

**EDUCATION AS A CATALYST FOR WOMEN EMPOWERMENT AMONG THE ADI
TRIBE OF ARUNACHAL PRADESH**

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Abstract

The paper is proposed to assess the availability and accessibility of education and to investigate its impact on the socio-economic life of women of the Adi tribe of East Siang district, Arunachal Pradesh. East Siang district was selected as the study area because the modern educational system was first established in the district and the Adi tribe were the first natives to encounter the mainstream people. From the total number of six circles in the district, four villages were selected from each circle and, subsequently, 20 households in each village (total sample of 480) were selected for actual data collection using a semi-structured interview schedule. Besides, the official data was also collected from the department of education of the district. SPSS was used for tabulation and analysis of data. It has been found that despite relatively adequate availability and accessibility of education, at least at elementary level, compared to other districts, there has been a dismal picture of educational provisions for some sections of the tribe, such as a non-availability of schools within walking distance, a language barrier, inadequate teachers – numerous teachers appointed on a contractual nature, inadequate ICT-based learning, male students outnumbered females in expensive private schools. The study has also revealed that the availability and accessibility of education brought about empowerment in the socio-economic life of women of the Adi tribe.

Keywords: Availability, accessibility, empowerment, socio-economic life, ICT

INTRODUCTION :

Education is considered as a process of human enlightenment and empowerment for the betterment and quality of life. It not only enhances individual knowledge, skills, competencies, potential, values and attitudes but also transforms one's belief and thoughts (Dongaonkar, 2004). Education has been regarded as the most powerful instrument for emancipation and empowerment of human beings (Mishra, 2001). Education, thus, is the single most significant means through which individuals and society can attain and recover personal endowments, build capacity, overcome barriers, and expand the horizon of opportunities for a sustained improvement in their well-being. Despite the sincere and concerted efforts for equalization of educational opportunities for various sections of the people in society, it has not been able to realise the desired results. Even after seventy-five years of independence, the scheduled tribal communities continue to lag behind in education. According to the National Commission for SCs & STs and census report 2011, the percentage of literacy rate of tribes is about 63.1 per cent in 2011. The disparity is even more striking among the scheduled tribe women, who have the lowest literacy rate in the country (Maharatna, 2005). The female literacy rate of scheduled tribes is only 49.36 per cent whereas male literacy is 68.51 per cent (Census Report, 2011). The problem of tribes is compounded further by higher dropout rates in formal education, resulting in disproportionately low representation in higher education. Sujatha (2002) rightly argues that the perspective adopted for the educational development of tribal communities failed to adequately address the specific disadvantages characterizing the tribal population.

BACKGROUND:

Although a late starter, a uniform system of education prevails among the people of Arunachal Pradesh. Since independence, developmental strategies have been formulated for the all-round development of the people of Arunachal Pradesh, in which educational development has been considered to be a key area (Tamuk, 2014). Alongside the rest of regions of the tribal belt, special interventions in the educational sector are provided to the state by the central government. But still,

the people of Arunachal Pradesh have continued to face many problems in the educational sector and that could be the probable reason for lagging behind in the literacy rate of the state compared to the national average (Bage, Sirah & George, 2023). The East Siang district has made remarkable progress, compared to other districts of the state, in the field of education. The number of schools and colleges has increased over the years. Undivided East Siang district (72.5%) had the third highest literacy rate in the state in 2011, surpassed only by Papum Pare (79.9%) and Lower Subansiri (74.4%) (Census, 2011). Nevertheless, for stable achievements in the field of education, there are certain problems which are yet to be addressed. The issue of availability and accessibility of education among the ever-growing population in the district needs to be addressed, specifically the issue of gender parity in educational accessibility. Various types of constraints are faced by women of the Adi tribe in their pursuit of education, but some of them who attained the same have empowered themselves in various walks of life (Mibang and Abraham, 2003). On account of the prevailing age-old patriarchal stereotype, the Adi women are largely confined to household duties, unequal power relationships, non-inheritance of family property among other disabilities (Kaye, 2021). Therefore, it was felt worthwhile to conduct a study on the issue of gender parity in accessibility and availability of education and to examine the impact of education on the lives of tribal women.

OBJECTIVES OF THE STUDY:

1. To take account of educational development in East Siang District
2. To explore gender parity in availability and accessibility to education
3. To examine the impact of education on women empowerment in the Adi tribe

METHODOLOGY :

The study was based on both primary and secondary data. The primary data was collected through a field survey among the Adi tribe of East Siang district of Arunachal Pradesh. The selection of East Siang district was based on two main grounds: (i) Pasighat is the oldest town and the first educational institutions of the state were established in the district (first lower primary school in Paglek in 1918 and J.N. College, Pasighat in 1964 were established in the district) and (ii) the Adi tribe of East Siang district were the first native of the state to encounter the mainstream people. It is believed that the people of the East Siang district have received the highest benefits from such exposures, which have facilitated distinguished educational and socio-economic development.

Selection of the Respondents: Sample Households

The current research study was conducted through the multi-stage random sampling method, which has been done at four levels, i.e. at district level, circle level, village level and household level. Having selection of the district and inclusion of all six circles of the district, in the third stage, a listing of villages within the circles was done, from where four villages from each circle were randomly chosen. At the fourth stage, the total number of 20 households from each selected village was chosen randomly for a field survey. Thus, the total number of 480 sample households was surveyed, from where the requisite data was collected (Table 1). Besides, the relevant data was collected from the educational department of the district and other official data was also collected from various government records.

Collection and Analysis of Data

The semi-structured interview schedule, consisting of seven sections and 80 items, was administered to the sample respondents during the field survey. Moreover, a separate semi-structured interview schedule was also formulated for the collection of the official data from the department of education. The analysis of data was carried out using Statistical Package for Social Sciences (SPSS) Software Version 20.0. The analysis was performed in two dimensions of analysis, viz, first, descriptive statistical analysis and second, inferential statistical analysis. First, descriptive statistical analysis has been carried out, to measure the availability and accessibility of education in the district, from the

data collected both from the sample respondents and the official data. The appropriate tables and figures have been used for presentation and summarization of analysis findings.

Table 1 Numbers of Sample Villages and Household

Sl. No.	Name of the Circles	No. of Villages	No. of selected Villages	Sample Households
1	Bilat	8	4	80
2	Ruksin	10	4	80
3	Sille Oyan	12	4	80
4	Mebo	10	4	80
5	Namsing	9	4	80
6	Pasighat	27	4	80
Total	6	76	24	480

Secondly, the linear regression model has been employed for statistical data analysis to identify the relationship between an independent variable and dependent variables. The educational qualification of the sample respondent has been taken as an independent variable, while for dependent variables various measures of socio-economic life have been adopted, such as educational, economic, political and familial. For each measure of socio-economic life, an empowerment scoring chart (i.e. educational empowerment scoring; economic empowerment scoring; political empowerment scoring; and familial empowerment scoring) has been prepared and '4' points allocated for each positive or empowering response to an item/question; otherwise, for each negative response, '0' point was allocated. Thus, as highlighted by Rajapakse (2016) in his study that education as an imperative means for comprehensive development in society and the model suggested thereof, the study was based on four empowerment scoring charts prepared for analysing and identifying the impact of educational qualifications upon empowerment in socio-economic life.

RESULTS :

The respondents to the current study could be categorised into numerous demographic characteristics, which are presented in Table 2. Out of total respondents, 28% of respondents were from an age group of 38 to 47 years and 23% from 28 to 37 years. Similarly, 76% of them were male and 24% female, and 87% of them were married and 12% of them unmarried. In educational qualifications, 33% of total respondents were graduates and 23% of them post-graduate and above, but 13% of them reported to be illiterate. With regard to occupational categorisation of the respondents, 31% (150) of total respondents were engaged in farming and allied activities as their primary occupation and 27% (131) of them were employed in services in the government sector. Furthermore, out of the total respondents, 75% of them have monthly family income less than 100000 and 23% of them were in the income category of 100000 to 300000. Education is a right of every child as education nurtures children to meet the challenges of life. The availability of educational provisions, in the form of adequate infrastructure and a sufficient number of efficient teachers, are considered to be essential conditions for promoting education among the people (Niranjan, 2016). In light of given parameters, the availability and accessibility to education have been attempted to measure among the sample population. In the district there were altogether 1801 teachers teaching at various levels in 163 schools in the academic year 2021-22 as depicted in Table 3. In 129 government schools of various levels, there were 1352 teachers, out of which 953 (70%) were regular and 399 (30%) contractual. Similarly, in 30 private schools, there were 401 teachers, out of which 142 (35%) regular and 259 (65%) contractual in nature. Further, there was one school that was functional without a single teacher in the academic years 2020-21 and 2021-22.

Table 2 Demographic Profile of the Respondent

Item	Response	Frequency	Percent
Age of Respondent	18 - 27	30	6
	28 - 37	112	23
	38 - 47	133	28
	48 - 57	104	22
	58 - 67	77	16
	Above 68	24	5
Gender of Respondent	Male	363	76
	Female	117	24
Marital Status of Respondent	Unmarried	59	12
	Married	416	87
	Separated	5	1
Education Qualification	Illiterate	60	13
	5th standard	42	9
	Matric	47	10
	12th Standard	64	13
	Graduate	157	33
	Post Graduate and Above	110	23
Occupation of Respondent	Student	24	5
	Unemployed	10	2
	Housewife	22	5
	Self Employed	21	4
	Service (Govt)	131	27
	Service (Pvt)	34	7
	Business/Trade/Contract	34	7
	Farmer and Allied occupation	150	31
	Others	54	11
Total Income of Family	Less than 100000	362	75
	100001 - 300000	108	23
	300001 - 500000	7	1
	500001 - 1000000	2	0
	Above 1000000	1	0
Total		480	100

Table 4 and Figure 1 indicate that nearly 32% of the respondents disclosed that a school was not available within walking distance of 1 km in the district. Around 23% of them responded that the mandatory 30:1 pupil-teacher ratio was not maintained in schools and 16% of them said teachers in government schools were not punctual. Nevertheless, 87% of respondents disclosed that there were separate hygienic washrooms for boys and girls in schools and more than half of them (53%) were satisfied with an ICT-based teaching-learning system.

Table 3 Number of Teachers during academic year 2021-22

School	Total School	School with No Teacher	Nature of Teacher		Total Number of Teacher
			Regular	Contract	
Govt School	129	1	953	399	1352
Govt Aided School	1	0	11	4	15

Private School	30	0	142	259	401
KV	1	0	17	0	17
JNV	1	0	8	0	8
Sainik School	1	0	8	0	8
Total	163	1	1139	662	1801

Source: Field data from the office of DDSE, Pasighat

The official data collected from the educational department of the district reveals that the total enrolment of students increased from 21843 in 2019-20 to 24055 in 2021-22 in all categories of school from pre-primary to class XII as shown in Table 5. Out of which 16905 (boys 8086 and girls 8819) were students enrolment in government schools in 2021-22. The numbers of girls outnumbered boys in government schools in three academic years, from 2019-20 to 2021-22. Whereas, in private schools the total enrolment was 5786 (boys 3054 and girls 2732) in the academic year 2021-22. The numbers of boys outnumbered girls in private schools in three academic years, from 2019-20 to 2021-22. The Table 6 and Figure 2 depict responses regarding accessibility of education by the sample respondents. Out of the total respondents, 92% were aware of free and compulsory education as a fundamental right. However, only 58% of them were satisfied with such free and compulsory educational provision. Again, 89% of them were aware of the mid-day meal scheme for children, but only 52% of them were satisfied with such provision. A very small section of sample respondents (14%) availed educational financial aid from the government and a little less than half of them (40%) faced problems getting admission to schools for their children. In Table 7 and Figure 3, various challenges in accessing education have been revealed, such as there was a language barrier in the teaching-learning system (64%); local language has not yet been introduced as a third language subject (94%); concern about losing mother tongue in the current education system (72%); and online learning system benefit only to the students belonging to well-to-do family (38%). Nevertheless, more than 91% of the respondents revealed that their children access online and digitalized modes of learning systems. For measuring empowerment in educational field, a linear regression model was employed to determine the relationship between education qualification (independent variable (x)) and educational empowerment rating (dependent variable (y)) among the respondents. Table 8 shows that despite a low R square (R^2) of .018, the model was proved to be statistically significant (unstandardized $\beta = .238$ and p value = .003). Thus, it has proved that there is a significant impact of educational qualifications upon empowerment in the educational sphere of life of women. For assessing economic empowerment level, the regression analysis found that there was a low R square (R^2) of .024, but it was proved to be statistically highly significant at unstandardized $\beta = .300$ and p-value = .001. Hence, it has established a close relationship between the variables educational attainment and women empowerment in economic life (Table 9).

For determining political empowerment level, in regression analysis, .004% R square (R^2) shows a very poor predictive model and at the same time, it has found that there was no statistical significant relationship between educational qualification (x) and empowerment rating in political life (y) (unstandardized $\beta = -.132$ and p-value = .146) (Table 10).

Table 4 Availability of Education

Indicator	Response	Frequency	Percent
School available within walking distance (1 km)	Yes	320	66.7
	No	151	31.5
	No Idea	9	1.9
Maintain 30:1 pupil-teacher ratio as per RTE 2019	Yes	312	65
	No	110	22.9
	No Idea	58	12.1

Teachers in Govt. School regular and punctual	Yes	364	75.8
	No	78	16.3
	No Idea	38	7.9
Separate hygienic washroom for boys and girls	Yes	419	87.3
	No	36	7.5
	No Idea	25	5.2
ICT teaching-learning provision available in school	Yes	256	53.3
	No	188	39.2
	No Idea	36	7.5
Satisfied with co-curriculum activities conducted in school	Yes	360	75
	No	95	19.8
	No Idea	25	5.2
Total		480	100

Figure 1 Availability of Education

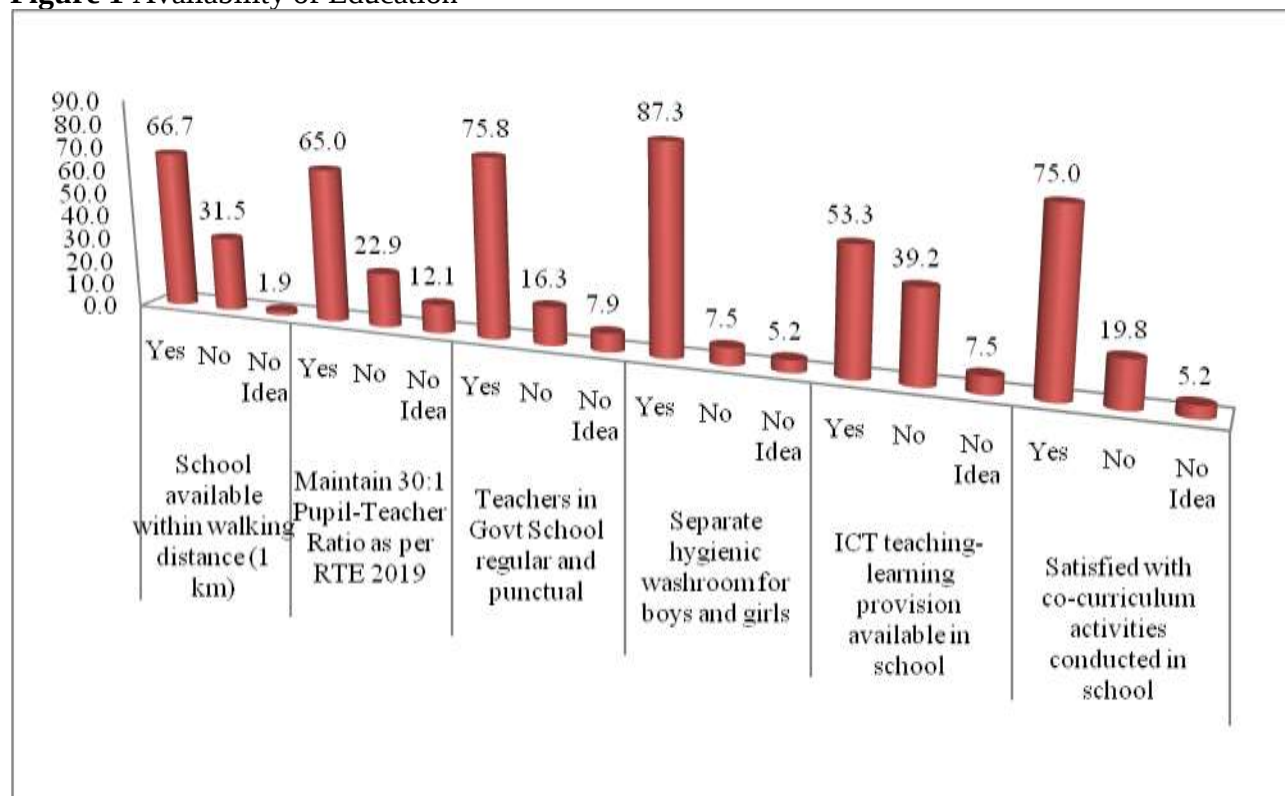


Table 5 Student Enrolment during academic year 2019-20, 2020-21 and 2021-22

Academic Year			2019-20	2020-21	2021-22
School Management	Total Schools	Gender	Total(I-XII)	Total(I-XII)	Total(Pri to XII)
Government Schools	129	Boys	6583	7104	8086
		Girls	7468	7812	8819
		Total	14051	14916	16905
Government Aided	1	Boys	263	253	269
		Girls	94	103	118

			Total	357	356	387
Private Unaided (Recognized)	30	Boys	3534	2542	3054	
		Girls	3091	2457	2732	
		Total	6625	4999	5786	
Kendriya Vidyalaya	1	Boys	233	237	266	
		Girls	221	247	273	
		Total	454	484	539	
Jawahar Navodaya Vidyalaya	1	Boys	81	60	86	
		Girls	100	94	107	
		Total	181	154	193	
Sainik School	1	Boys	175	173	234	
		Girls	0	0	11	
		Total	175	173	245	
Total		163	21843	21082	24055	

Source: Field data from the office of DDSE, Pasighat

Figure 2 Accessibility to Education

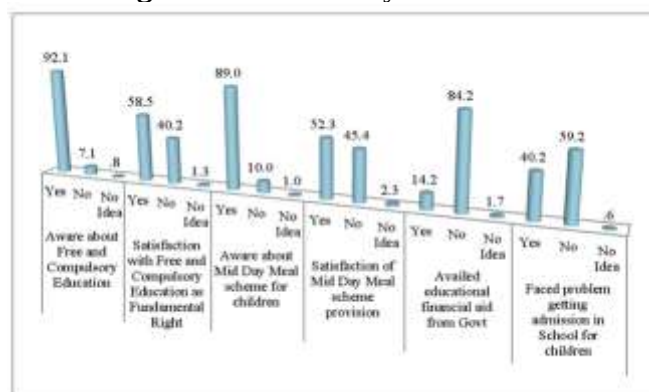


Table 6 Accessibility to Education

Indicator	Response	Frequency	Percent
Aware of Free and Compulsory Education	Yes	442	92.1
	No	34	7.1
	No Idea	4	0.8
Satisfaction with Free and Compulsory Education as Fundamental Right	Yes	281	58.5
	No	193	40.2
	No Idea	6	1.3
Aware of Mid-Day Meal scheme for children	Yes	427	89
	No	48	10
	No Idea	5	1
Satisfaction of Mid-Day Meal scheme provision	Yes	251	52.3
	No	218	45.4
	No Idea	11	2.3
Availed educational financial aid from	Yes	68	14.2

Govt.	No	404	84.2
	No Idea	8	1.7
	Yes	193	40.2
Faced problem getting admission in School for children	No	284	59.2
	No Idea	3	0.6
	Total	480	100

Figure 3 Challenges in Accessing to Education

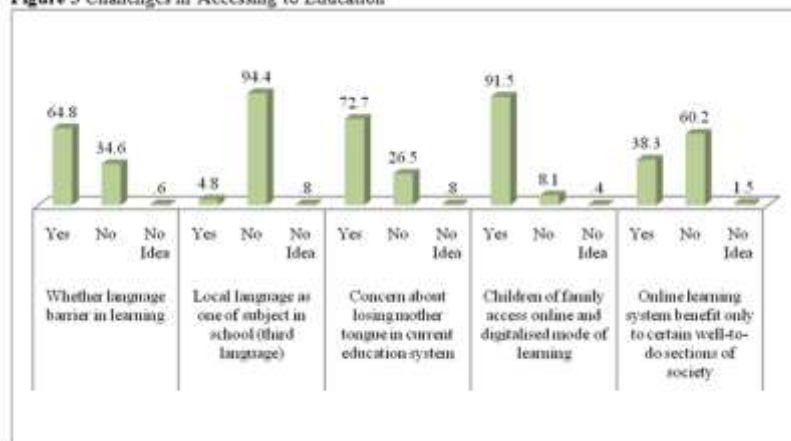


Table 7 Challenges in Accessing to Education

Indicator	Response	Percent
Whether language barrier in learning	Yes	64.8
	No	34.6
	No Idea	0.6
Local language as one of subject in school (third language)	Yes	4.8
	No	94.4
	No Idea	0.8
Concern about losing mother tongue in current education system	Yes	72.7
	No	26.5
	No Idea	0.8
Children of family access online and digitalized mode of learning	Yes	91.5
	No	8.1
	No Idea	0.4
Online learning system benefit only to certain well-to-do sections of society	Yes	38.3
	No	60.2
	No Idea	1.5
Total		100

Table 8 Regression Analysis for Educational Qualification on Educational Empowerment

R Square	Adjusted R Square	F	Significance F (p-value)	Unstandardized β Coefficients	Std. Error	t test	p-value
.018	.016	8.634	0.003	.238	.081	2.938	.003**

Statistical significance at $p < 0.05$

a. Dependent Variable: Scoring on Educational Empower through Education

b. Predictors: (Constant), Education Qualification

The Table 11 indicates that the R square (R^2) of .024 was calculated in linear regression analysis to determine the relationship between educational qualification (x) and empowerment rating regarding

familial life (y). At the same time, it has determined statistically significant relationships between the variables (unstandardized $\beta = .302$ and p-value = .001).

Table 9 Regression Analysis for Educational Qualification on Economic Empowerment

R Square	Adjusted R Square	F	Significance F (p-value)	Unstandardized β Coefficients	Std. Error	t test	p-value
.024	.022	11.941	0.01	.300	.087	3.456	.001***

Statistical significance at $p < 0.05$

- Dependent Variable: Scoring on Economic Empowerment through Education
- Predictors: (Constant), Education Qualification

Table 10 Regression Analysis for Educational Qualification on Political Empowerment

R Square	Adjusted R Square	F	Significance F (p-value)	Unstandardized β Coefficients	Std. Error	t test	p-value
.004	.002	2.123	.146	-.132	.090	-1.457	.146

Statistical significance at $p < 0.05$

- Dependent Variable: Scoring on Political Empowerment through Education
- Predictors: (Constant), Education Qualification

Table 11 Regression Analysis for Educational Qualification on Familial Empowerment

R Square	Adjusted R Square	F	Significance F (p-value)	Unstandardized β Coefficients	Std. Error	t test	p-value
.024	.022	11.611	0.001	.302	.089	3.407	.001***

Statistical significance at $p < 0.05$

- Dependent Variable: Scoring on Family Empowerment through Education
- Predictors: (Constant), Education Qualification

DISCUSSION :

The East Siang district was the place where the modern educational system was established for the first time in the state. The availability of an educational system was relatively adequate in the district, at least at elementary level, compared to other districts. But at ground level, and responses from the sample households revealed that such official claims of availability of educational provisions were not adequate. It was reported that the basic requirement of the RTE Act, 2009 was not adequately available in the district, viz., the availability of schools in walking distance and 30:1 pupil-teacher ratio in schools. Besides, numerous teachers in the schools were engaged in contractual nature, the number of which was much higher in private schools (65%). Such a temporary arrangement of teachers might have been the primary reason for the non-satisfactory commitment and involvement of them in the teaching-learning process. Further, the official record has shown that one government school was functional without a teacher in the academic years 2020-21 and 2021-22, which reveals the fact that availability of educational provisions in the district was not satisfactory. The accessibility to education in its various fronts was improved to a great extent in the district. The enrolment of students from the pre-primary level to class XII was increased by more than 10% from the academic year 2019-20 to 2021-22. However, the male students consistently outnumbered the

females in the expensive private schools in three academic years, from 2019-20 to 2021-22. This official data suggest preference towards male students for quality education over females, although responses from the household sample were showing contrary to it, where it was responded no such preference was given. Similarly, the study findings also indicate that there were shortcomings in some of the basic requirements in the accessibility of the educational system. The language barrier has also proved to be one of the key challenges in accessing education in East Siang district. The studies conducted by Rani (2000), Jha and Jhingran (2002) and Gautam (2003) also observed that owing to the language barrier, the tribal children are unable to actively participate in the teaching-learning process. The Adi language has not yet been introduced as a Third Language subject in the district, whereas many tribes of Arunachal Pradesh have already been introduced it in their respective districts (Loiwal, 2021). The study has found that the availability and accessibility of education brought about empowerment in the socio-economic life of women, viz., educational, economic, political and familial spheres of life. The statistical significant relationships have been established between educational qualification and empowerment in educational, economic and familial spheres of life respectively. Similar findings were shown by Mibang and Abraham (2003), where they have highlighted that education brought about empowerment among the tribal women of Arunachal Pradesh. However, in consonance with the practical prevailing situation and open secret facts in society, the study found that there was no statistically significant relationship between educational qualifications and political empowerment among the women of the Adi tribe.

LIMITATION:

The current study with its modest objectives to assess availability and accessibility to educational facilities and determine the impact of education upon empowerment of women, taking into consideration certain limited measures based on the official data and the sample household responses. These measures adopted for the study might not be adequate to assess the availability and accessibility of education and in determining the empowerment level of women. As any adult member of the selected household was allowed to be representative sample of the household, because of which gender composition was not uniform in the total sample size. In light of given limitations, the current research findings need to be gauged and taken as the basis for conducting further elaborate study in the field. Thus, the current study has underscored the importance of carrying out further in-depth research to take account of the contribution of various key stakeholders in bringing improvement to the educational system and subsequently bringing changes to the lives of the tribes.

CONCLUSION :

The East Siang district, being one of the oldest districts, has witnessed remarkable progress in the educational field, particularly compared with other districts of the state. The Adi tribe of the state has been considered as one of the highest in the literacy rate, mainly because of the improvement in the availability and accessibility to educational facilities. Education has been instrumental in empowering tribal women to make well-informed decisions and independently deal with various aspects of their socio-economic life. To make an equitable and gender-just society, strengthening of education should be given priority, for which the onus lies not only with the educational department, but all the key stakeholders, viz. all other related government departments, NGOs, political leaders, community organization, student body and the general public. Such proactive participation from the stakeholders would pave the way for effective implementation of the National Education Policy, 2020 for overhauling education system.

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