbers of unwed mothers, prostitution, rape, murder, HIV, STD etc., even among Mizo adolescents. Keeping this in view, the study was conducted to study the Practices of High School Students on Risky Adolescent Behaviour in Mizoram and to suggest necessary measures to promote healthy adolescent behaviour in order to lead a happy and successful life.

Objectives

1. To examine the practices of urban and rural high school students of Mizoram on risky adolescent behaviour.
2. To suggest measures for promoting healthy adolescent behaviour among the high school students of Mizoram.

Null hypothesis

For the present study the following null hypothesis has been formulated for objective no.1

Ho= *There is no significant difference between urban and rural high school students with regard to their practices on risky adolescence behaviour*

Methodology

For the present study descriptive survey method was followed.

Population and sample

The population in the present study consists of all high school students who are adolescent between the ages of 13-18 years. The total sample of the study comprised of 600 high school students comprising of 300 urban high school students and 300 rural high school students.

Tools used for data collection

A questionnaire to assess the practices of high school students relating to adolescence behaviour constructed by the investigators was used.

The questionnaire consisted of 30 items of multiple-choice type and alternative response types (YES and NO) to reveal the practices on four components viz., tobacco use, alcohol and other substances, sexuality, and HIV/AIDS.

Mode of data collection

For the present study, data was collected from primary and secondary sources. Primary data was collected from two districts out of the eight districts of Mizoram among high school students studying in urban and rural areas in Mizoram.

Analysis of data

Data collected was analysed quantitatively using descriptive statistics like frequency, percentage, mean, S.D, and t- tests.

Findings and interpretation

The findings of the present study are presented in the following tables followed by item wise interpretation.

Table 1

Practices of High School Students on the use of Tobacco

Items No.		a		b		c		d		e	
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Tobacco Use	1	73%	54%	30%	20%	35%	29%	27%	36%		
	2	35%	19%	13%	5%	29%	29%	40%	52%	10%	8%
	3	91%	88%	13%	12%	4%	3%	6%	1%	11%	9%
	4	57%	56%	34%	20%	19%	12%	8%	20%	7%	2%
	5	42%	33%	64%	45%	4%	5%	50%	58%		
	6 (a)	**YES**				**NO**					
		Urban		Rural		Urban		Rural			
		70%		73%		30%		27%			
	6 (b)	i		ii		iii		iv			
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural		
		31%	33%	12%	12%	20%	24%	21%	19%		
	7 (a)	YES				**NO**					
		Urban		Rural		Urban		Rural			
		45%		49%		55%		51%			

From Table no.1, following interpretations have been made:

Item no.1 reveals that 73%, 30%, 35% and 27% of urban high school students smoke cigarette, chew tobacco, gutkha and paan respectively. Among the rural students; 54%, 20%, 29% and 36% responded that their friends smoke cigarette, chew

tobacco, gutkha and paan respectively. Besides these other local tobacco products like tuibur and sahdah are also popular among both urban and rural students.

Item no. 2 reveals that 35%, 13%, 29%, 40% and 10% of urban high school students started to chew tobacco products at home, when attending NGO activities like YMA, KTP, at a party, in the schools and school camps respectively for the first time. Among the rural students; 19%, 5%, 29%, 52% and 8% responded that they started tobacco products at home, attending NGO activities like YMA, KTP, at a party, in the schools and school camps respectively for the first time.

Item no.3 reveals that 91%, 13%, 4%, 6% and 11% of urban high school students started tobacco products because of their friends, imitating family members and community leaders, advertisements and their idols respectively. Among the rural students, 88%, 12%, 3%, 1% and 9% responded that they were exposed to use of tobacco first time through friends, observing family members and community leaders, advertisements and idols, respectively.

Item no. 4 reveals that among urban high school students 57%, 34%, 19%, 8% and 7% responded that their friend started tobacco products for the first time due to their curiosity, peer pressure, encouraged by elders, status projection and to attract opposite sex respectively. While the same is found to be the same among the rural students with 56%, 20%, 12%, 20% and 2% of their friends using tobacco products due to their curiosity, peer pressure, encouraged by elders, status projection and to attract opposite sex, respectively.

Item no. 5 reveals that 42%, 64%, 4% and 50% of urban high school students consuming tobacco products complain health problems like headache, stomach-ache, constipation and respiration, respectively. Among the rural students, 33%, 45%, 5% and 58% responded that their friends complain of health problems like headache, stomach-ache, constipation and respiration respectively.

Statements no.6 reveal that 70% of urban high school students answered ‘Yes’ while 30% answered ‘No’. Besides, urban students reported that failure to give up tobacco was due to uncomfortable feeling (31%), foul smell of mouth (12%), lack of will power (20%) and peer pressure (21%). Among the rural students, 73% respondents answered ‘Yes’ while 27% answered ‘No’. Similarly, the reason for rural students who failed to give up tobacco were 33%, 12%, 24% and 19% were due to their felt uncomfortable feeling (33%), foul smell of mouth (12%), lack of will power (24%) and peer pressure (19%).

Statements no. 7 reveals that 45% of urban high school students use tobacco while 55% do not use any tobacco products. Among the rural high school students, 49% take tobacco while 51% of the students do not use any tobacco products.

Table 2

Practices of High School Students on the use of Alcohol and other Substances

Items No.		a		b		c		d		e	
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Alcohol and Other Substances	8	30%	38%	56%	45%	21%	22%	10%	8%	26%	25%
	9	26%	25%	10%	6%	44%	38%	40%	36%	8%	7%
	10	90%	88%	9%	10%	3%	3%	5%	3%	8%	10%
	11	55%	54%	33%	28%	24%	18%	5%	9%	8%	16%
	12	45%	30%	57%	55%	4%	4%	42%	44%		
	13 (a)	**YES**				**NO**					
		Urban		Rural		Urban		Rural			
		56%		58%		44%		42%			
	13 (b)	**i**		**ii**		**iii**		**iv**			
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural		
		11%	10%	42%	42%	5%	2%	10%	7%		
	14 (a)	YES				**NO**					
		Urban		Rural		Urban		Rural			
		25%		23%		75%		77%			

Item –no.8 reveals that urban high school students consume liquor (30%), beer (56%), take pills (21%), sniff (10%) and use marijuana (26%). The rural students responded that their friends consume liquor (38%), beer (45%), take pills (22%), sniff (8%) and use marijuana (25%).

Item no. 9 reveals that the urban high school students reported 26%, 10%, 44%, 40% and 8% of their friends started taking alcohol and/or drug at home, when attending NGO activities like YMA, KTP, at a party, in the school and school camps, respectively for the first time. Among the rural students, 25%, 6%, 38%, 36% and 7% responded that their friends used alcohol and/or drugs products for the first time at home, attending NGO activities like YMA, KTP, at a party, in the school and school camps respectively.

Item no.10 reveals that 90%, 9%, 3%, 5% and 8% of urban high school students were exposed to use of alcohol and/or drugs through friends, imitation of family members and community leaders, advertisements and idols, respectively. Among the rural students, 88%, 10%, 3%, 3% and 10% were exposed to use of alcohol and/or drugs through friends, imitation of family members and community leaders, advertisements and idols, respectively.

Item no. 11 reveals that 55%, 33%, 24%, 5% and 8% of urban high school students started taking alcohol and/or drug products due to their curiosity, peer pressure, failure, frustration and to prove their masculinity respectively. Among the rural students, 54%, 28%, 18%, 9% and 16% responded that they started taking alcohol and/or drug products due to their curiosity, peer pressure, failure, frustration and to prove their masculinity respectively.

Item no. 12 reveals that 45%, 57%, 4% and 42% of urban high school students consuming alcohol and drugs are affected by health problems like headache, stomach-ache, constipation and respiratory problems respectively. Among the rural students, 30%, 55%, 4% and 44% complain of health problem like headache, stomach-ache, constipation and respiration respectively.

Item no.13 reveals that 56% of the urban high school students have knowledge of friends trying to give up alcohol and/or drugs but they fail to do so. The reason for not giving up was due to depression, addiction, psychological disorders and worsening health and peer pressure as responded by11%, 42%, 5% and 10% respectively. Among the rural students' 58% respondent that they know their friends trying to give up alcohol and/or drugs but they fail to do so. The reason for not giving up was due to depression, addiction, psychological disorders and worsening health and peer pressure as responded by 10%, 42%, 2% and 7% respectively.

Item no. 14 reveals that 25% of the urban high school students reported that they consume alcohol and/or drugs. while 23% of rural high school students reported the same.

Table 3

Practices of High School Students relating to Sexuality

Items No.		a		b		c		d		e		f	
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Adolescents and Sexuality	15	40%	1%	10%	8%	21%	13%	15%	17%	18%	27%	29%	35%
	16	10%	11%	18%	24%	13%	16%	34%	20%	30%	27%		
	17	68%	60%	9%	13%	2%	7%	16%	13%				
	18 (a)	1% - 25%		26% - 50%		51% - 75%		76% - 100%					
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural				
		19%	21%	31%	29%	36%	29%	18%	13%				
	18 (b)	1% - 25%		26% - 50%		51% - 75%		76% - 100%					
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural				
		32%	40%	38%	33%	18%	20%	11%	6%				

Adolescents and Sexuality													
	19	a		b		c		d					
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural				
		17%	19%	37%	44%	5%	5%	49%	34%				
	20 (Boys)	a		b		c							
		Urban	Rural	Urban	Rural	Urban	Rural						
		4%	1%	36%	20%	48%	72%						
	20 (Girls)	a		b		c							
		Urban	Rural	Urban	Rural	Urban	Rural						
		6%	1%	42%	35%	49%	55%						
	21	a		b		c		d		e			
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural		
		6%	2%	5%	5%	5%	10%	11%	11%	12%	18%		

Item no.15 reveals that among the urban high school students, 40% believe that their friends are involved in sexual activities, 10% reported that 75%-99% are involved in sexual activities, 21% reported that 50%-74% are involved in sexual activities, 15% reported that 25%-49% are involved in sexual activities, 18% reported that below 25% are involved in sexual activities and 29% reported that none is involved in sexual activities. Among the rural high school students, 1% reported that all are involved in sexual activities, 8% reported that 75%-99% are involved in sexual activities,13% reported that 50%-74% are involved in sexual activities, 17% reported that 25%-49% are involved in sexual activities, 27% reported that below 25% are involved in sexual activities and 35% reported that none is involved in sexual activities.

Item no.16 reveals that 10%, 18%, 13%, 34% and 30% of urban high school students usually indulge in homo sex, hetero sex, oral sex, touching private part and dating respectively. Among the rural students, 11%, 24%, 16%, 20% and 27% usually indulge in homo sex, hetero sex, oral sex, touching private part and dating respectively.

Item no.17 reveals that 68%, 9%, 2% and 16% of urban high school students usually indulge in sexual activities with their own boy/girlfriends, senior/junior students, teacher/staff of the school and local young boys/girls respectively. Among the rural students, 60%, 13%, 7%, and 13% usually indulge in sexual activities with their own boy/girlfriends, senior/junior students, teacher/staff of the school and local young boys/girls respectively.

Item no.18 reveals that among the urban high school students, 19%, 31%, 36% and 18% are of the opinion that males are the first to signal/approach the females in cases of 1%-25%, 26%-50%, 51%-75% and 76%-100% respectively. Further, among

the urban students 32%, 38%, 18%, and 11% opined that females are the first to approach males in cases of 1%-25%, 26%-50%, 51%-75% and 76%-100% respectively. Whereas, among rural students, 21%, 29%, 29%, and 13% are of the opinion that males are the first to signal/approach the females in cases of 1%-25%, 26%-50%, 51%-75% and 76%-100% respectively. Further, among rural high school students, 40%, 33%, 20%, and 6%were of the view that females are the first to approach males in cases of 1%-25%, 26%-50%, 51%-75% and 76%-100% respectively.

Item no. 19 reveals from table 3 that, 17%, 37%, and 5% of urban high school students reported that their friends used to take pills, condom, and traditional medicines as contraceptive measures to enjoy sex respectively. But, 49% of urban school students reported that they were not aware of it. Among the rural students, 19%, 44%, and 5% reported that their friends used to take pills, condom, and traditional medicines as contraceptive measures to enjoy sex respectively. But, 34% of rural high school students reported that they were not aware of it.

Item no.20 reveals from table no.3 that, 4%, 36%, and 48% of the urban high school students believed that between 9-12 years, 13-16 years, and 17-20 years respectively, boys usually indulged in sexual activities. Whereas, 6%, 42%, and 49% of the urban students believed that between 9-12 years, 13-16 years, and 17-20 years respectively, girls usually indulged in sexual activities. Similarly, 1%, 20%, and 72% of the rural high school students believed that boys usually indulged in sexual activities between 9-12 years, 13-16 years, and 17-20 years respectively. Further, 1%, 35%, and 55% of the rural students believed that girls usually indulged in sexual activities between 9-12 years, 13-16 years, and 17-20 years respectively.

Item no.21 reveals that 4.08, 6%, 5%, 5%, 11% and 12% of urban high school students reported that they were involved in sexual activities like homo sex with their own boy/girlfriends, hetero sex with senior/junior students, oral sex and touching private parts, and dating respectively. The rest 69% reported that they were not involved in any sexual activities. Among the rural students, 2%, 5%, 10%, 11% and 18% responded that they were involved in sexual activities like homo sex with their own boy/girlfriends, hetero sex with senior/junior students, oral sex and touching private parts, and dating respectively. The rest 56% reported that they were not involved in any sexual activities.

Table 4

Practices of High School Students relating to HIV/AIDS

Items No.		a		b		c		d	
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Practice relating to HIV / AIDS	22	29%	26%	37%	29%	66%	64%	5%	18%
		a		b		c		d	
	23	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
		39%	34%	37%	38%	27%	23%	5%	10%
		YES		NO					
		Urban	Rural	Urban	Rural				
	24	88%	90%	12%	10%				
	25	88%	93%	12%	7%				
	26	54%	40%	46%	60%				
	27	86%	83%	14%	17%				
	28	5%	4%	95%	96%				
	29	10%	25%	90%	75%				
	30	1%	1%	99%	99%				

Item no.22 reveals from table 4 that, urban high school students have knowledge of HIV/AIDS infected persons. According to their knowledge, 29%, 37%, 66% and 5% reported that they were infected by blood transfusion, sharing needles, sex, and pre-natal infection respectively. The rest 3% were ignorant of such patients. Among the rural students, 26%, 29%, 64%, and 18% responded that they have knowledge of HIV/AIDS infected persons who got infected by blood transfusion, sharing needles, sex, pre-natal infection respectively. The rest 8% were ignorant of such patients.

Item no.23 reveals that urban high school students treat HIV/AIDS infected persons sympathetically. 39% and 37% of urban students reported that their friends treat HIV/AIDS infected persons by providing medical care and encouraging them to attend counselling, but, 27% and 5% refrain from helping out due to fear and stigma respectively. Similarly, among the rural students 34% and 38% responded that their friends treat HIV/AIDS infected persons by providing medical care and encouraging them to attend counselling, but 23% and 10% refrain from helping out due to fear and stigma respectively.

Item no.24 reveals that 88% of urban high school students answered 'Yes' while 12% answered 'No' to the question "do you feel pity for HIV/AIDS victims?".

Among the rural students, 90% of school students answered 'Yes' while 10% of them answered 'No' to the same question.

Item no. 25 reveals that 88% of urban high school students answered 'Yes' while 12% answered 'No' to the question "are you afraid of HIV/AIDS infection?". In case of rural students, 93% answered 'Yes' while 7% answered 'No 'to the same question.

Item no.26 reveals that 54% of urban students answered 'Yes' while 46% answered 'No' to the question "have you ever discussed among your friends about the precautions that one should take to avoid HIV/AIDS infection?". Among the rural students, 40% answered 'Yes' while 60% answered 'No' to the same question.

Item no. 27 reveals that 86% of urban high school students answered 'Yes' while 14% answered 'No' to the question "If one of your friends is tested positive for HIV/AIDS, would you still associate with him/her?". Among the rural students, 83% answered 'Yes' while 17% of them answered 'No' to the same question.

Item no.28 reveals that 5% of urban secondary students answered 'Yes' while 95% answered 'No' to the question "Have you ever had sex with a person who had the risk of getting HIV/AIDS?". Among the rural students, 4% of secondary students answered 'Yes' while 96% of them answered 'No' to the same question.

Item no. 29 reveals that 10% of urban students answered 'Yes' while 90% answered 'No' to the question "Do you know any of your friends who indulged in unsafe practices that may result in HIV/AIDS infection?". Among the rural students, 25% of secondary students answered 'Yes' while 75% of them answered 'No' to the same question.

Item no. 30 reveals that 1% of both urban and rural high school students answered 'Yes' while 99% answered 'No' to the question "Have you ever shared needles with a drug abuser who had the risk of HIV/AIDS?".

Table – 5
t-value for High School Students compared on four components of risky Adolescence Behaviour

Groups	Components			
	Tobacco	Alcohol & Drugs	Sexuality	HIV/AIDS
Urban Vs. Rural	0.35	0.95	0.95**	0.90**

** Significant at .05 level, ** Significant at .01 level*

Table 5, reveals that the calculated t-value for urban and rural students is less than the table values at 0.01 and 0.05 levels of significance. Therefore, the null hypothesis can be accepted.

Hence, it can be concluded that there is no significant difference between urban and rural high school students with regard to their practices on risky adolescence behaviour.

Major findings

From the present study it was found that large number of students were consuming tobacco and alcohol products with their friends mainly due to peer pressure, curiosity and in environments like social gatherings etc.

It was also found that on sexual related practices and HIV/AIDS infection, there were fewer percentages of students involved in sexual activities The reason could be due to their awareness and fear of the risks of HIV/AIDS infections and the terminal effects.

Suggestions

On the basis of the present findings the following suggestions have been made.

- Mizoram Board of School Education (MBSE) should incorporate more contents in the curriculum and text books relating healthy adolescence behaviour.
- Mizoram Board of School Education (MBSE) should suitably design and schools should organize co-curricular activities for promotion of healthy adolescence behaviour at high school level.
- In-depth and systematic awareness about the risks of adolescence behaviour should be developed among teachers.
- The school should conduct lectures/ seminars/workshops inviting experts from various organisations and in various areas to promote healthy adolescence behaviour.
- Child centred pedagogy is the most effective way for promoting healthy adolescence behaviour among the secondary school students and it should be followed in schools.
- The Adolescence Education Program (AEP) should be carried out stringently in the school as laid down by the SCERT. The schools should devote at least one hour minimum in a week to carry out this program as per the guidelines and rules laid down by SCERT.
- The concerned government departments like Education, Health and Family Welfare, Social Welfare should organize programmes for students at the local and national levels for better understanding of healthy adolescence behaviour.

- All acts, laws etc. related to use of tobacco, use of alcohol and drugs and underage sexual activities should be discussed among the students and teachers by organizing seminars in the schools.
- In serious cases faced by students, the school must coordinate with the parents of the students and give advice on how to take necessary measures.
- National and International days of importance such as National Youth Day (12th January), World AIDS Day (01th December), World NO Tobacco Day (31th May), World NO Alcohol Day (02th October), World Health Day (07th April), International Day Against Drugs Abuse and Illicit Trafficking (26thJune) needs to be observed and activities related to the given day should be carried out by the school.
- Schools should work together and cooperate with the community to create an overall knowledge about the healthy life skills among the adolescence in a particular area.
- For development of healthy adolescence behaviour, education should be imparted through in-formal and non-formal ways.
- The activities of NGOs should be assessed and NGOs involved in promoting healthy adolescence behaviour should be fully supported.

Conclusion

Today's youth are living in societies which are fast developing under the impact of modernization, with little access to reliable information and lesser adult counsel. As a result, parents and educators are often confronted with young people's questions and expectations, which tend to challenge the established norms and principles and reveal inadequate preparation for coping with various demographic pre-occupations.

Adolescence is a stage of learning new things and is characterized by curiosity; the onus is on the teachers and the educational system as role models to create healthy habits and provide life skills to the students. The class room, teachers and educational institutions have a huge role to promote healthy adolescence behaviour because apart from the home environment students spend more time in the schools. It is considered appropriate for the school to bridge this gap. Just as the school prepares the young for the responsibilities of adult citizenship, it should also begin to share with the students the task of parenthood, sexuality and family life. In fact, everyone has a responsibility to help inculcate healthy adolescence behaviour in the family, community, school, neighbourhood etc if we are to produce good and healthy future generations.

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Issues and Challenges of Pre-School Teachers

Lalremruati*
F. Zonunmawii**
R. Lalthankhumi***

Abstract

Pre-school teachers frequently face high levels of stress and burnout due to factors such as inadequate resources, challenging work environments, and low compensation. Examining these issues can guide the development of policies and practices aimed at enhancing teacher well-being and improving retention rates. The quality of early childhood education is closely tied to the quality of teaching, highlighting the importance of addressing the challenges faced by pre-school teachers. Additionally, the lack of resources and support disproportionately impacts teachers in underprivileged areas. The study emphasizes the importance of having professionally educated teachers to ensure quality teaching. Furthermore, it suggests that children who receive pre-school education are better equipped to adjust to formal schooling, making pre-school enrolment crucial. The findings call for increased support and resources for pre-schools to improve the quality of early childhood education.

Keywords: *Pre-School Teachers, Early Childhood Care and Education (ECCE), Retention, Enrolment.*

Introduction:

Education is a ground-breaking instrument that has been utilized successfully to shape the general public and build up the nation by many countries in the world. Today's students are tomorrow's professionals. They were the human resource of the future that write the success story of the country in the years to come. Teachers play

*Lalremruati: MA student, Government Aizawl College. Email: ruattei040@gmail.com; Ph: 9862420820
** F. Zonunmawii: Research Scholar, Department of Education, Mizoram University. Email: mawimawii05@gmail.com, Ph: 7085881633
***Prof. R. Lalthankhumi: Professor, Department of Education, Government Aizawl College. Email: khumteiralte@gmail.com, Ph: 9436351712

an important role not only in shaping their career but also the future of the country. Teachers are their role models. Teachers educate and prepare them to bring the desired positive changes in the society. This was possible only if the teachers have been adequately equipped to educate others. It was therefore important to establish an effective teacher education program which equips the teacher with the essential knowledge and skills helpful in bringing the desired change among the students by the teachers. Teacher education was the core of education system of a country which determines the success of whole process of education (Sharma, 2019).

The quality of teachers is definitely one of the most important of all the factors that was required to improve the quality of education in India. No efforts or innovation in education can improve the quality of students unless the teachers are of good quality. Therefore, it is important to ensure a sufficient supply of high-quality candidates to the teaching profession and providing them with the best possible professional preparation. Quality of teachers mainly refers to the teachers‟ competency in the subject that he/she deals with, expertise to use methods and techniques of teaching, ability to understand learners" problems and the teachers' attitudinal makeup. The contents of pre-service teacher education programmed play a vital role in this context. The ability and attitude of teachers depend on the way any teacher education programmed is implemented.

Early Childhood Education (ECE) or Pre-School Education is a child-centred programmed and strictly warns teachers, parents and other caregivers about the risks of early formal learning. It follows a play-based developmentally appropriate programmed and focuses on the all-round development of the child by providing activities, experiences and opportunities for cognitive, language, social, emotional, physical and motor development. Under quality Early Childhood Education (ECE) programmed, age and developmentally appropriate activities related to different aspects of child development and school readiness were provided in an innovative and flexible manner to prepare young children for the primary grades in a stress-free, enabling and stimulating environment. Quality ECE was designed to improve later school performance and it targets the whole child.

Rationale of the Study:

Pre-school teachers often experience high levels of stress and burnout due to various factors like lack of resources, demanding work environments including low pay. Studying these issues can inform policies and practices aimed at improving teacher well- being, thereby enhancing retention rates.

The quality of early childhood education is directly linked to the quality of teaching. Identifying and addressing challenges faced by pre-school teachers can lead to improved teaching practices and better educational outcomes for children.

Also, challenges such as lack of resources and support disproportionately affect teachers in underprivileged areas. Studying these issues can help in developing strategies to ensure equitable access to high- quality early childhood education across different socio- economic groups.

Objectives of the Study:

1) To identify the number of teachers in pre-schools of Champhai.
2) To analyse the teachers' profile in pre-schools of Champhai.
3) To identify the issues and challenges faced by pre-school teachers in Champhai.

Methodology of the Study:

The investigator employed descriptive method for the conduct of the study. The survey comprised all pre-school instructors and anganwadi personnel in the district of Champhai, Mizoram. The sample includes 30 teachers and Anganwadi staff from Champhai.

The investigator employed a questionnaire for this investigation, visited the schools in person for the current study and obtained permission from the administration to gather the necessary data. The quantitative data obtained through the questionnaire was analyzed using percentage charts and frequency tables.

Analysis and Interpretation of Data:

Objective 1: *To identify the number of teachers in pre-schools of Champhai*

Table 1

Number of Teachers in Pre-Schools of Champhai.

Sl. No.	Name of Pre-School	No. of Male Teachers	No. of Female Teachers	Total
1.	Pris Ben School	0	2	2
2.	Kinder Joy, Pre School	1	3	4
3.	Hi- Kids Pre School	0	3	3
4.	Electric Veng, Anganwadi	0	2	2
5.	Bethel Veng, Anganwadi	0	2	2
6.	Tlangsam Centre-1, Anganwadi	0	2	2

7.	Venglai, Anganwadi	0	2	2
8.	Vengthlang, Anganwadi	0	2	2
9.	New Champhai Centre-1, Anganwadi	0	2	2
10.	Tlangsam Centre -2, Anganwadi	0	2	2
11.	Tlangsam Centre- 3, Anganwadi	0	2	2
12.	New Champhai Centre-2, Anganwadi	0	2	2
13.	Zotlmuang, Anganwadi	0	2	2
14.	Vengsang, Anganwadi	0	1	1
	TOTAL	**1**	**29**	**30**

Based on the table above, the investigator discovered that there are 29 female teachers and 1 male teacher, for a total of 30 teachers in pre-schools of Champhai.

Objective 2: *To analyse the teachers' profile in pre-schools of Champhai.*

Table 2

Teachers Profile in Pre-Schools of Champhai

Sl. No.	Name	Age	Designation	Educational Qualification	Year of Service
1.	Vanhminglawmi	37	Worker	BA	6-10
2.	Lalventhangi	58	Worker	HSLC	6-10
3.	Lalhmingengi	23	Teacher	B.Ed.	3-6
4.	Lallawmzuali	28	Teacher	HSLC	1year or less
5.	Marry Lalhruaitluangi	30	Teacher	B.Ed.	3-6
6.	Peniel Lalnunthangi	24	Teacher	B.A	3-6
7.	T.Lalhriatmawii	37	Helper	HSSLC	6-10
8.	R.Lalthanpari	40	Worker	HSLC	6-10
9.	K.Lalbiakthangi	52	Worker	HSSLC	6-10
10.	Lalngaihsaki	43	Helper	HSLC	6-10
11.	Laldingngheti	43	Teacher	B.A	14
12.	Jennie V.L.Chhanhimi	26	Teacher	HSSLC	3-6
13.	Lalngilneii	46	Helper	HSLC	3-6
14.	R.Lalawmpuii	26	Helper	HSLC	3-6
15.	Lalnunpuii	35	Helper	Class-8	3-6

16.	Malsawmdawngliani	36	Worker	HSSLC	6-10
17.	Lalrinhlui	41	Helper	HSLC	6-10
18.	R.Lalawmpuii	34	Worker	B.A	6-10
19.	Lalawmawii Khiangte	33	Worker	HSLC	6-10
20.	Chalthangi	55	Helper	Class 8	6-10
21.	Lalbiakhlupuii	37	Helper	B.A	1 year or less
22.	T.Lalduhawmi	22	Teacher	HSSLC	1-2
23.	Lalthakimi	25	Teacher	HSSLC	2-3
24.	Robert.Zadeng	27	Teacher	HSSLC	2-3
25.	Lalramngaii	48	Helper	Class 9	2-3
26.	Rozirmawii	40	Worker	HSSLC	3-6
27.	Lalsangpuii	49	Worker	HSSLC	6-10
28.	J.Zomuanpuii	36	Worker	HSSLC	6-10
29.	Saidingpuii	23	Worker	HSSLC	1-2
30.	Lalramthangi Parte	39	Helper	HSLC	6-10

From Table 2, the investigator found out that among the total of 30 pre-school teachers in the district of Champhai, there are 5 teachers with B.A educational qualification, 9 with HSLC qualification, and 2 with B.Ed. degree, 11 with HSSLC qualification and 2 are class 8th passed and one with class 9th passed. The teacher's age ranges from 22-60 years with 1-14 years of experience.

Objective 3: *To identify the issues and challenges faced by pre-school teachers in Champhai.*

Table 3

Issues and Challenges Faced by Pre-School Teachers in Champhai

S/N	NATURE OF PROBLEM	CRITERIA										TOTAL	
		SD		D		N		A		SA			
		f	%	f	%	f	%	f	%	f	%	N	%
1.	Number of holidays received in a year is adequate.	2	6.7	8	26.7	9	30	9	30	2	6.7	30	100
2.	The teachers are kind and respectful towards each other.	0	0	0	0	10	33.3	11	36.7	9	30	30	100
3.	The teaching staff feels accountable and has a sense of ownership.	0	0	0	0	16	53.3	7	23.3	7	23.3	30	100

4.	The facilities of the school are well- maintained.	0	0	1	3.33	12	40	8	26.7	9	30	30	100
5.	Administrators of the school treats each staff with respect.	0	0	0	0	11	36.7	14	46.7	5	16.7	30	100
6.	The faculty and staff voluntarily work to support students with disabilities.	1	3.33	0	0	4	13.3	8	26.7	17	60	30	100
7.	The teachers at the institution are well-versed in their respective fields.	0	0	1	3.33	9	30	14	46.7	6	20	30	100
8.	There is enough staff at the school.	0	0	1	3.33	17	56.7	5	16.7	7	23.3	30	100
9.	Teachers and students ought to get along well with one another.	0	0	1	3.33	9	30	6	20	14	46.7	30	100
10.	The school provides sufficient nutrition for the students.	0	0	0	0	16	53.3	5	16.7	9	30	30	100
11	The physical infrastructure of the school meets statutory requirements.	0	0	1	3.33	10	33.3	8	26.7	11	36.7	30	100
12.	Lack of permanent staff disrupts the administration of the school.	0	0	1	3.33	11	36.7	10	33.3	8	26.7	30	100
13.	The pre-school curriculum enhances holistic development of each child.	0	0	0	0	2	6.7	9	30	19	63.3	30	100

According to statement 1, the investigator discovered that 6.7% of teachers expressed serious dissatisfaction with the number of holidays they received annually. 30% of people are satisfied about holidays they receive each year, while 26.7% are dissatisfied. 30% are satisfied 6.7% are very satisfied with the number of holidays they receive annually.

In response to statement 2, the investigator discovered that while 0% strongly disagreed that teachers should treat their children with respect and care, 33.3% were neutral, 36.6% were satisfied, and 30% were extremely satisfied.

The third statement revealed that 0% of the respondents strongly disagreed that staff members have a sense of ownership and responsibility. 53.3% disagreed, 53.3 % were neutral, 23.3% agree, and 23.3% strongly agree that staff members have a sense of ownership and responsibility.

According to statement 4, the investigator discovered that 0% of the facilities of the school are well- maintained and meet statutory requirements while 33.3 % strongly disagreed, 40% were neutral, 26.7% were satisfied, and 30% were extremely satisfied.

Based on the fifth statement, the investigator discovered that 0% of respondents strongly disagreed that school employees treat one another with respect while 0 % disagreed, 36.7% neutral, 46.7% agreed, and 16.7% strongly agreed that employees treat every staff with respect.

According to statement number six, the investigator discovered that 33.3% strongly disagreed in the staff who voluntarily assist students with disabilities, while 13.3% were neutral, 26.67% agreed, and 60% strongly agreed.

Based on the seventh statement, the investigator found that 0% strongly disagreed that the teachers are knowledgeable in their professions, while 3.33% disagreed, 30% were neutral, 46.7% agreed, and 20% highly agreed.

As per the findings of statement number 8, the investigator discovered that while 0% strongly disagreed that the school employs enough people, 3.33% disagreed, 56.6 were neutral, 16.7% agreed, and 23.3% strongly agreed.

The investigator discovered that, with regard to proposition number 9, 0% strongly disagreed, 3.33% disagreed, 30% were neutral, 20% agreed and 46.7% strongly agreed that teachers and students should get along well.

The investigator discovered that with regards to statement number 10, 53.3% express no opinion, while 0% strongly disagreed and 0% disagreed. Whereas 16.7% agreed and 30% strongly agreed that the school provides sufficient nutrition for the students.

0% of respondents strongly disagreed that the physical infrastructure of the school meets statutory requirements according to statement number 11. 3.33% do not agree, 26.7% agreed, 33.3% were neutral and 36.7% strongly agreed.

As per the 12th statement according to the investigator findings, 3.33% disagreed, 36.7% were neutral, 33.3% agreed, and 26.7% strongly agreed that lack of permanent staff disrupts the administration of the school.

According to statement number 13, the investigator discovered that 0% strongly disagreed, 6.7% were neutral, 30% agreed, and 63.3 strongly agreed that the pre-school program promotes each child's overall development.

The investigator determined that the teachers are dissatisfied with their remuneration and as a reward for their work they demand better pay. Also, the absence of regular employees and constant changing of provisional employees were found to disrupt the administration of the studied pre-schools. In order to support children's growth and enjoyment of food, the teachers also recommended improvement nutrition supplies. Additionally, the teachers proposed that the centre's calendar was similar to that of school calendar. Investigator additionally discovered that the educators want improved and consistent nourishment supplies, as well as better facilities for the centre.

Major Findings of the Study:

The major findings of the study are:

1) The investigator discovered that among the thirty pre-school teachers in Champhai district, 5 had a B.A degree, 9 had an HSLC certificate, 2 had a B.Ed. degree, 11 had an HSSLC qualification, 2 had completed the eighth grade and 1 had passed the ninth grade.
2) Pre-school teachers in Champhai had a total 1-14 years of experiences, and their ages ranged from 22 to 60.
3) Based on the current investigation, the investigator found that although instructors put in a lot of labour, their pay is quite low.
4) The investigation revealed that the major issues faced by pre-school teachers is insufficient nutrition and supplements.
5) Additionally, the investigator discovered that the pre-school teachers desired improved centre amenities.
6) The investigator also revealed that pre-school teachers aspire to have similar academic calendars as formal schools.

Discussion and Conclusion:

The study suggested that despite the critical role they play in early childhood development, pre-school teachers frequently receive lower salaries compared to other education professionals. This disparity can lead to high turnover rates and lack of long- term commitment to the profession. Many pre-schools face constraints in term

of educational materials, classroom supplies, and appropriate facilities. This lack of resources can hinder the delivery of high- quality education and impact the overall learning experiences of children. The teachers must have a professional educational degree to ensure quality teaching by qualified teachers. Students who have pre-school education can adjust easily to formal schools. So, the enrolment of children to pre-schools is deemed crucial by the study.

Early Childhood Education (ECE) teachers lay the foundation for lifelong learning. They help develop essential skills such as literacy, numeracy, and social- emotional abilities in young children. Teachers guide children in developing social skills, such as sharing, cooperation, and conflict resolution, which are vital for their future interactions. ECE teachers engage children in activities that stimulate cognitive development, such as problem- solving, critical thinking, and creativity.

Teachers often act as a bridge between children and their parents, encouraging parental involvement and supporting family engagement in the child's education.

Pre-school teachers play a pivotal role in the foundational development of children, yet the face numerous challenges that impede their ability to perform optimally. These challenges include overwhelming workloads that contribute to significant burnout, insufficient compensation that does not match the importance and intensity of their work, and a lack of professional development opportunities that stifles their growth and adaptation to new teaching methods. Classroom management issues, such as handing diverse student needs, behavioural problems, further add their stress.

Resource limitations, such as inadequate educational materials and outdated technology, hamper the quality of education that can be delivered. Additionally, navigating through complex regulatory frameworks often leaves teachers feeling unsupported and undervalued by the educational system.

Finally, by addressing these multifaceted issues through comprehensive, the challenges faced by pre-school teachers can be significantly alleviated, leading to a more sustainable and effective early childhood education.

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Student's Perception on the Various Components of Semester System

Rosy Lalrinsangi*

Abstract

The current study involved 823 undergraduate college students who were chosen at random from arts, science and commerce undergraduate colleges affiliated to the Mizoram University to find out their perception towards semester system. Self-constructed perception scale revealing the overall perception on semester system and their perception towards five components of semester system - general observation, course of study, evaluation, method of teaching and choice-based credit system was administered. Results reveled that with respect to overall perception and all components of semester system except evaluation component, the arts students had a more favourable perception on semester system compared to the science students. Findings also show that with respect to overall perception and all components of semester system, the arts students had a more favourable perception on semester system compared to the commerce students.

Keywords: *Perception, Semester System, Students, Components, Colleges.*

Introduction

The semester system is a new system programme that is gradually replacing the previous annual system programme. It is the division of an academic year into two parts or terms, with courses designed separately for each semester and exams administered at the conclusion of each course. According to the Dictionary of Education edited by Carter V. Good, a semester is typically between 16 and 18 weeks long.

The semester system was designed to provide students with opportunities for continuous assessment, evaluation, and feedback. This was the primary motivation

*Rosy Lalrinsangi: Associate Professor, Govt T Romana College. Email: rosy.lalrinsangi@gmail.com, Ph: 9862363086

behind the system's implementation. Throughout the academic year, students are required to participate for a longer amount of time, which helps them develop the habits of regular study, punctuality, and a work ethic.

India's educational system has begun to gradually incorporate the semester system. The semester system was partially or completely implemented by a few affiliated and residential universities following agricultural and technological institutes. In 1967, Meerut University was the first to implement the semester system on a broad basis. The system was implemented at approximately 55 connected institutions with more than 60,000 students. In addition to Meerut University, many other universities in India have adopted the semester system, such as Aligarh Muslim University, Banaras Hindu University, M.S. University, Madras University, Annamalai University, and Jawaharlal Nehru University, among others. In an attempt to change how higher education is structured, many colleges across the country have instituted the semester system for both undergraduate and graduate students. The instructional framework has changed as a result of several higher education institutions implementing the semester system.

In India, the University Grants Commission announced in the eleventh five-year plan for 2007-2012 that universities would implement the semester system at the undergraduate level by 2012. In response to the mandate from the University Grants Commission, Mizoram University implemented the semester system for all its affiliated colleges beginning with the 2011-2012 academic year.

Review of Related Literature

Haseena and Reddy (2012) examined the attitude of postgraduate students towards the semester system and discovered that, regardless of gender, the majority of students held a more positive view of the semester system. The science students indicated a more favourable opinion towards the semester system than the Arts students.

Chaliha and Gogoi (2019) conducted a study on the attitudes of undergraduate general degree students toward the semester system. The findings found that science students had a better attitude towards the semester system than arts and commerce students. There was no substantial difference between the attitudes of arts and science students towards the semester system. Science students exhibited a better attitude than commerce students in relation to their attitude towards the semester system. The attitude of arts students was more favourable than that of commerce students

Subedi (2019) investigated the perspectives of Tribhuvan University students and faculty regarding the semester system. The findings of the survey demonstrated

that both teachers and students held a favourable view of the semester system's curriculum. The perception of the teaching and learning environment was likewise positive. Students had a favourable impression of the instructors and their instructional methods.

Need of the study

In accordance with University Grants Commission (UGC) regulations, Mizoram university affiliated colleges have also implemented semester system. Since 2011-2012 when Mizoram University implemented the semester system for all of its affiliated colleges, no prior research has been conducted on the perceptions of college students in Mizoram regarding the semester system. In order to obtain a full understanding of the semester system, it is necessary to investigate the perceptions of college students regarding the semester system in Mizoram's undergraduate colleges.

Objectives of the Study

1. To compare students' overall perception of semester system in undergraduate colleges of Mizoram with respect to stream of course.
2. To compare students' perception on the different components of semester system with reference to stream of course

Hypothesis of the study

1. There is no significant difference between science students and commerce students' overall perception of semester system.
2. There is no significant difference between science students and arts students' overall perception of semester system.
3. There is no significant difference between commerce students and arts students' overall perception of semester system.
4. There is no significant difference between science students and commerce students' perception in the general observation component of semester system.
5. There is no significant difference between science students and arts students' perception in the general observation component of semester system.
6. There is no significant difference between commerce students and arts students' perception in the general observation component of semester system.
7. There is no significant difference between science students and commerce students' perception in the course of study component of semester system.

8. There is no significant difference between science students and arts students' perception in the course of study component of semester system.
9. There is no significant difference between commerce students and arts students' perception in the course of study component of semester system.
10. There is no significant difference between science students and commerce students' perception in the evaluation component of semester system.
11. There is no significant difference between science students and arts students' perception in the evaluation component of semester system.
12. There is no significant difference between commerce students and arts students' perception in the evaluation component of semester system.
13. There is no significant difference between science students and commerce students' perception in the method of teaching component of semester system.
14. There is no significant difference between science students and arts students' perception in the method of teaching component of semester system.
15. There is no significant difference between commerce students and arts students' perception in the method of teaching component of semester
16. There is no significant difference between science students and commerce students' perception in the choice-based credit system component of semester system.
17. There is no significant difference between science students and arts students' perception in the choice-based credit system component of semester system.
18. There is no significant difference between commerce students and arts students' perception in the choice-based credit system component of semester system

Methodology

In the present study descriptive survey method has been adopted as it is to find out the perception of students on semester system in undergraduate colleges in Mizoram and to compare the differences in the perception of students on semester system in undergraduate colleges in Mizoram with reference to the different streams of course.

Population and sample

All college students of Mizoram consist of the population, out of this, 823 college students from 21 undergraduate colleges were selected as sample for the study. The name of the college and number of selected sample students from different streams is given in the following table.1.

Tools used

Students' perception scale on semester system developed and standardized by the investigator were used to collect data. The perception scale consists of 27 statements categorizes under five components as follows:a

1. General observation component
2. Course of study component
3. Evaluation component
4. Method of teaching component
5. Choice Based Credit system

Each statement in the perception scale on semester system has five response option such as - Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree. All the statements in students' perception scale were positive, therefore, for scoring purposes, they were given the scores 5, 4, 3, 2, 1.

Reliability of the scale

For establishing the reliability of the scale, 'Test-Retest Method' was applied. For this, the developed scale was administered to 90 students and after one week, the same scale was administered to the same students. The scores obtained by the students on the two tests were used to compute the co-efficient of reliability by using the product moment correlation. The co-efficient of reliability of the scale came out to be 0.801 which can be considered adequate for the perception scale.

Validity of the scale

For the present scale, content validity was established by seeking the decisions of experts and professionals in the field of education with the nature of content covered by the statements on semester system. The scale was given to 10 experts and all the experts approved on the validity of the content of items.

Analysis and Interpretation of Data

Analysis and interpretation of data were done in accordance with the objectives:

Objective No.1: *To compare students' overall perception of semester system in undergraduate colleges of Mizoram with respect to stream of course.*

The three streams of courses namely Science, Commerce and Arts are most commonly offered in colleges in Mizoram. The differences in the students' overall perception of semester system in undergraduate colleges were compared with reference to the three streams of courses. Table 2 shows the comparison of science

students & commerce students, science students & arts students and commerce students & arts students' overall perception of semester system

Table 2

Comparison of science & commerce, science & arts and commerce & arts students' overall perception of Semester System

Groups	Number	Mean	SD	MD	SE_{MD}	t- Value	Sig level
Science students	183	105.71	9.016	0.076	0.959	0.080	NS
Commerce students	205	105.63	8.864				
Science students	183	105.71	9.016	3.784	0.851	4.448	**
Arts students	435	109.49	11.024				
Commerce students	205	105.63	8.864	3.860	0.868	4.445	**
Arts students	435	109.49	11.024				

NS=Not significant ****=Significant at .01 level**

Analysis of the result vide Table No - 2 reveals that the 't' value for the significance of difference between science students and commerce students is not significant. Therefore, the null hypothesis No. 1 that assumes that there is no significant difference between science students and commerce students' overall perception of semester system is accepted.

Further examination of the result vides Table No 2 reveal that the 't' value for the significance of difference in the overall perception on semester system between science students and arts students is significant. Therefore, the null hypothesis No.2 is rejected, since the two groups differed significantly at .01 level of confidence. The result indicates that arts students have a more favourable overall perception of semester system than the science students.

Continuing with the analysis of the result vide Table No - 2 reveals that the 't' value for the significance of difference between commerce students and arts students is significant. Therefore, the null hypothesis No. 3 is rejected, since the two groups differed significantly at .01 level of confidence The result indicates that arts students have a more favourable overall perception of semester system than the commerce students.

Objective No.2: *To compare students' perception on the different components of semester system with reference to stream of course.*

The differences in the students' perception on the different components of semester system in colleges were compared with reference to students taking the three streams of course. For this, the mean and standard deviation of the perception

scores of all the three streams were calculated. The mean differences were then tested by applying 't' test and the details are presented in the following tables.

(i) Students' perception on general observation component of semester system with reference to stream of course:

Table No.3 shows the comparison of science & commerce students, science & arts students and commerce & arts students' perception on general observation component of semester system.

Table 3

Comparison of science & commerce, science & arts and commerce & arts students' perception on general observation component of semester system

Groups	Number	Mean	SD	MD	SE_{MD}	t- Value	Sig level
Science students	183	23.86	2.377	0.175	0.264	0.663	NS
Commerce students	205	23.68	2.377				
Science students	183	23.86	2.377	0.678	0.225	3.007	**
Arts students	435	24.54	2.943				
Commerce students	205	23.68	2.377	0.853	0.242	3.518	**
Arts students	435	24.54	2.943				

NS= Not significant **= Significant at .01 level

Enquiry of the result vide Table No - 3 reveals that the 't' value for the significance of difference between science students and commerce students' perception on general observation component of semester system is not significant. Therefore, the null hypothesis No.4 is accepted.

Further investigation of the result of Table No. 3 discloses that the 't' value for the significance of difference between science students and arts students' perception on general observation component of semester system is significant. Therefore, the null hypothesis No.5 is rejected. The result indicates that arts students have a more favourable perception on the general observation component of semester system than the science students.

Continuing with the analysis of the result vide Table No – 3 reveals that the 't' value for the significance of difference between commerce students and arts students is significant. Therefore, the null hypothesis No.6 is rejected. The result indicates that arts students have a more favourable perception on the general observation component of semester system than the commerce students.

(ii) Students' perception on the course of study component of semester system with reference to stream of course:

Table No.4 shows the comparison of science & commerce students, science & arts students and commerce & arts students' perception on the course of study component of semester system.

Table 4

Comparison of science & commerce, science & arts and commerce & arts students' perception in the course of study component of semester system

Groups	Number	Mean	SD	MD	SE_{MD}	t- Value	Sig level
Science students	183	11.39	1.680	0.060	0.171	0.353	NS
Commerce students	205	11.45	1.679				
Science students	183	11.39	1.680	0.496	0.146	3.398	**
Arts students	435	11.89	1.603				
Commerce students	205	11.45	1.679	0.436	0.140	3.110	**
Arts students	435	11.89	1.603				

NS= Not significant **= Significant at .01 level

Examination of the result vide Table No - 4 reveals that the 't' value for the significance of difference between science students and commerce students' perception in the course of study component of semester system is not significant. Therefore, the null hypothesis No.7 is accepted.

Further examination of the result vide Table No - 4 reveals that the 't' value for the significance of difference between science students and arts students' perception in the course of study component of semester system is significant. Therefore, the null hypothesis No.8 is rejected. The result indicates that arts students have a more favourable perception in the course of study component of semester system than the science students.

Continuing with the examination of the result of Table No. 4 discloses that the 't' value for the significance of difference between commerce students and arts students' perception in the course of study component of semester system is significant. Therefore, the null hypothesis No.9 is rejected. The result indicates that arts students have a more favourable perception in the course of study component of semester system than the commerce students.

(iii) Students' perception on evaluation component of semester system with reference to stream of course:

The difference in the students' perception in the evaluation component of semester system was compared with reference to stream of course. Table 5 shows the comparison of science & commerce students, science & arts students and commerce & arts students' perception in the evaluation component of semester system.

Table 5

Comparison of science & commerce, science & arts and commerce & arts students' perception in the evaluation component of semester system

Groups	Number	Mean	SD	MD	SE_{MD}	t- Value	Sig level
Science students	183	24.17	2.333	0.365	0.245	1.488	NS
Commerce students	205	23.81	2.499				
Science students	183	24.17	2.333	0.244	0.215	1.131	NS
Arts students	435	24.42	2.687				
Commerce students	205	23.81	2.499	0.609	0.217	2.806	**
Arts students	435	24.42	2.687				

NS= Not significant **= Significant at .01 level

Investigation of the result vide Table No - 5 reveals that the 't' value for the significance of difference between science students and commerce students is not significant. Therefore, the null hypothesis No.10 is accepted.

Further investigation of the result vide Table No - 5 reveals that the 't' value for the significance of difference between science students and arts students' perception in the evaluation component of semester system is not significant. Therefore, the null hypothesis No.11 is accepted.

Continuing with the investigation of the result of Table No. 5 discloses that the 't' value for the significance of difference between commerce students and arts students is significant. Therefore, the null hypothesis No.12 is rejected. The result indicates that arts students have a more favourable perception in the evaluation component of semester system than the commerce students.

(iv) Students' perception on method of teaching component of semester system with reference to stream of course:

The difference in the students' perception in the method of teaching component of semester system was compared with reference to stream of course. Table 6 shows the comparison of science & commerce students, science & arts students and commerce & arts students' perception in the method of teaching component of semester system.

Table 6

Comparison of science & commerce, science & arts and commerce & arts students' perception in the method of teaching component of semester system

Groups	Number	Mean	SD	MD	SE_{MD}	t- Value	Sig level
Science students	183	31.22	3.701	0.181	0.377	0.481	NS
Commerce students	205	31.40	3.723				
Science students	183	31.22	3.701	1.432	0.327	4.378	**
Arts students	435	32.65	3.739				
Commerce students	205	31.40	3.723	1.251	0.316	3.960	**
Arts students	435	32.65	3.739				

NS= Not significant **= Significant at .01 level

Investigation of the result vide Table No -6 reveals that the 't' value for the significance of difference between science students and commerce students is not significant. Therefore, the null hypothesis No.13 which assumes that there is no significant difference between science students and commerce students' perception in the method of teaching component of semester system is accepted.

Further investigation of the result vide Table No -6 reveals that the 't' value for the significance of difference between science students and arts students' perception in the method of teaching component of semester system is significant. Therefore, the null hypothesis No.14 which assumes that there is no significant difference between science students and arts students' perception in the method of teaching component of semester system is rejected. The result indicates that arts students have a more favourable perception in the method of teaching component of semester system than the science students.

Continuing with the investigation of the result of Table No -6 discloses that the 't' value for the significance of difference between commerce students and arts students is significant. Consequently, the null hypothesis No.15 which assumes that there is no significant difference between commerce students and arts students' perception in the method of teaching component of semester system is rejected. The result indicates that arts students have a more favourable perception in the method of teaching component of semester system than the commerce students.

(v) Students' perception on choice-based credit system component of semester system with reference to stream of course:

The difference in the students' perception in the choice-based credit system component of semester system was compared with reference to stream of course.

Table 7 shows the comparison of science & commerce students, science & arts students and commerce & arts students' perception in the choice-based credit system component of semester system.

Table 7

Comparison of science & commerce, science & arts and commerce & arts students' perception in the choice-based credit system component of semester system

Groups	Number	Mean	SD	MD	SE_{MD}	t- Value	Sig level
Science students	183	15.07	1.929	0.222	0.196	1.132	NS
Commerce students	205	15.29	1.933				
Science students	183	15.07	1.929	0.934	0.172	5.430	**
Arts students	435	16.00	2.009				
Commerce students	205	15.29	1.933	0.712	0.166	4.295	**
Arts students	435	16.00	2.009				

NS= Not significant **= Significant at .01 level

Investigation of the result vide Table No - 7 reveals that the 't' value for the significance of difference between science students and commerce students is not significant. Therefore, the null hypothesis No.16 is accepted.

Further investigation of the result vides Table No -7 reveals that the 't' value for the significance of difference between science students and arts students' perception in the choice-based credit system component of semester system is significant. Therefore, the null hypothesis No.17 is rejected. The result indicates that arts students have a more favourable perception in the choice-based credit system component of semester system than the science students.

Continuing with the investigation of the result of Table No. 7 discloses that the 't' value for the significance of difference between commerce students and arts students is significant. Consequently, the null hypothesis No.18 is rejected. The result indicates that arts students have a more favourable perception in the choice-based credit system component of semester system than the commerce students.

Major Findings:

The following are the major findings of the present study:

1. **Comparing students' overall perception on semester system in undergraduate colleges of Mizoram with respect to stream of study.**

i) There is no significant difference between science students and commerce students' overall perception on semester system

ii) Arts students had a more favourable perception than science students in the overall perception on semester system

iii) Arts students had a more favourable perception than commerce students in the overall perception on semester system

2. Comparing students' perception on the different components of semester system in undergraduate colleges of Mizoram with reference to stream of study.

(A) General observation component of semester system

i) There is no significant difference between science students and commerce students' perception in the general observation component of semester system

ii) Arts students had a more favourable perception than science students in the general observation component of semester system.

iii) Arts students had a more favourable perception than commerce students in the general observation component of semester system

(B) Course of study components of semester system

i) There is no significant difference between science students and commerce students' perception in the course of study component of semester system

ii) Arts students had a more favourable perception than science students in the course of study component of semester system

iii) Arts students had a more favourable perception than the commerce students in the course of study component of semester system

(C) Evaluation component of semester system

i) There is no significant difference between science students and commerce students' perception in the evaluation component of semester system

ii) There is no significant difference between science students and arts students' perception in the evaluation component of semester system

iii) Arts students had a more favourable perception than commerce students in the evaluation component of semester system

(D) Method of teaching component of semester system

i) There is no significant difference between science students and commerce students' perception in the method of teaching component of semester system

ii) Arts students had a more favourable perception than the science students in the method of teaching component of semester system

iii) Arts students had a more favourable perception than the commerce students in the method of teaching component of semester system

(E) Choice Based Credit System components of semester system

i) There is no significant difference between science students and commerce students' perception in the choice-based credit system component of semester system.

ii) Arts students had a more favourable perception than science students in the choice-based credit system component of semester system.

iii) Arts students had a more favourable perception than commerce students in the choice-based credit system component of semester system

It was found that with respect to overall perception and all components of semester system except evaluation component, the arts students had a more favourable perception on semester system compared to the science students.

Further, it was also found that with respect to overall perception and all components of semester system, the arts students had a more favourable perception on semester system compared to the commerce students.

Discussion on the Findings:

Students having good results in HSLC often take up the science stream, while arts stream is usually taken by low achieving students. Now, in semester system, if a learner fails in one or more papers, He/she can repeat the particular paper in which they fail. They do not need to repeat all the papers in a given semester. Now, this is very advantageous for many of the students from the arts stream who often fail in one or two subjects. The science students ordinarily do not need to repeat papers since many of them do not fail. Therefore, the reason why arts students favour the semester system more than the science students can be accounted to this.

Commerce as a stream of education is a study of trade and business activities such as the exchange of goods and services from producer to final consumer. Conversely, the study of Arts or Humanities enables a student to develop critical, argumentative

and creative skills. So, one can say that commerce defies comprehension, creativity and analysis while Arts is nothing but a culmination of all those. Now, in semester system, students were given assignments, seminars, project work etc. which really enhances critical and creative skills of the arts students. Thus, the probable reason why arts students had a more favourable perception on semester system compared to the commerce students could be because the method of teaching employed in semester system enhances creativity of the arts students:

Suggestions:

Based on the findings it can be suggested that:

1. Benefits of the semester system such as more time to understand and apply concepts, and better preparation for higher education could be highlighted to the science and commerce students.
2. Inter-disciplinary events and competitions to foster interaction between science, commerce and arts students could be organized.
3. Misconceptions that science and commerce students may have about the semester system could be addressed.
4. Role models from the science and commerce fields who have excelled under the semester system could be showcased.

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Understanding Ethnomathematics For Enhancing Sustainable Mathematics Education

TBC Lalramnghaka*
Dr. Prateek Chaurasia**

Abstract

Ethnomathematics, a field that explores the interconnection between cultural practices and mathematical knowledge, offers transformative potential for promoting sustainable mathematics education. It challenges the dominance of Eurocentric mathematical paradigms by integrating indigenous knowledge systems, thereby contextualizing learning within students' cultural realities. Ethnomathematical perspectives shed light on the rich interplay between traditional knowledge, craftsmanship, measurement, and spatial reasoning that is embedded in daily practices. Understanding ethnomathematics as a pedagogical and philosophical approach enables learners to see mathematics as a living discipline rooted in human experience and community life. This study critically examines how ethnomathematics can enhance sustainable mathematics education by fostering cultural inclusivity, relevance, and continuity of indigenous wisdom. Through exploring cultural contexts, the paper highlights the importance of culturally responsive pedagogy, linking traditional mathematical practices to classroom learning for deeper comprehension and sustainability. The integration of ethnomathematical perspectives into formal education not only revitalizes indigenous culture but also equips students with a holistic understanding of mathematics as both universal and local, rational and experiential, analytical and creative.

Keywords: *Ethnomathematics, Mathematics learning, Culture, Sustainable education, Cultural pedagogy*

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* TBC Lalramnghaka: Research scholar, Department of Education, Mizoram University. Email: tbclalramnghaka@gmail.com, Ph: 8014526906
**Dr. Prateek Chaurasia: Assistant Professor, Faculty of Education, Banaras Hindu University, Varanasi. Email: prateek.chaurasia100@gmail.com, Ph: 8188833063

Introduction

Mathematics, traditionally instructed within standardised frameworks that prioritise abstract reasoning, logical deduction, and symbolic representation, is often perceived as a universal and culture-neutral discipline. Ethnomathematics research demonstrates that mathematical concepts are deeply embedded in cultural experiences, traditions, and perspectives (D'Ambrosio, 1985; Rosa & Orey, 2016). Ethnomathematics posits that each culture develops its unique methods of quantification, measurement, classification, and problem-solving to address practical needs. In culturally diverse nations such as India, this viewpoint can render mathematics education more inclusive, relevant, and enduring.

Sustainable mathematics education fosters culturally and environmentally relevant learning, equipping students with the knowledge to address local and global challenges. According to UNESCO (2017), sustainable education fosters critical awareness and action for cultural and ecological balance through cognitive, social, and ethical learning. Ethnomathematics connects indigenous knowledge systems with formal mathematical education, allowing students to perceive mathematics as a dynamic practice rather than an abstract notion (Rosa, Orey, & Alangui, 2017).

The Mizo tribe of Northeast India integrates mathematics into weaving, architecture, land surveying, agriculture, and communal commerce. These strategies reveal implicit mathematical reasoning in symmetry, geometry, proportion, and estimation, which formal curricula generally neglect. The indigenous spatial awareness, patterns, and quantitative understanding of the Mizos may enhance the relevance of mathematics teaching in relation to students' experiences. Incorporating ethnomathematical concepts in education aids global initiatives to decolonise knowledge and pedagogy. This initiative prioritises local knowledge systems and guarantees that education honours the epistemic diversity of human cultures (Rosa & Orey, 2019).

Meaning of Ethnomathematics

In the 1970s, Brazilian mathematician Ubiratan D'Ambrosio introduced the word ethnomathematics, combining ethno (ethnic groups), mathema (to elucidate, understand, and acquire knowledge), and tics. D'Ambrosio (1985) defined ethnomathematics as the examination of culturally unique mathematical concepts and methodologies. It includes the methods by which diverse cultures quantify, assess, categorise, create, discover, engage with, and elucidate phenomena according to their perspectives. So ethnomathematics highlights that mathematical knowledge is shaped by social and historical contexts, thereby expanding the conventional definition of

mathematics. Ethnomathematics comprises the study and pedagogy of mathematics (Rosa and Orey, 2011). It examines mathematical principles within cultural activities, artefacts, and traditions. It links formal mathematical education to students' real-world experiences that encourage inclusivity and significance. Ethnomathematics emphasises the diverse mathematical systems across various nations that fulfil distinct social, environmental, and philosophical needs.

Mathematical knowledge is intricately connected to practical life, as Gerdes (1998) characterised ethnomathematics as "the mathematics that evolves in response to the challenges presented by the activities of a cultural group." Indigenous communities may employ complex measurement systems for land, time, and trade without symbols or written language. These systems show a great degree of organisation, logic, and consistency in mathematical reasoning, but academic definitions might differ.

Importance of Ethnomathematics

Ethnomathematics is essential for enhancing mathematics education by linking mathematical concepts to students' cultural contexts and daily activities. It acknowledges that mathematical knowledge is not simply universal in form but is integrated into the lived experiences of diverse cultural groups, manifested through patterns, measures, architecture, handicrafts, trade, and ecological knowledge (D'Ambrosio, 2001). When students engage with mathematics in culturally relevant circumstances, the learning experience becomes more significant and validating of their identities, hence enhancing motivation and conceptual comprehension (Rosa & Orey, 2016). Ethnomathematics promotes inclusive pedagogy by recognising indigenous knowledge systems and assisting educators in incorporating local wisdom into formal curriculum activities, thereby advancing equality and social justice in mathematics classrooms (Barton, 2008). It acts as a link between traditional practices and formal mathematical concepts, allowing learners to perceive mathematics as a dynamic activity shaped by social and historical contexts rather than merely a collection of abstract regulations (Gerdes, 1998). Culturally responsive mathematical education equips students for sustainable thinking by associating problem-solving with practical community activities, particularly those related to resource management and sustainability. From this viewpoint, ethnomathematics develops appreciation for cultural diversity while improving mathematical literacy and promoting sustainability-oriented principles. It teaches students to recognise the significance of mathematics in preserving heritage, reinforcing identity, and developing contextually relevant problem-solving strategies. By viewing culture as a significant gateway to mathematical reasoning, ethnomathematics emerges as a transformative teaching methodology that enhances comprehension, expands engagement, and promotes a more understanding

and sustainable viewpoint on mathematics education. Ethnomathematics enhances mathematics education by connecting concepts to students' cultural backgrounds and everyday experiences. Mathematical knowledge is intricately connected to the lived experiences of various cultural groups via patterns, measurements, architecture, handicrafts, commerce, and ecological understanding. D'Ambrosio (2001)

Culturally appropriate contexts enhance the significance of mathematics and strengthen identity, hence increasing motivation and conceptual comprehension (Rosa & Orey, 2016). Validating indigenous knowledge systems and empowering educators to integrate local wisdom into formal curriculum activities promotes inclusive pedagogy, equity, and social justice in mathematics classrooms (Barton, 2008). It links traditional practices to formal mathematical concepts, enabling students to view mathematics as a dynamic activity influenced by social and historical contexts rather than merely a set of abstract principles (Gerdes, 1998). Culturally responsive mathematical education connects problem-solving to real-world communal activities, including resource management and ecological balance, to promote sustainable cognition.

Teaching Learning of Mathematics

The teaching and learning of mathematics are most effective when they acknowledge learning as a process of meaning-making influenced by the learner's culture, experience, and environment. Conventional methods that prioritise rote memorisation frequently alienate students from mathematical reasoning, whereas culturally relevant education facilitates the connection of concepts to their life experiences and pre-existing knowledge (Bishop, 1991). Constructivist approaches assert that learners actively develop mathematics comprehension through discussion, inquiry, and contextual problem-solving tasks, rather than through passive knowledge consumption (Vygotsky, 1978). A classroom that encourages discussion allows students to express their reasoning processes and develop a greater sense of ownership over their learning (NCTM, 2014). Instruction containing practical applications increases relevance and retention. When educators integrate students' community-oriented mathematical concepts into classroom activities, learners perceive mathematics as a practical experience rather than a separate academic discipline (Rosa & Orey, 2016). This relationship enhances confidence and reduces mathematics anxiety by validating cultural modes of reasoning. The evaluative function of assessment is similarly significant: formative feedback and low-stakes evaluation foster persistence and metacognition (Black & Wiliam, 1998).

Technology is revolutionising classroom engagement by facilitating various representations, simulations, and exploratory learning settings that assist students in

dynamically visualising and testing mathematical relationships (OECD, 2021). When technology is integrated with cultural significance and conceptual comprehension, students experience mathematics as meaningful and applicable in real-world contexts. In this regard, excellent mathematics pedagogy serves as an important foundation for sustainability thinking, as it fosters problem-solving skills relevant to environmental, social, and community-oriented decision-making.

A pedagogical approach that emphasises culture, reasoning, and identity equips learners to manage abstract computing while also understanding mathematics as a human pursuit with ethical, ecological, and social relevance. This method strongly connects with ethnomathematics and establishes a framework for sustainable mathematics education that is locally rooted, socially sensitive, and globally relevant.

Culture and Mathematics: An Ethnomathematical Perspective

The multidisciplinary topic of ethnomathematics examines the connection between mathematics and culture, focusing on how various civilisations acquire and apply mathematical knowledge in their day-to-day activities (D'Ambrosio, 1985). By recognising that mathematical thought may take many different forms across cultural boundaries, this viewpoint challenges the conventional Eurocentric understanding of mathematics (Barton, 1996). A rich example of ethnomathematics may be found in the ancient customs, agricultural systems, weaving patterns, and numerical ideas that are ingrained in the cultural history of the Mizo people, an indigenous group in Northeast India. This study looks at the ethnomathematical components of Mizo culture, emphasising how their customs, social institutions, and everyday activities are entwined with mathematical knowledge.

Due in large part to the work of Ubiratan D'Ambrosio (1985), who emphasised that mathematics is a result of social and cultural settings rather than a universal, culture-free subject, ethnomathematics became a recognised topic of study in the late 20th century. In order to incorporate them into a more comprehensive mathematical education, ethnomathematics aims to identify the mathematical practices of many ethnic groups, especially indigenous populations (Rosa & Orey, 2011). Given that every community has distinct methods for measuring, quantifying, and solving problems, this method encourages cultural inclusion in mathematics education (Powell & Frankenstein, 1997).

The Mizo people, predominantly located in the Indian state of Mizoram, have a unique cultural identity influenced by their historical background, language, and traditions. Their traditional knowledge systems, encompassing weaving, agriculture, and folklore, embody implicit mathematical notions that demonstrate their cognitive

and practical interaction with mathematics (Lalchhunga,2018). A notable instance of ethnomathematics in Mizo culture is shown in their traditional weaving patterns. Mizo women are celebrated for their elaborate textile designs, featuring geometric symmetries, numerical patterns, and spatial logic (Zama, 2013). The Puan, a traditional Mizo shawl, has repeated geometric designs that illustrate a mastery of transformational geometry, encompassing translations, cycles, and reflections (Lalrinawma,2015).

The weaving process necessitates mathematical reasoning, including thread counting, symmetry preservation, and proportion calculation. The weavers employ a base-5 counting method for loom setup, illustrating a pragmatic numerical system tailored to their requirements (Chhakchhuak, 2017). Also, the colour patterns in Mizo textiles adhere to combinatorial arrangements, wherein weavers instinctively utilise permutations and combinations to produce visually appealing designs (Zama, 2013). This indicates an inherent comprehension of discrete mathematics, although not explicitly expressed in Western mathematical terminology.

Ethnomathematical Approach for Enhancing Teaching–Learning Mathematics

The ethnomathematical approach offers an inclusive and culturally grounded framework for improving the teaching and learning of mathematics. It recognizes that mathematical understanding is deeply connected to cultural experiences and everyday practices, and therefore, effective mathematics education must integrate learners' cultural realities into the curriculum. This approach moves beyond viewing mathematics as an abstract, universal language to understanding it as a human activity situated within diverse cultural contexts (D'Ambrosio, 1985). In essence, ethnomathematics allows learners to perceive mathematics not merely as a subject to be mastered but as a way of making sense of the world.

Applying ethnomathematics in education involves contextualizing mathematical concepts through local cultural practices. Teachers can identify mathematical ideas inherent in community life and use them as entry points for formal instruction. For example, in the Mizo context, weaving patterns can be used to teach geometry and symmetry, bamboo construction to demonstrate measurement and spatial reasoning, and traditional agricultural practices to explore data handling, ratios, and estimation. Culturally contextualized learning experiences bridge the gap between informal and formal mathematics, enhancing student motivation and comprehension (Rosa and Orey,2016).

The ethnomathematical approach also supports constructivist and experiential learning theories, which emphasize active engagement, exploration, and discovery.

Learners construct mathematical knowledge by interacting with their environment and community. Teachers act as facilitators who guide students in uncovering the mathematical principles embedded in local artifacts, games, and crafts. For instance, students might calculate the area of traditional huts using indigenous measurement units, analyze patterns in weaving to understand fractions, or simulate community trade to learn arithmetic operations. Such experiential learning fosters critical thinking and problem-solving, aligning with theories of cognitive development through social interaction (Piaget's, 1972; Vygotsky's, 1978)

Ethnomathematics transforms mathematics education into a cross-cultural dialogue, where learners critically examine how different societies conceptualize and use mathematical knowledge. (Barton,1996). To implement this approach effectively, teacher preparation programs must prioritize cultural competence and ethnopedagogical training. Educators need to develop skills in ethnographic observation, community collaboration, and curriculum adaptation to design lessons grounded in local contexts (Rosa & Orey, 2011). In Mizoram, this could include partnerships between schools and community artisans, farmers, and elders, who serve as cultural resource persons. By integrating such partnerships, mathematics learning becomes participatory, community-centered, and sustainable.

The ethnomathematical approach enhances teaching–learning by making mathematics culturally relevant, contextually meaningful, and socially transformative (D'Ambrosio, 1985; Rosa & Orey, 2011). It aligns with global educational goals that emphasize inclusion, cultural diversity, and sustainability as part of holistic mathematics pedagogy (Barton, 1996). For the Mizo tribe, this approach offers a path toward an education system that honors indigenous wisdom while equipping learners with the analytical skills necessary to thrive in a globalized world (Powell & Frankenstein, 1997). By weaving together culture and mathematics, ethnomathematics creates a more holistic and humane model of education—one that sustains both knowledge and identity (Rosa & Orey, 2011).

Discussion

The concept of ethnomathematics in sustainable mathematics education provides a holistic view of how cultural knowledge and academic learning create meaningful educational experiences (D'Ambrosio, 2001). As seen in the previous sections, ethnomathematics challenges the homogenisation of mathematical knowledge by promoting various mathematical traditions. Thus, it promotes diverse, inclusive, and sustainable mathematics education (Rosa & Orey, 2016). The ethnomathematical method also underpins transformative pedagogy, which teaches maths and fosters critical thinking and ethics. Freire (1970) believed education should empower students

to understand and change their society. Ethnomathematics helps students reflect on the cultural and historical aspects of mathematics. Students study maths and how knowledge systems change in response to social and environmental requirements by analysing community measuring or pattern-making processes.

Ethnomathematics also addresses education sustainability. UNESCO (2017) defines sustainable education as promoting cultural continuity, social fairness, and environmental care. By incorporating local wisdom and ecological knowledge into formal education, ethnomathematics supports these goals. Traditional Mizo agricultural cycles and communal resource-sharing systems teach children about efficiency, justice, and balance—essential sustainability characteristics. This improves their maths skills and fosters societal and environmental responsibility. Teachers' facilitation of ethnomathematical learning is a key issue. Teachers need math skills and cultural sensitivity to connect formal and informal knowledge systems. Reflective teaching that links students' cultural origins to academic objectives (Rosa and Orey, 2011). This may involve working with Mizo craftspeople, community elders, or farmers as co-educators and knowledge carriers. Collaboration turns the classroom into a community of practice where learning is shared and knowledge flows between school and society.

Ethnomathematics' inclusion into mainstream education encounters structural obstacles. Standardised assessment and global benchmarks sometimes trump cultural contextualisation in curriculum frameworks. Educational planners must recognise ethnomathematics' cognitive and cultural benefits to overcome these limitations. Ethnomathematics and formal mathematics may coexist if curricula are flexible enough to allow local changes (Barton,1996; Gerdes, 1998). Also worth examining is ethnomathematics' worldwide significance. Ethnomathematics protects thinking and behaviour from cultural homogenisation in a globalised world. It supports worldwide educational changes that value multiculturalism, inclusivity, and indigenous knowledge (Rosa & Orey, 2019). Ethnomathematical principles in education can help students balance local wisdom and global scientific thinking, which is vital for sustainable development.

Ethnomathematics in schooling represents cultural resurgence and intellectual empowerment for the Mizo tribe. It provides a framework for integrating traditional knowledge with current science, supporting the idea that learning should benefit individuals and society. By analysing puan weaving patterns or using ancient land-measurement systems, students build technical skills and cultural awareness while learning maths.

Finally, ethnomathematics can change mathematics instruction. Ethnomathematics

promotes sustainable, inclusive, and meaningful learning by combining cultural relevance with intellectual rigour. It offers a Mizo education approach that honours indigenous history and prepares students for global citizenship. Ethnomathematics recognises that mathematics is a universal human endeavour articulated via diverse cultures. Sustainable mathematics education must educate pupils on what to study and how to learn in ways that preserve knowledge and culture.

Conclusion

As a new and transformative field, ethnomathematics connects culture, education, and sustainability. It fundamentally shows that mathematics is not a culture-neutral discipline but a sociocultural manifestation of human reasoning moulded by history, environment, and social practices (D'Ambrosio, 1985; Rosa & Orey, 2016). An examination of the Mizo tribe reveals how daily activities like weaving, farming, architecture, and community organisation are deeply connected to mathematical reasoning, embodying concepts of geometry, symmetry, and measurement (Zama, 2013; Lalrinawma, 2015). These culturally ingrained techniques provide a foundational framework for teaching mathematics in meaningful, relatable, and sustainable ways. Teachers can make mathematics more engaging and relevant by strategically relating abstract concepts to students lived experiences and community practices (Rosa & Orey, 2016). For indigenous learners, such an approach includes cultural pride and identity, as it formally recognises the relevance of their heritage within modern schooling (Barton, 2008). Thus, ethnomathematics transcends being a mere pedagogical tool; it is a vehicle for promoting social justice, equity, and inclusion in the classroom by validating diverse knowledge systems.

Also, ethnomathematical principles align closely with the goals of Education for Sustainable Development (UNESCO, 2017). Culturally grounded pedagogies encourage lifelong learning, community participation, and ecological awareness. By combining formal mathematical reasoning with local wisdom—such as sustainable agricultural practices or communal resource-sharing systems—students learn to think critically and act responsibly for their environment and society (Rosa, Orey, & Alangui, 2017). In this way, ethnomathematics links intellectual growth with moral and cultural duty, providing a holistic framework to comprehend and practice sustainability.

However, realising the full potential of ethnomathematics requires systemic transformation. Teacher training programs must be redesigned to incorporate cultural knowledge, ethnographic methodologies, and skills for curricular customisation (Rosa & Orey, 2011). Policymakers and curriculum designers bear the responsibility of ensuring that indigenous knowledge systems are authentically included in mainstream

curricula. This integration can be significantly strengthened through collaborative partnerships between schools, communities, and local experts, ensuring that education remains internationally competent while being deeply locally meaningful.

In conclusion, ethnomathematics promotes a sustainable mathematics education that celebrates variety, respects indigenous wisdom, and develops learners who can adeptly relate theory to practice. In the Mizo context, it provides a viable path to harmonise traditional and modern learning. Therefore, ethnomathematics is not merely an educational innovation but a moral and cultural imperative, affirming that a genuine comprehension of mathematics emerges from seeing it through the intertwined lenses of our culture, community, and shared humanity.

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Youth and Covid-19: Mental Health Challenges

K.C. Lalchhandami*
C. Devendiran**

Abstract

The COVID-19 pandemic created a major public health crisis that affected education, family life, and the mental health of young people. While the early response focused on controlling the virus, research shows that students faced serious psychological challenges when they lost access to in-person classes, friends, and normal support systems (Hossain et al., 2020; Jones et al., 2021). This article explores these challenges through five case studies of college students in Aizawl, India. The studies showed that stressors such as family conflict, crowded homes, pre-existing mental health issues, substance use in the household, and poverty increased risks of anxiety, insomnia, low mood, and disengagement from studies. The findings connect these experiences with research on adolescent well-being, online learning barriers, and school–community partnerships (Lee, 2020; Aucejo et al., 2020; Hertz & Barrios, 2021). The article recommends coordinated actions that put student mental health at the center of educational planning. It concludes with practice and policy suggestions to help students build resilience during long-term crises (Deci & Ryan, 2008; Ryff, 2014; Ross et al., 2020).

Keywords: *Covid-19; youth; mental health; anxiety; education disruption; qualitative case study*

Introduction

During the COVID-19 outbreak, young people faced many mental health problems. They often felt worried and afraid about catching the virus or their family members getting sick. Staying at home for long periods made many feel sad, lonely,

*K.C. Lalchhandami, Research Scholar, Department of Social Work, Mizoram University. Email: chhan2307@gmail.com, Ph: 9774002317
**Prof. C. Devendiran, Professor Department of Social Work, Mizoram University. Email: devbhupa@gmail.com

and less motivated. School closures and online classes added stress, especially for students without good internet or study resources. Constant news about COVID-19 also caused more health worries. Some young people faced family conflicts at home, which made them feel more stressed. Many also became irritable, had trouble sleeping, or spent too much time on social media. In some cases, they even turned to risky behaviors like substance use to cope with stress. These challenges show that the pandemic had a strong effect on the mental health of youth and that they need more support to deal with such situations.

At the same time, COVID-19 reshaped everyday life around the globe in a matter of weeks. In addition to acute health risks, the secondary effects of lockdowns and school closures were profound for young people who rely on educational institutions not merely for learning but also for structure, social connection, and developmental support (Lee, 2020). Globally, closures displaced over a billion learners and forced a rapid pivot to online modalities (Aucejo et al., 2020). This transition magnified pre-existing inequalities in device ownership, internet connectivity, and household space; many students faced the double bind of academic expectations without the physical or psychological conditions conducive to study (Bao, 2020; Anwar & Adnan, 2020; Hasan &Bao, 2020).

Further, Psychologically, uncertainty about health, examinations, and future prospects created a fertile context for anxiety, depressive symptoms, and sleep disturbance (Asmundson& Taylor, 2020; Hossain et al., 2020). Review evidence points to a broad elevation of mental health difficulties among adolescents during the pandemic, with particular risks for those with existing vulnerabilities or constrained access to support (Jones et al., 2021; YoungMinds, 2020). In the Indian context, survey-based studies show that disruptions were especially severe for university students and youth from lower-income households, who experienced learning loss, motivational decline, and distress related to an ambiguous return to normalcy (Kapasia et al., 2020; Debbarma&Durai, 2021).

Mizoram has strong community and faith-based networks that typically buffer hardship; however, the sudden curtailment of public gatherings and campus life challenged these protective mechanisms. Against this backdrop, the present article uses qualitative case studies to document the lived experiences of five students in Aizawl and to analyze the layered determinants of their well-being. We integrate their narratives with current research to derive actionable implications for colleges, families, and community organizations (Hertz & Barrios, 2021; World Health Organization, 2020).

Review of Literature

COVID-19

According to the World Health Organization (2020), the COVID-19 outbreak became a major global health crisis in early 2020. While there have been epidemics in the past, this was the first time in recent history that strict confinement measures were used to control a pandemic. However, only a few studies have looked at how staying at home during COVID-19 affected the mental health of children and adolescents.

Orgilés et al. (2020) noted that many reports have raised concerns about increased mental health problems and anxiety during the pandemic, especially among people with existing health conditions (Hao et al., 2020; Kosir et al., 2020; Mukhtar & Mukhtar, 2020; Tsamakis et al., 2020).

Some research has shown encouraging results, suggesting that young people are less likely to get infected with COVID-19 and usually have milder symptoms if they do (Lee, Yu, Chen, Huang, & Hsueh, 2020; Liao et al., 2020).

At the same time, Hawke et al. (2020) emphasized that children and adolescents with existing health problems may worry more about the virus, which can increase their risk of mental health difficulties. Health-related anxiety also became more common during the pandemic (Asmundson & Taylor, 2020). Finally, reduced face-to-face contact with friends may have caused loneliness, particularly among children and teenagers in middle childhood and adolescence (Jones, Mitra, & Bhuiyan, 2021).

The Indian and international literatures reinforce these patterns. Analyses of school closures show marked effects on engagement, expectations, and academic confidence among university students (Aucejo et al., 2020; Lee, 2020). Studies of remote learning during the pandemic indicate that unprepared digital infrastructures, minimal instructional redesign, and varying home supports created inequities in learning opportunities (Bao, 2020; Cook, 2009; Hasan &Bao, 2020). For adolescents, social isolation and boredom are established risk factors for emotional and behavioral problems, amplifying the need for structured leisure and supervised peer contact (Wegner &Flisher, 2009).

Reviews focused on youth report elevated prevalence of anxiety and depressive symptoms during COVID-19, with particular concern for those with existing vulnerabilities or those living in stressful home environments (Hossain et al., 2020; Jones et al., 2021). In India, findings from West Bengal and the Northeast point to learning loss, anxiety about assessments, and frustration with digital modes, especially among students from low-income households (Kapasia et al., 2020; Debbarma&Durai, 2021). Reports from youth-centered organizations such

as YoungMinds further highlight service gaps and the value of accessible, youth-friendly supports (YoungMinds, 2020). At the macro level, labor market shocks heightened family stress, with sharp rises in unemployment during the initial months of the pandemic (Kochhar, 2020).

Youth and Mental Health

Ross et al. (2020) explained that adolescent well-being is important both for individuals and for society. Adolescence is also a crucial stage of life when many skills and factors that affect lifelong well-being are developed. The COVID-19 pandemic and its related challenges have highlighted the need for strong systems to support adolescent well-being.

Hertz and Barrios (2021) found that emotional responses to COVID-19, such as fear of infection, worry, and stress, were linked to negative mental health outcomes in young people. These included depression, anxiety, obsessive-compulsive disorder (OCD) symptoms, physical complaints, and more behavior problems.

Only a few studies have been carried out at the regional or state level (Deori et al., 2020; Debbarma & Durai, 2021; Lianhmingthangi et al., 2020; Zothantluanga et al., 2020). Very limited research has focused specifically on youth in Mizoram and Northeast India with regard to Mental health challenges during covid -19. There is a lack of literature on coping strategies and social support in this regional context as well. This review of existing literature highlights the need to understand and study the mental health challenges of youth during the pandemic.

Statement of the Problem

Early data from India and other countries show that COVID-19 increased many problems for teenagers' mental health, such as feeling lonely, family stress, disruption in school, and financial worries (Hossain et al., 2020; Kapasia et al., 2020). Closing schools stopped face-to-face learning and also limited contact with supportive adults—like teachers, counsellors, and mentors—who often notice early signs of trouble. At home, job loss and reduced income caused more tension, especially for students living in small or shared spaces. Lack of privacy made it harder to focus or rest (Kochhar, 2020; Wegner & Flisher, 2009). This study looks at how these challenges affected the daily lives of students in Aizawl, including their learning, emotions, and feelings about the future.

Objectives of the Study

1. To document the challenges faced by college-going students in Aizawl during COVID-19 lockdowns and campus closures.
2. To identify the academic, familial, social, financial, and emotional stressors shaping students' learning and development.
3. To propose institutional and policy measures for promoting mental health and educational continuity among youth.

Data and Methodology

This study adopts qualitative research approach aimed at exploring the students' experiences. A case study design was employed, utilizing semi-structured interviews to collect data from five college-going students (both male and female) who consented to participate were interviewed using semi-structured guides. Purposive selection was used to include diversity in household composition and socio-economic circumstances. Interviews covered themes of academic adaptation, family dynamics, housing conditions, health concerns, and coping strategies. Case studies were compiled from first-person accounts, and analysis used thematic coding to identify cross-cutting patterns relevant to psycho-social well-being and educational participation. The interviews were conducted in both the local language and English; the responses in Local language were subsequently translated and transcribed into English for analysis

Data Analysis

The collected data from semi-structured interviews were analyzed by using a thematic analysis approach. Case studies were compiled from first-person accounts, and analysis used thematic coding to identify cross-cutting patterns relevant to psycho-social well-being and educational participation.

Validity

To ensure the validity of the data, measures like conducting interview in a semi-structured and consistent manner, ensuring that all the respondents were asked the all questions in sequent.

Ethical consent

The study was conducted in accordance with the ethical guidelines for research that is involving with the human subjects as given by the department of Social Work.

The case studies reported here were collected with informed consent and have been paraphrased to protect confidentiality.

Findings of the Study

Case 1 Ms (Ruati): Family Conflict and a Parent's Alcohol Dependence

Ms. Ruati 20-year-old woman living with her parents and three younger siblings described a sharp deterioration in the home atmosphere during lockdown. Her father, a daily-wage construction worker with longstanding alcohol dependence, lost his income and experienced withdrawal when liquor became scarce. Hospital visits occurred when symptoms grew severe. Financial strain compounded irritability; arguments between her parents became frequent, family meals were irregular, and the student felt trapped in an environment devoid of calm. With limited opportunities to leave home or meet friends, she developed insomnia, persistent worry, and pronounced mood swings. The account highlights how economic shock and substance dependence in a caregiver can interact to destabilize the household and erode a young person's capacity to study and regulate emotion (Whittle et al., 2013; Hossain et al., 2020).

Case 2 Mr. Ruata: Overcrowded Housing and Cognitive Overload

Mr. Ruata 22-year-old man shared a small rented flat with parents, grandparents, an older sister, and two younger brothers. With only one bedroom and a compact living area, the family had long coped with crowding; confinement turned this into unrelenting proximity. The student reported constant noise, a lack of privacy, and no dedicated study space. He experienced difficulties focusing on readings, avoided previously enjoyable music, and described fluctuating motivation. The narrative illustrates how material constraints—especially inadequate space—have cognitive and emotional consequences for students tasked with online learning and self-directed study (Anwar & Adnan, 2020; Wegner & Flisher, 2009).

Case 3 Ms. Pui: Pre-existing Mental Illness in Conditions of Restricted Care

Ms. Pui 23-year-old woman with a history of anxiety and post-traumatic stress disorder recounted an escalation of symptoms during lockdown. Despite adequate physical space at home, she could not access regular in-person psychiatric care, and telehealth options were limited. She experienced palpitations, headaches, intrusive suicidal thoughts, and disordered sleep. Faith-based practices such as prayer offered partial relief but did not suffice. Though she did not attempt self-harm, the intensity of ideation was alarming. The case underscores the vulnerability of youth with pre-existing disorders when routine services are disrupted, and it emphasizes the need for continuity of care during emergencies (Hawke et al., 2020; Young Minds, 2020).

Case 4 Mr. Mama: Substance Use in the Household and Secondary Trauma

Mama 21-year-old nursing student lived with her mother and two elder brothers, both injecting drug users and school dropouts. The death of her father in early childhood had left the mother as sole provider. Lockdown disrupted substance supply, leading her brothers into withdrawal and precipitating conflict. The student's sleep became fragmented, her temper shortened, and she coped by excessive phone use that interfered with study. Worries about the family's future weighed on her constantly. This case exemplifies secondary trauma among non-using household members and the spillover of addiction-related crises into academic functioning (Hossain et al., 2020; Whittle et al., 2013).

Case 5 Mr. Kima: Poverty, Caregiving Burden, and Limited Connectivity

Mr. Kima 21-year-old man resided with grandparents and siblings in a small rented home with two bedrooms and a combined kitchen–living area. Both grandparents, elderly and chronically ill, required significant care, much of which fell to his mother. Food insecurity flared at times; the family relied on local task force assistance. Without Wi-Fi at home, mobile data had to be conserved for online classes, limiting social connections. The student reported prolonged worry, palpitations, and sleeplessness; his concentration faltered, and the desire to leave home to "clear the mind" was difficult to satisfy. The intersection of poverty, caregiving responsibilities, and digital exclusion illustrates how multiple disadvantages converge to threaten educational continuity and mental health (Kapasia et al., 2020; Debbarma &Durai, 2021).

Analysis of the Case Studies

Across cases, five interlinked themes emerged. First, family conflict rose under the combined pressures of income loss and confinement. In households with alcohol or drug dependence, withdrawal and instability heightened volatility, leaving students exposed to unpredictable affective climates (Whittle et al., 2013). Second, housing constraints—especially overcrowding and the absence of quiet study space—impaired concentration, increased irritability, and made sleep hygiene difficult. The cognitive load of learning in a noisy environment, without boundaries between school and home, was repeatedly noted (Anwar & Adnan, 2020; Wegner & Flisher, 2009).

Third, students with pre-existing mental health conditions faced escalations in symptoms amid service disruptions. Loss of routine care, interruptions in medication, and limited access to counselling increased risk; the perceived impossibility of help worsened despair (Hawke et al., 2020; Young Minds, 2020). Fourth, substance use in the family had ripple effects: when addicted members could not access substances, their

withdrawal and distress were externalized through conflict and neglect, deepening the burden on other household members (Hossain et al., 2020). Finally, poverty and food insecurity intersected with the digital divide. Students without reliable devices or broadband struggled to keep up; conserving mobile data for lectures reduced access to friends, recreation, and informal support. These constraints translated into feelings of entrapment and fatigue (Kapasia et al., 2020; Hasan & Bao, 2020).

Discussion

These case studies illustrate how structural determinants like housing, poverty, and health services can shape the emotional climate in which learning takes place. When a parent's income disappears and substance dependence flares, the home becomes less predictable; for students, the demands of online coursework are more difficult to meet. Where there is only one room to share, the boundary between study, rest, and family life dissolves. These conditions are not idiosyncratic; they mirror trends observed in multiple settings in India and abroad (Aucejo et al., 2020; Kapasia et al., 2020).

The narratives also demonstrate that access to care is pivotal. For the student with PTSD, symptom escalation was tied to the inability to consult clinicians. This aligns with broader concerns that mental health services were diverted, paused, or moved online without sufficient preparation or coverage, leaving many young people adrift (McGorry, 2020; Young Minds, 2020). At the same time, the protective role of families and communities remains crucial. Supportive parenting and optimistic family communication are associated with lower depression and better coping among adolescents (Piko et al., 2013; Whittle et al., 2013).

Educationally, the shift to online formats requires more than technology; it demands instruction adapted to students' circumstances. Evidence from Peking University and other institutions points to the importance of clear expectations, chunked content, regular check-ins, and assessment flexibility (Bao, 2020; Cook, 2009). For students lacking internet or devices, offline alternatives and asynchronous options are equity essentials (Hasan & Bao, 2020; Kapasia et al., 2020).

Suggestions for Policy and Practice Implications

An integrated response to support youth mental health during the COVID-19 pandemic is needed at multiple levels. At the individual level, students should have access to confidential counselling through college counselling cells, tele-counselling, and after-hours support (YoungMinds, 2020; McGorry, 2020). Workshops on self-care, such as sleep hygiene, stress management, and digital wellness, can help

build coping skills, while mindfulness and peer support activities may be included in tutorials (Ye et al., 2020). Flexible deadlines and alternative assessment formats should also be provided for students with heavy family responsibilities (Aucejo et al., 2020). At the family level, counselling and mediation services should be available for families experiencing conflict, including crises related to substance use, with support from community organizations (Whittle et al., 2013; Hossain et al., 2020). Parents should also be guided on how to support study routines, validate emotions, and recognize signs of distress (Piko et al., 2013). At the institutional level, faculty and staff can be trained in basic mental health first aid and referral processes, while adopting classroom practices that normalize help-seeking (Hertz & Barrios, 2021). Online learning should be redesigned with equity in mind, using lightweight materials, clear pacing, and offline packets where needed (Bao, 2020; Hasan & Bao, 2020). Institutions should also create safe, socially distanced study spaces for students who lack quiet rooms at home (Lee, 2020). At the community level, schools should collaborate with churches, youth clubs, and NGOs to extend outreach, identify at-risk students, and provide holistic support (Hertz & Barrios, 2021). Finally, at the policy level, education recovery plans must integrate student mental health supports, with funding allocated for counsellors, social workers, and training programs (Ross et al., 2020; WHO, 2020).

Implications for Social Work Practice

Social workers often work with schools, health services, and families, so it is important to provide well-coordinated support. Colleges should have counselling units connected to hospitals, helplines, and trusted NGOs, so students can get the right help easily. Social workers can also create short group programs to teach students skills for managing emotions and solving problems.

Conclusion

This study shows that when education shifts to home during a crisis, existing inequalities become very important in determining which students can keep up and which struggle. Factors like family conflict, crowded homes, pre-existing mental health issues, substance use in the household, and poverty make it harder for young people to manage their emotions and focus on learning. However, these challenges also suggest solutions. Coordinated counselling, teacher training, partnerships between schools and communities, and inclusive teaching methods can help protect students' well-being and support temporary resilience during long disruptions (Hertz & Barrios, 2021; Ross et al., 2020). Focusing on mental health in education is not optional—it is essential for preparing the next generation for adulthood in an uncertain world (Deci & Ryan, 2008; Ryff, 2014; WHO, 2020).

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Contribution of Government recognised Non-Governmental Organization (NGO) Libraries to improve Users' Engagement practices in Aizawl City, Mizoram: A Study

Vanlalfeli*

Abstract

The present paper discussed about the user engagement practices by the government recognised Non-Governmental Organization (NGO) libraries of Aizawl city. It is a survey-based research and questionnaire method was used and distributed among 105 NGO libraries and 94 were responded. The findings of the study discovered that the majority of them lack a librarian, rarely conduct feedback surveys and do not provide staff training for user interaction. Among the various ways users have contributed to the enhancement of library services, orientation programs rank top among the categories. The study suggests that all the libraries should receive consistent funding, recruit professional librarians or library staff and more training sessions and conclude that there needs to be more development in different aspects for more engaged users.

Keywords *– User engagement, community engagement, User engagement practices, public library, Non-Governmental Organization libraries*

1. Introduction

The emotional, cognitive, and behavioural bond that exists between users and resources and shapes how they respond to services is known as user engagement. Since increased interaction denotes higher product value, it is correlated with profitability. Because library patrons are precious resources, information providers should do more than just display content; they should also offer engaging experiences. When there is no user involvement in a choice environment, no resources are used and no information is transmitted, which makes people look for alternatives. Despite the existence of libraries, there have been significant changes in the way people look for information over time. The people who work in these libraries are essential to setting

*Vanlalfeli: Ph.D Scholar, Department of Library & Information Science, Mizoram University. Email:vanlalfeli25@gmail.com, Ph: 8974434931

a clear goal for increasing patronage. Resources may occasionally be limited, but it is crucial to investigate ways to maximize the use of the resources that are already accessible. To keep patrons, library staff must quickly prove the value of the service.

2. Public Libraries in Mizoram: An Overview

Public libraries are social entities that provide free information access to the general public in India. The public library gives individuals access to a wide range of knowledge, opinions, and ideas, which greatly aids in the development and maintenance of a democracy. Aizawl is the capital of the state of Mizoram, which is situated in northeastern India. On January 6, 1993, the Mizoram Public Libraries Bill was approved. The Government of Mizoram has not yet been able to put the Mizoram Public Libraries Act, 1993 into effect due to a lack of funding and other problems.

In Mizoram, public libraries are divided into three categories: state, district, and village. State and district libraries are run by the state government, while village libraries are run by Non-Governmental Organizations (NGOs). The present study focusses on the village libraries under which 512 NGO libraries have been recognized under the state government in Mizoram and among these NGO libraries an association known as Young Mizo Association (YMA) runs majority of the library till date. In the Aizawl City, there are 105 NGO libraries which have been selected for the study.

3. Review of Literature

AV & Mahjeet (2025) evaluated the communities' involvement in the community engagement program and services provided by Kannur, Kerala's public libraries among the various reader groups, including the Balavedhi, Yuvajanavedhi, Vanithavedhi, and Vayojanavedhi communities. Data was gathered from library patrons using a well-designed questionnaire and from librarians through interviews. To compare the difficulties encountered by users in various community groups, the Chi-Square test was used. The study found out that the majority of patrons utilize the community services offered by public libraries and suggest that they also need extra services like free Wi-Fi, access to ICT, and more e-governance tools.

Bhanu & Dhanyasree (2025) concentrate on the civic engagement programs implemented by the State Library Council in Kerala, India whether modern public libraries and how these establishments support community participation. In Kerala, the council has established a number of community forums that target particular groups of people who participate in the library's programming according to their needs. By distributing questionnaire to 111 public librarians, librarian interviews and in-person

library observations were conducted. The results demonstrate that when village libraries create and manage community forums that meet the various requirements of their customers, they play a significant role in planning civic engagement programs.

Haider et.al. (2025) identify how users perceive digital technology and the behaviours that go along with it by combining the technological acceptance model, digital engagement, and service value in Pakistan public libraries. Users of public libraries in Pakistan's Khyber Pakhtunkhwa Province made up the study sample, which was selected using a cross-sectional survey technique. In order to test the suggested hypotheses, the confirmatory factor analysis of the gathered data was conducted using Smart PLS-4. The results demonstrated how crucial personnel civility, resource accessibility and availability, and collection quality are in determining service value.

Mutuma et. al. (2024) investigated the difficulties in attracting users to the libraries of Kenya Methodist University and Meru University. The results of a descriptive study revealed that public catalogues and online databases were used effectively, but that e-journals and institutional repositories presented challenges because of their poor digital quality and usability. According to the study's findings, user engagement necessitates enhancements to digital platforms' eminence and serviceability.

Sharma (2024) examined library programs, looked into user motivations, and offered evidence-based tactics to increase user involvement. By meeting user needs and fostering a thriving community around them, it seeks to prepare libraries to thrive in the digital age and continue to be significant hubs for connection, education, and discovery. The study's findings provide valuable information that libraries may use to develop friendly environments, take use of contemporary abilities, and adapt to changing user behaviours.

Lee (2023) investigates how public libraries may support sustainability and community resilience in times of crisis. The study creates a strong link between libraries and community resilience by means of a thorough literature review and a case study of Taiwan's Kaohsiung Public Library. The report promotes a comprehensive strategy to address community needs during crises and highlights the significance of public libraries as agents of community resilience.

T. A. et. al. (2023) searched the literature thoroughly by dividing it into different titles, conclusions, and important takeaways. The results show that integrating social media into libraries improves user engagement and has advantages. However, it was determined that the absence of policies, a lack of skilled staff, and financial limitations were the main obstacles to a successful integration. Based on these results, a conceptual framework for effectively integrating social media into libraries is put forth. It consists of four steps: study, adoption, implementation, and interaction.

These steps include determining the goals of the library, evaluating its resources, creating and implementing policies, establishing a social media strategy, and assessing its performance in order to improve user engagement.

4. Objectives

The objectives of the study are to:

i) Understand the present usage of NGO libraries and the services they provide.

ii) Analyse the ways in which the NGO libraries being studied engage the users.

iii) Recognize challenges NGO libraries face and offer solutions to improve user engagement.

5. Research Methodology

A semi-structured questionnaire was used to collect data from respondents for this survey-based research. Every NGO Library in Aizawl City, Mizoram, has received a questionnaire. 94 (89.52%) of the 105 questionnaires that were distributed were answered, and the data was analysed using Microsoft Excel.

6. Data Analysis and Interpretation

a) Library administration of NGO Libraries in Aizawl City

Sl. No.	Category	No. of Response (N=94)	Percentage
1	Librarian	14	14.89%
2	Library Sub-committee	76	80.85%
3	Others	4	4.26%

Table. 1 indicates that majority of the libraries i.e., 76 (80.85%) are administered by the YMA Library Sub-Committee members. This is mostly because it is considered as a voluntary work and the person on duty is detailed among the library committee members either week/month wise. 14 (14.89%) libraries have a Librarian while 4 (4.26%) libraries are run by different methods. It is clear that there is a need of proper librarian for the development of library administration.

b) Source of Finance

Table 2. Source of Finance

Sl. No.	Financial Source	No. of Response (N=94)	% within category
1	Branch YMA/Parent Organization	46	48.94%
2	Membership Fee	59	62.76%
3	Govt. Funding	3	3.19%
4	RRRLF Funding	39	41.49%
5	MP/MLA Fund	6	6.38%
6	Any other Source	0	0.00%

Table. 2 indicates that Branch YMA/parent Organization allocates funds to 46 (48.94%) libraries. Membership registration fee is collected by 59 (62.76%) libraries, Government funding is received by 3 (3.19%), RRRLF funding by 39 (41.49%) libraries and MP/MLA Fund is received by 6 (6.38%) libraries. It can be summed up that funding from Branch YMA/Parent Organization and more funding from RRRLF is a need of the hour for proper functioning and maintenance of the libraries.

c) Number of times library opens in a week

Table 3. No. of times library opens in a week

Sl. No.	No. of times	No. of Response (N=94)	Percentage
1	Once in a week	54	57.45%
2	Twice in a week	24	25.53%
3	Thrice a week	7	7.45%
4	Four times a week	2	2.13%
5	Five times a week	3	3.19%
6	Daily	0	0%
7	No Response	4	4.25%

From the Table. 3, it can be seen that 54 (57.45%) of the libraries remain opened once a week, 24 (25.53%) libraries are opened twice in a week. Moreover, 7 (7.45%) libraries are opened thrice a week, 2 (2.13%) are opened four times a week and 3 (3.19%) are opened five times a week. There is no response from 4 (4.25%) libraries. This analysis implies that libraries are opened very few within a week.

d) Library Automation

Table 4. Library automation

Sl. No.	Library automation	No. of Response (N=94)	Percentage
1	Fully Automated	4	4.25%
2	Partially Automated	10	10.64%
3	Not Automated	80	85.11%

The above table shows that only 4 (4.25%) are fully automated and 10 (10.64%) libraries are partially automated. The fact that the majority of the libraries 80 (85.11%) have not begun automation is regrettable.

e) Library services provided

Table 5. Library services provided

Sl. No.	Type of Library service	No. of Response (N=94)	% within category
1	Circulation	94	100.00%
2	Cataloguing	3	3.19%
3	Reading	36	38.30%
4	Reference	16	17.02%
5	Others	1	1.06%

It was observed after data analysis that every library offers circulation services. Reading service is provided by 36 (38.30%), 16 (17.02%) libraries offer reference services, and 3 (3.19%) libraries offer cataloguing services. Among the other type of library service provided the YMA library in Bethlehem offers documentation service which is 1.06%. It is clear that the libraries need to put more effort for improvement of the library services to engage users.

f) Use of social media for library user engagement

Table 6. Types of social media used

Sl. No.	Types of social media	No. of Response (N=94)	% within category
1	Facebook	42	44.68%
2	Instagram	8	8.51%
3	Whatsapp	67	71.28%
4	Any other	19	20.21%

From the Table 6, it can be seen that Whatsapp is used by majority i.e., 67 (71.28%), 42 (44.68%) of the libraries used Facebook, 8 (8.51%) libraries used Instagram. Other type of social media is used by 19 (20.21%) libraries.

g) Activities or extension programme performed for user engagement

Table 7. Activities/extension programme performed

Sl. No.	Category	No. of Response (N=94)	Percentage
1	Yes	41	43.62%
2	No	53	56.38%

The above table shows that 41 (43.62%) libraries have performed activities/extension programme while 53 (56.38%) libraries do not have any activity for user engagement.

h) User Engagement training programme for library staff

Table 8. User Engagement training programme for library staff

Sl. No.	Category	No. of Response (N=94)	Percentage
1	Yes	18	19.15%
2	No	76	80.85%

Table 8 makes it evident that only few libraries 18 (19.15%) have training programme for library staff while majority of the libraries 76 (80.85%) do not have at all.

i) How users are engaged in improving the library services

Table 9. Different ways users are engaged in improving the library services

Sl. No.	Category	No. of Response (N=94)	% within category
1	Orientation Programme	24	25.53%
2	Organizing Book Exhibition	5	5.32%
3	Essay and Quiz competition	2	2.13%
4	Best Volunteer Award	2	2.13%
5	Raising funds from different sources	7	7.45%
6	Best Library User Award	4	4.25%
7	Feedback Survey	6	6.38%

The above table shows that 24 (25.53%) have conducted Orientation Programme, raising funds from different sources is done by 7 (7.45%) libraries and feedback survey is done by 6 (6.38%). Book Exhibition has been organized by 5 (5.32%) libraries and Best Library User Award is done by 4 (4.25%) libraries. Essay and Quiz competition and Best Volunteer Award by 2 (2.13%) libraries respectively.

j) Problems: NGO libraries confront a number of issues, including low funding, poor facilities and equipment, limited internet and technology access, outdated and insufficient library resources, staff training requirements, and a shortage of qualified librarians and staff.

7. Findings

Most libraries do not have a librarian, and the majority are run by a volunteer organization called the Library Sub-committee. Memberships and the majority of library services are self-funded. Although a large number of libraries receive funding from RRRLF, others do not, and they use funds from the parent organization or branch YMA as the initial balance of their accounts. The automation rate is rather low, and most libraries are only open once a week. All of the NGO libraries provide the circulation service, however the low reading service indicates that patrons are not physically visiting the libraries. More than half of the libraries utilize WhatsApp for engagement activities, making it a popular social media platform for user contact. But most libraries do not teach their employees to engage with patrons. Orientation sessions are the most popular way for patrons to get involved in enhancing library services. One major obstacle to user involvement is that most libraries hardly ever perform feedback questionnaires.

8. Suggestions & Conclusion

Based on the findings it is suggested that the state government should take steps to boost state contributions to the RRRLF matching scheme so that more libraries can benefit from it, and libraries should be regularly collecting monthly library cess from the local community for more funding. To guarantee at least one regular employee in every library and to improve administration and service, all NGO libraries should hire professional librarians or library workers at a fair salary. The frequency of training sessions for library staff and committee members should be increased.

The tactics, events, and services intended to include users in the library's programs, services, and decision-making procedures are referred to as user engagement practices in public libraries. Establishing a user-centred setting that fosters a feeling of community, encourages literacy, and supports lifelong learning is the aim. Aizawl City's NGO libraries are recognised under government each year, yet library users appear to be declining, indicating the need for more user-engagement initiatives. According to the general assessment, there is still much space for the NGO libraries in Aizawl City to develop and get better. Users of the libraries will become more interested and involved than previously if more engaging programs like book exhibitions and best library user awards are carried out more by each NGO library.

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Multicultural Education and NEP 2020 through Children's Literature Text Book

Durgesh Kumar Pandey*
Sheelu Kachhap**

Abstract

This paper analyzes the NCERT Class 5 English Literature textbook within the framework of multicultural education and with reference to National Education Policy (NEP) 2020. NEP 2020 emphasizes the creation of an inclusive education system that celebrates India's cultural plurality, promotes multilingualism, and fosters equity, respect, and social justice. The content analysis has been done of the class 5th English Literature textbook of NCERT and examines the themes and multicultural perspective through the textual and visual elements. The findings demonstrate that textbook moves beyond literacy acquisition to cultivate empathy, intercultural competence, and critical reflection. By embedding regional, tribal, classroom-based, and Northeastern narratives, it envisioned NEP 2020's vision of integrating regional knowledge and celebrating India's cultural diversity. Thus, Children's literature emerges as a transformative pedagogical tool for fostering equity, inclusion, and lifelong learning from the early years of schooling.

Key Words: *Children's Literature, Multicultural Education, Diversity, Inclusion, NEP 2020, Intercultural Competence, Equity in Education*

Introduction

India is renowned for its multifaceted diversity, encompassing rich, linguistic, religious, and ethnic dimensions. A diverse country like India, multicultural education is essential to establishing inclusive and equitable learning settings (Bala, 2024). A strong and inclusive educational system fosters harmony and collaboration among varied groups by assisting students in understanding, appreciating, and respecting

*Durgesh Kumar Pandey: M.Ed. Student, Department of Education, Faculty of Arts, University of Allahabad, Prayagraj-211002, Uttar Pradesh. Email: dkpandey177@gmail.com
**Dr. Sheelu Kachhap: Assistant Professor, Department of Education, Faculty of Arts, University of Allahabad, Prayagraj-211002, Uttar Pradesh. Email: kachhap.sheelu7@gmail.com

various cultures. A child's perspective broadens and they become more equipped for a worldwide society when multicultural perspectives are included in the curriculum. By promoting social cohesiveness, tolerance, and respect for one another, such an educational system paves the way for a more just and forward-thinking country. Initiatives of Government of India such as The National Education Policy (NEP), 2020 the vision is to make education more inclusive and accessible for all. NEP, 2020 aims to modernize India's education system and make it more flexible, inclusive and multidisciplinary (Ministry of Education, 2020). NEP, 2020 also focuses on the multicultural education, its core objective is to promote multilingualism, cultural sensitivity, and the incorporation of other customs and knowledge systems into regular education (Praveen & Wasim, 2025). In order to establish inclusive learning environments that honour cultural variety, the policy highlights the necessity of providing educators with training in multicultural education techniques (Ministry of Education, Government of India, 2020). The NEP 2020 multicultural education policy represents a paradigm shift in India's educational system towards one that is more inclusive and sensitive to cultural differences. The policy seeks to establish an educational setting that fosters tolerance, respect, and understanding between students from all ethnic backgrounds by recognizing and appreciating the nation's rich cultural legacy. Aligned with NEP, 2020 the National Curriculum Framework (NCF), 2023 advocates learning three languages as R1, R2, and R3 during school years. R1 at the age 8 (Grade 3) typically the regional language to foster a deeper connection to culture and identity and also to attain reading and writing proficiency. Similarly literacy in R2 by age 11 (Grade 6) and R3 by age 14 (Grade 9).The curriculum's intent is to establish a sense of pride, belonging and cultural heritage through language education.

Multicultural Education

Multicultural education is a component of a school reform strategy and a movement for democracy, social justice, and equity (Tamang, 2022). Redesigning schools to provide all students with the knowledge, mindset, and abilities necessary to successfully navigate and contribute to a racially and ethnically diverse society and world is the primary goal of multicultural education. Banks (2009) described that the concept of multicultural education holds that all children should have equal access to education in schools, regardless of their gender, ethnicity, race, culture, language, social status, or religion. James A. Banks has developed a model in which he described the five dimensions of multicultural education: Content Integration, Prejudice Reduction, Knowledge Construction Process, Equity pedagogy and Empowering School Culture (Banks, 2015). Content integration refers to the amalgamation of examples and study materials from diverse cultural perspectives in the curriculum. Whereas

teaching students to critically examine how knowledge is produced and whose viewpoints are given priority in conventional curricula is known as knowledge construction. Prejudice reductions aims at developing favourable views in pupils about other racial, ethnic, and cultural groups and equity pedagogy focuses on the teaching methods and classroom settings that assist students from various racial, ethnic, and cultural backgrounds in gaining the information, abilities, and attitudes they require. Lastly empowering school culture emphasizes on ensuring the equality and equal status to the students of diverse background by transforming the culture and structure of school. In India, researchers stress the need to embrace cultural pluralism and implement frameworks such as Culturally Relevant Pedagogy, Relationship and Interaction Management, and Issues-Based Education to support the multicultural education and inclusive practices (Lalita, 2024; Singh, 2024; Tamang, 2022).

An effective tool for implementing multicultural education at the foundational level is children's literature. The role of children's literature is very important in fostering personalities of school going children. The children's book not only develops the cognitive but emotional and spiritual skills as well. "These books reflect the cultural backgrounds of a specific country or group of countries so that the child can learn many things about his traditions, values, beliefs and history" (Ismail, 2023). As child is going to mature, it fosters inclusive social relationships by normalizing variety and integrating it into their worldview. The principles that multicultural literature imparts to children in their early years leave a lasting influence, shaping the way they perceive and engage with diversity throughout their lives. Most of the studies which have been conducted in this area focus on higher education, secondary education or in the area of teacher education (Singh, 2024; Gogoi, 2018; Yilmaz, 2016). Multicultural education helps to develop the cultural competence among the students. When children's literature will be full of stories of different cultures, it will inculcate cultural competence. Children's literature has the potential to support young children in developing intercultural competence or "the ability to communicate effectively, and appropriately in intercultural situations based on one's intercultural knowledge, skill and attitudes" (Deardoff, 2004). As stated by National curriculum framework (2005) "Literature is also a spur to children's own creativity. After hearing a story, poem or song, children can be encouraged to write something of their own. They can also be encouraged to integrate various forms of creative expansions." Children's literature is widely acknowledged as foundational for early literacy and language development, serving both as a pedagogical tool and a medium for fostering critical discussions and personal connections among young learners (Adam et al., 2024; Ismail, 2023; Ong, 2022).

Research Question

1. To what extent is the multiculturalism of India reflected in children's literature prescribed in school curricula?
2. In what ways do children's literary texts promote inclusion, respect for diversity, and cultural awareness as envisioned by NEP 2020?

Research objectives

1. To examine the multiculturalism in children's literature prescribed in Indian schools.
2. To analyse how children's textbooks reflect the principles of multicultural education outlined in NEP 2020.

Methodology

The present study has been designed as the qualitative approach. The investigator has follow the content analysis method because it help to understand why, how and other related factors of this study. The content analysis was carried out systematically and aligned with the research objectives, using James A. Banks' Five Dimensions of Multicultural Education-Content Integration, Knowledge Construction, Prejudice Reduction, Equity Pedagogy, and Empowering School Culture as the guiding framework.

In the present study content analysis has been done of the class 5th English Literature textbook of NCERT. The textbook titled "Marigold" comprises ten units and only four chapters (Wonderful Waste Bamboo Curry ,Classroom Discussion , Who Will Be Ningthou?) of English Literature textbook [Marigold] to explore how multicultural, intercultural, inclusive, and diversity-related themes are represented.

Findings and Discussion

Objective 1.To examines the multiculturalism in children's literature prescribed in Indian schools.

This study has undertaken a critical investigation into the representation of multiculturalism and diversity in children's literature, with specific attention given to the English Literature textbook of NCERT prescribed for Class 5th. As the story Wonderful Waste, at pp.10 in the textbook set in the culturally vibrant state of Kerala, explores the origin of the regional dish Avial. The narrative centres on a creative act of sustainability, where food scraps are transformed into a celebrated culinary tradition. Cultural diversity is reinforced through the depiction of Kerala's traditional

cuisine, attire, and lifestyle. The accompanying illustration (Fig.1), which shows the Maharaja in royal attire and other characters in customary Kerala dress, visually anchors the narrative in its cultural context. The story encourages intercultural dialogue by inviting students to share their own cultural food practices, fostering empathy and understanding of different culinary traditions. This process of exchange exemplifies interculturalism, wherein learners are not only introduced to distinct cultural elements but are also encouraged to engage with and reflect upon them. By embedding such narratives in the curriculum, educators promote intercultural education that goes beyond content knowledge, cultivating students' ability to appreciate and navigate cultural differences through dialogue and critical thinking.

As part of the exploration of multicultural education, it becomes evident that the inclusion of diverse cultural narratives significantly enriches students' understanding of various communities and their distinct worldviews. In this regard, page 16 of Unit One in the Class 5 English Literature textbook presents the story Bamboo Curry, a Santhal folk tale that provides valuable insight into the customs, traditions, and lifestyle of the Santhal tribal community. The narrative highlights cultural diversity through its depiction of traditional food practices, eco-friendly bamboo architecture, and indigenous clothing. Notably, the story centre around the preparation of a distinctive tribal dish known as bamboo curry, made from bamboo shoots an ingredient that symbolizes the community's close relationship with nature and their sustainable way of living.the inclusion of this story marks a significant step toward acknowledging and valuing the voices of tribal communities, particularly the Santhal people, who have long been marginalized and underrepresented in mainstream education. By portraying Santhal characters in a warm, humorous, and relatable light, the story humanizes tribal life, countering long-standing stereotypes that depict Indigenous communities as primitive or isolated.

The Story supports the Knowledge Construction Process by prompting students to reflect on how cultural norms influence interpretation. Constructive engagement and rational reflection help children reduce prejudice by presenting cultural differences in a positive and non-threatening way. Such narratives create opportunities for critical intercultural reflection, fostering appreciation of both uniqueness and shared human values. In doing so, the story contributes to Equity Pedagogy and an Empowering School Culture, nurturing respect for diversity and inclusivity within the learning environment.

The poem Class Discussion, on pp.91 is an adapted version of a work by Gervase Phinn, holds significant multicultural value. Thoughtfully contextualized within an Indian classroom setting, it is enriched with familiar cultural elements. The teacher, dressed (fig.4) in a traditional salwar kameez, addresses a lively group of students

seated at classic wooden desks and benches, with colourful educational charts adorning the classroom walls. This relatable environment immediately resonates with Indian students, offering a culturally relevant framework for reflection and engagement.

The poem brings the theme of cultural diversity to life by portraying students from various backgrounds, each contributing their own traditions, appearances, and learning styles.. Through gentle humor and perceptive observation, the verses celebrate the individuality of every learner, naturally fostering an awareness of multiculturalism.

Furthermore, the poem encourages intercultural dialogue by inviting students to share their distinct perspectives and approaches to learning. It emphasizes that meaningful classroom participation extends beyond verbal expression and includes reflective, creative, and observant contributions. In doing so, it promotes interculturalism by highlighting mutual respect, understanding, and the integration of diverse identities within a shared educational environment.

Multicultural education also includes the knowledge of different language the story Who Will be Ninghtbou? set in Manipur, provides an immersive exploration of Northeastern Indian culture through language, attire, and moral values . The use of indigenous terms such as Ningthou (king), Leima (queen), meeyam (people), and khongnang (banyan tree) enhances linguistic and cultural richness, reflecting cultural diversity within the Indian subcontinent. The narrative challenges the conventional belief that leadership must be inherited by the eldest son, promoting instead values such as compassion, wisdom, and justice. This serves as a critique of rigid power structures and introduces students to alternative models of governance and community life. The story actively fosters intercultural dialogue by inviting students to reflect on and compare cultural norms related to leadership and morality. Its integration into the curriculum represents a multicultural approach that includes lesser-known regional narratives, thereby enhancing multicultural awareness and validating indigenous knowledge. As part of a broader framework of intercultural education, the story encourages learners to appreciate ethical and emotional universals while recognizing and respecting cultural specificity. The emphasis on empathy and inclusivity in leadership aligns closely with the principles of interculturalism, advocating for a worldview that transcends cultural boundaries through shared human values.

Objective 2: To analyse how children's textbooks reflect the principles of multicultural education outlined in NEP 2020.

The analysis of the NCERT Class 5 English Literature textbook reveals a meaningful alignment with the principles of multicultural education as outlined in the National Education Policy (NEP) 2020. NEP 2020 envisions an education system that

celebrates India's rich cultural diversity, encourages multilingualism, and fosters values of inclusion, equity, and respect for all identities. The selected stories and poems from the textbook Wonderful Waste, Bamboo Curry, Class Discussion, and Who Will Be Ningthou? demonstrate how literature can be an effective tool for advancing these goals through narrative diversity, visual representation, and culturally rooted content.

Wonderful Waste exemplifies multicultural education by introducing students to Kerala's regional culture through a story grounded in culinary heritage, traditional attire, and sustainability. The vivid illustration of the Maharaja and others in traditional dress not only contextualizes the narrative but also makes the cultural elements visually accessible. The story also encourages students to share their own food traditions, fostering intercultural dialogue and empathetic understanding key attributes of the intercultural competence NEP 2020 seeks to develop.

Similarly, Bamboo Curry serves as a strong example of how children's literature can bring marginalized voices into the classroom. The inclusion of a Santhal folk tale is particularly significant, as it introduces students to tribal customs, eco-friendly practices, and indigenous worldviews often excluded from mainstream curricula. Through relatable characters and humour, the narrative humanizes tribal life and challenges persistent stereotypes. This not only supports NEP 2020's emphasis on equity and inclusion but also cultivates critical reflection on social and cultural norms.

The poem Class Discussion, adapted and placed within a recognizable Indian classroom, reinforces the notion of the school as a microcosm of broader society. It highlights students' diverse backgrounds, learning styles, and appearances, promoting appreciation of individual differences within a shared space. Through humor and relatable situations, the poem fosters cultural awareness, encourages learners to voice their perspectives, and values non-verbal forms of participation aligning with NEP 2020's vision of holistic and inclusive education.

Further, the story Who Will Be Ningthou?, set in Manipur, powerfully reflects India's linguistic and regional diversity. The inclusion of indigenous terms and depiction of traditional attire creates an immersive experience that validates Northeastern cultural identity. The narrative challenges hierarchical power structures, offering alternative ethical models grounded in compassion and justice. By integrating this lesser-known regional story into the curriculum, NCERT affirms NEP 2020's call to include local knowledge systems and underrepresented narratives, thereby expanding the cultural horizons of young readers.

Conclusion

This study critically examines the NCERT Class 5 English Literature textbook through the lens of multicultural education and the principles of the National Educa-

tion Policy (NEP) 2020. The analysis of texts such as Wonderful Waste, Bamboo Curry, Class Discussion, and Who Will Be Ningthou? highlights how children's literature effectively fosters inclusion, cultural awareness, and empathy among children at their early stages of the development. These stories depict India's cultural, linguistic, and regional plurality while emphasizing values of sustainability, equity, community traditions, and intercultural dialogue. By engaging learners with diverse contexts from Kerala's south India to Santhal tribal life, classroom dynamics, and Manipuri moral traditions through the textbook goes beyond storytelling to promote reflection, comparison, and intercultural understanding. Aligned with NEP 2020, it integrates local knowledge, inclusive pedagogy, and equitable representation, enabling children to appreciate the ideas of Unity in Diversity.. The study concludes that children's literature, when thoughtfully selected, is a transformative tool for nurturing socially sensitive, empathetic, and responsible citizens in a pluralistic nation.

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