

Quality Education in Secondary Schools of Tribal Districts of Odisha in the context of Samagra Shiksha Abhiyan

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by

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I dedicated this work to the All Secondary Schools of Tribal Districts of Odisha. If this work benefits their educational development, then the researcher's purpose in doing this work will be justified.

DECLARATION

I, **Dhaneswar Behera**, hereby declare that the thesis entitled, “**Quality Education in Secondary Schools of Tribal Districts of Odisha in the context of Samagra Shiksha Abhiyan**” submitted by me under the guidance and research supervision of **Dr. Ravula Krishnaiah**. This piece of research work is an authentic which is also free from plagiarism. I also declare that it has not been submitted previously in part or in full to this University or any other University or Institution for the award of any degree or diploma. I hereby agree that my thesis can be deposited in Shodhganga/ INFLIBNET.

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List of Abbreviations

AISHE	All India Survey on Higher Education
APPEP	Andhra Pradesh Primary Education Project
ASER	Annual Status of Education Report
B.A.	Bachelor of Arts
B.Ed.	Bachelor of Education
B.Sc.	Bachelor of Science
BPED	Bachelor of Physical Education
BRC	Block Resource Coordinator
BSE	Board of Secondary Education
CBZ	Chemistry, Botany, Zoology
COVID	Corona Virus Disease
CPED	Certificate in Physical Education
CRC	Cluster Resource Centre Co-ordinator
CT	Certificate of Teaching
CTE	Certificate in Teaching of English as a Second Language
CWSN	Children with Special Need
DIET	District Institute for Education and Training
DIKSHA	Digital Infrastructure for Knowledge Sharing
DPC	District Project Coordinator
DPC	District Pedagogy Coordinator
DPEP	District Primary Education Programme
EBB	Educational Backward Blocks
EFA	Education for All
EFLU	English and Foreign Languages University
EMRS	Ekalavya Model Residential School
FGD	Focus Group Discussion
GER	Gross Enrolment Ratio
GoI	Government of India
GPI	Gender Parity Index
HM	Head Master
IASE	Institute of Advanced Studies in Education
IBM	International Business Machines

ICT	Information and Communication Technology
IT	Information Technology
KBK	Koraput, Rayagada, Malkangiri, Nabarangpur, Balangir, Subarnapur, Kalahandi, Nuapada
KGVB	Kasturba Gandhi Balika Vidyalaya
KISS	Kalinga Institute of Social Sciences
KM	Kilometre
LAN	Local Area Network
LCD	Liquid Crystal Display
LJP	Lok Jumbish Project
LWE	Left Wing Extremism
M.Sc.	Master of Science
MDM	Mid-day-Meal
MHRD	Ministry of Human Resource Development
MEAI	Mazumder Academic Aspiration Inventory
MTA	Mother Teacher Association
NCERT	National Council of Educational Research and Training
NEP	National Education Policy
NER	Net Enrolment Ratio
NGO	Non Government Organization
NIEPA	National Institute for Educational Planning and Administration
NPE	National Policy on Education
NPEGEL	National Programme for Education of Girls at Elementary Education
OAVS	Odisha Adarsha Vidyalaya Sangathan
OBB	Operation Blackboard
OBC	Other Backward Classes
OERP	Odisha Education Resource Portal
OSEPA	Odisha School Education Programme Authority
OSS	Odisha Shiksha Sanjog
PCM	Physics, Chemistry, Mathematics
PET	Physical Education Teacher
PG	Post Graduate
PISA	Program for International Student Assessment

POA	Plan of Action
PPP	Public Private Partnership
PTA	Parent Teacher Association
PTR	Pupil Teacher Ratio
PVTG	Particular Vulnerable Tribal Groups
RIE	Regional Institute of Education
RMSA	Rashtriya Madhyamik Shiksha Abhiyan
RTE	Right to Education
SC	Scheduled Caste
SCERT	State Council of Educational Research and Training
SCR	Student Classroom Ratio
SDGs	Sustainable Development Goals
SFD	Special Focused Districts
SKP	Shiksha Karmi Project
SMC	School Management Committee
SMDC	School Management and Development Committee
SPSS	Statistical Package for Social Science
SSA	Sarva Shiksha Abhiyan
SSA	Samagra Shiksha Abhiyan
ST	Scheduled Tribe
STARS	Strengthening Teaching-Learning and Results for States
TLM	Teaching Learning Materials
UDISE	Unified District Information System for Education
VEC	Village Education Committees
UEE	Universal of Elementary Education
UGC	University Grant Commission
UNESCO	United Nations for Educational, Scientific and Cultural Organization
UPBEP	U.P Basic Education Project
UN	United Nations
UT	United Territories

Abstract

Samagra Shiksha Abhiyan is an integrated centrally sponsored scheme regarding school education that combines Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA), and Teacher Education. The common objectives of all the schemes are to enhance access through the expansion of quality school education; promote equity through the inclusion of disadvantaged groups and weaker sections, and improve the quality of education for all. These programs addressed several major gaps in the school education system and have significantly contributed to laying a strong foundation for an equitable school education system in the country.

The study was undertaken to conduct a status survey of infrastructure facilities for students and employees available in secondary schools, to address the equity and inclusive issues in terms of enrolment, retention, and achievement, to find out the classroom transaction process, and to make in-depth studies of selected secondary schools in tribal areas. The triangulation method, i.e., survey and case study method, is used for the present research. Multistage sampling was used for selecting 50 secondary schools, and the purposive sampling technique was used for selecting five schools for case studies from five blocks under five districts of Odisha (i.e., Rayagada, Kalahandi, Nabarangpur, Koraput, and Malkangiri). Self-developed tools such as Questionnaire-cum-Checklist, Classroom Observation Schedule, and Interview Schedule for HMs, Teachers, Parents, Focus Group Discussions for students, and school records were used for data collection. The quantitative techniques for data analysis include frequency and percentage analysis. Qualitative data were analyzed manually using M.S. Word, coding and interpreting the data systematically.

The findings of the study revealed that the overall profile of the secondary schools of tribal districts of Odisha is in critical conditions such as over-loaded classrooms in the majority of the schools, more than 5kms distance of schools from the students' habitation. Case studies revealed different quality inputs and practices that would help to improve quality secondary school education such as good pupil-teacher ratio, sufficient classrooms, regular Head Masters including subject-wise trained teachers, availability of non-teaching staff, basic infrastructure facilities including hostel facilities for all students, curriculum components, effective classroom environments, school- community relationship and constant supervision by higher authorities. Based on these findings, it is recommended that policymakers, teachers, and parents should take the necessary steps to make secondary education accessible and friendly for all students to ensure quality secondary education.

Keywords: Quality Education, Secondary Schools, Tribal Districts, Samagra Shiksha Abhiyan

CHAPTER I

CHAPTER I

CONCEPTUAL FRAMEWORK

“A quality education can transform lives by empowering people and helping overcome poverty, inequality and discrimination. It’s also a human right”

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1.0.Introduction

This study aims to explain the system-level performances and quality practices at secondary schools in tribal districts of Odisha. This study has four objectives and is directly associated with Samagra Shiksha Abhiyan (SSA) perspectives, Sustainable Development Goal (SDG 4.1 & 4.5), and National Education Policy, 2020. The objectives of this study are to explain the most important answer not only to challenges faced by the stakeholders but also to possible solutions to those problems at the secondary school level. In our country, many children leave school and become part of the workforce in the secondary school stage. For instance, connecting 2004-05 to 2018-19, the number of children attending school improved from 219 million to 248 million, but students' learning outcomes across all age groups remained below par (Drishti, 2020). Again, the COVID 19 global pandemic grounds the largest ever learning interruption, affecting 1.6 Billion students worldwide. There are 258 million children and youth still unable to access school, and 617 million children and adolescents can't read and do basic math. It also revealed that less than 40% of girls could complete lower secondary school in sub-Saharan Africa and many refugee youths are still out of school (UNESCO, 2019). Further, the study collected reviews of related literature based on different themes such as initiatives and learning achievements (Das and Anand, 2017; Hansdah, 2016; Hansdah & Puhan, 2016; Imam, Ali, Singh G.P and Tiwari Y.N., 2016; Sanjeev, Sandeep, Chauhan and Tewari, 2017; Shrama, 2017; Sahu, Janmejaya, 2013; Wajeha Thabit Al-Ani & Omer Hashim Ismail, 2015). The second theme has based on quality schooling and overall school performance (Dundar, H., and Murat. A, 2014; Kim, H.J and Jang, H.Y., 2015; L. Kyriakides & B.P.M. Creemers, 2011; Mohalik and Sethy, 2015; Patra, S.K., 2016; Pruet. P., Ang. C.S., and Farzin, D., 2016; Pradhan and Pattnaik, 2006; Sahu, 2013). The third reviewed themes based on Enrolment, Dropout, Retention, and Literacy (Behera and Krishnaiah, 2021; Biswas, G., and Krishnan, D., 2017; Behera, 2015; Chaudhari, Awasthi & Amin, 2012; Dash Manasi, 2015; Devi Kiran & Prashanti, 2014; Das, 2009; Debi and Mahesh's, 2009; Mishra, 2015; Mishra Lokanath, 2015; Ramdas Rupavath, 2016; Rout,

Naresh., 2015; Sahu K.K., 2014). The fourth reviewed theme focused on Socio-economic status and Girls' Education as well as Health Issues in Tribal areas (Behera, J., and Samal, R.M., 2015; Gajpal, L.S., 2017; Garnaik and Barik, 2012; Jana, N.C., & Ghosh, P.K., 2015; Maharana and Nayak, 2017; Mishra, 2015; Nayak, 2014; Parida, 2016; Puan, 2016; Puan and Malla, 2012; Soren, 2016; Suthar, Chouhan, & Meena, 2016; Sahu, 2014; Sofi, 2014; Sailabala Debi and Mahesh, E., 2008). The reviews of related literature also helped decide to frame the right methodology part for this study. The study analyzed the field data in the end chapters and systematically discussed the major findings. Before understanding the present research, the current stand on school education needs to be overlooked with special references to education for tribals in India and Odisha in particular.

1.1. Brief Profile of Tribals in India and Odisha

In India, tribal people are available by way of a different history, identity, culture, tradition, autonomy, sense of territory, boundary, intrinsic relationship with nature, land, water, forest, varied mode of production, political entity, and victims of several waves of colonialism (Xaxa, 2014). They are known by multiple names such as Pahari, Adivasi, Janjati, Vanyajati, Vanvasi, Anusuchit Janajati, Adimjati, and so on. Among all these names, Adivasi is well known most comprehensively, and Anusuchit Janjati (Schedule Tribe) is the constitutional name covering all of them (Ota and Mohanty, 2009). Article 366 (25) indicates that the STs are those communities scheduled as per article 342 of the Constitution & it describes, “Scheduled Tribes are the tribes or communities which have been declared as such by the President through a public notification.” As per the 2011 census, 10.42 cores total tribal population lived in India, which represents 8.6% of the total population, along with 705 numbers of individual ethnic groups identified. Further, the 2011 census stated that half of the ST population is available in five states such as Madhya Pradesh (14.4%), Maharashtra (10.1%), and Odisha (9.2%), Rajasthan (8.9%), and Gujarat (8.6%).

Odisha is a tribal concentrated state with the highest number of tribal communities and the 3rd state of India in the population of tribes according to the 2011 census. There are 62 different types of tribes, including 13 Particularly Vulnerable Tribal Groups. Among the 74 PVTGs, the highest numbers has found in Odisha: Birhor, Bondo, Chuklia Bhunjia, Didigi Juang, Kharia, Dongria Khonda, and Kutia Khanda, Lanjia Saora, Lodha Mankidia, Paudi Bhuyan, Soura. Lets’ understand the present population status of tribals in Odisha.



Map1.1: Tribal Population in Odisha

Sources: Concentration of Tribal Population in Odisha Census 2011, and SCSTRTI

The Population of Tribes in Odisha in 2021 is estimated to be 1 million. However, the state population was recorded as 47,645,822 in the year 2021. As per the 2011 Census of India, the Population of the Tribal in Odisha state was 9590756. Here, the researcher has primarily presented statistical data on the populations of tribes in Odisha as per current Census available data.

Odisha, Mayurbhanj district has the largest number of tribes, with a population of 1479576, whereas the lowest number of tribes live in Puri, with a population of 6129. Based on the 2011 census in India, the District's total population, Mayurbhanj (1479576), is at the top of the list, and Puri (6129) is at the bottom. Eight Districts have more than 50% Tribe population; the districts are Mayurbhanj (1479576), Malkangiri (354614), Nabarangpur (681173), Rayagada (541905), Gajapati (313714), Kandhamal (392820), Sundargarh (1062349) and Koraput (697583). Table 1.1 shows the tribal population in the Odisha district and male and female population, and table 1.2 shows the status of the overall literacy rate among tribes in Odisha.

Table 1.1: District wise Scheduled Tribal Population in Odisha

Sl.	Districts	Area (in Sqkm)	Total	Male	Female
1	Angul	6375	179603	89980	89623
2	Balasore	3806	275678	137748	137930
3	Bargarh	5837	281135	140542	140593
4	Bhadrak	2505	30428	15361	15067
5	Bolangir	6575	347164	172489	174675
6	Boudh	3098	55364	27362	28002
7	Cuttack	3932	93745	47437	46308
8	Deogarh	2940	110400	55126	55274
9	Dhenkanal	4452	162056	80878	81178
10	Gajapati	4325	313714	151902	161812
11	Ganjam	8206	118928	59172	59756
12	Jagatsinghpur	1668	7862	4226	3636
13	Jajpur	2899	151432	76048	75384
14	Jharsuguda	2114.00	176758	88273	88485
15	Kalahandi	7920	449456	221171	228285
16	Kandhamal	8021	392820	190506	202314
17	Kendrapara	2644	9484	4748	4736
18	Keonjhar	8303	818878	405927	412951
19	Khurda	2813	115051	59094	55957
20	Koraput	8807	697583	337373	360210
21	Malkangiri	5791	354614	171717	182897
22	Mayurbhanja	10418	1479576	730487	749089
23	Nuapara	3852	206327	100469	105858
24	Nabarangpur	5291	681173	335028	346145
25	Nayagarh	3890	58691	29173	29518
26	Puri	3479	6129	3240	2889
27	Rayagada	7073	541905	259040	282865
28	Sambalpur	6624.00	355261	177565	177696
29	Sonepur	2337	57192	28794	28398
30	Sundargarh	9712	1062349	526856	535493
	Total	155707	9590756	4727732	4863024

Source: Population Census 2011 @GoI

Table 1.2: District wise Literacy rates of ST in Odisha

Sl.	Districts	Total	Male	Female
1	Angul	61.86	72.55	51.19
2	Balasore	50.06	61.47	38.71
3	Bargarh	64.86	75.47	54.30
4	Bhadrak	43.49	53.21	33.60
5	Bolangir	54.93	67.78	42.34
6	Boudh	63.84	77.88	50.17
7	Cuttack	57.93	68.87	46.79
8	Deogarh	62.38	73.17	51.67
9	Dhenkanal	60.39	70.82	50.04
10	Gajapati	43.66	55.39	32.83
11	Ganjam	49.71	60.71	38.89
12	Jagatsinghpur	66.55	76.06	55.50
13	Jajpur	47.60	59.68	35.48
14	Jharsuguda	68.72	78.78	58.70
15	Kalahandi	49.29	63.31	35.84
16	Kandhamal	58.34	72.12	45.58
17	Kendrapara	62.39	70.70	54.01
18	Keonjhar	53.24	65.22	41.56
19	Khurda	69.33	79.42	58.64
20	Koraput	35.36	46.20	25.37
21	Malkangiri	35.23	44.91	26.25
22	Mayurbhanja	53.11	65.28	41.36
23	Nuapara	51.01	65.13	37.73
24	Nabarangpur	38.54	49.46	28.02
25	Nayagarh	66.29	78.62	54.20
26	Puri	74.62	83.08	64.71
27	Rayagada	36.69	47.87	26.72
28	Sambalpur	65.76	76.00	55.59
29	Sonepur	66.78	77.38	56.05
30	Sundargarh	65.08	73.98	56.39
	TOTAL	52.24	63.70	41.20

Source: Population Census 2011 @GoI

The above table indicates that the literacy rate of the Tribe in Odisha is 52.24%. As per the data female literacy rate (41.20%) is lower than the male literacy rate (63.70%). Puri's overall tribal literacy rate is the highest (74%). In contrast, lower is Koraput (35%), while the male literacy rate is the highest (83.08%) in Puri district and the lowest (44.91%) in Malkangiri district, and the female literacy rate is the highest (64.71%) in Puri district and the lowest

(25%) in Koraput district. The literacy rate among Scheduled Tribes is 52.24% against the overall literacy rate of 72.87% of the State as per the 2011 census (Annual Report 2019-20). The Samagra Shiksha Abhiyan is more focused on the Educational Backward Blocks (EBB) means blocks particularly, the female literacy rate in rural areas is below the national average (46.13%) as per the 2011 census. Further, Special Focused Districts (SFD) means recognized based on population, i.e., 25% and above concentrated of SC and ST population (Samagra Shiksha Abhiyan, Draft Document, p 46 & p 61). Lets' understand the overall literacy of India in general population literacy ST literacy rate in India and Odisha.

Table 1.3: Literacy rates of the General & ST in India and Odisha

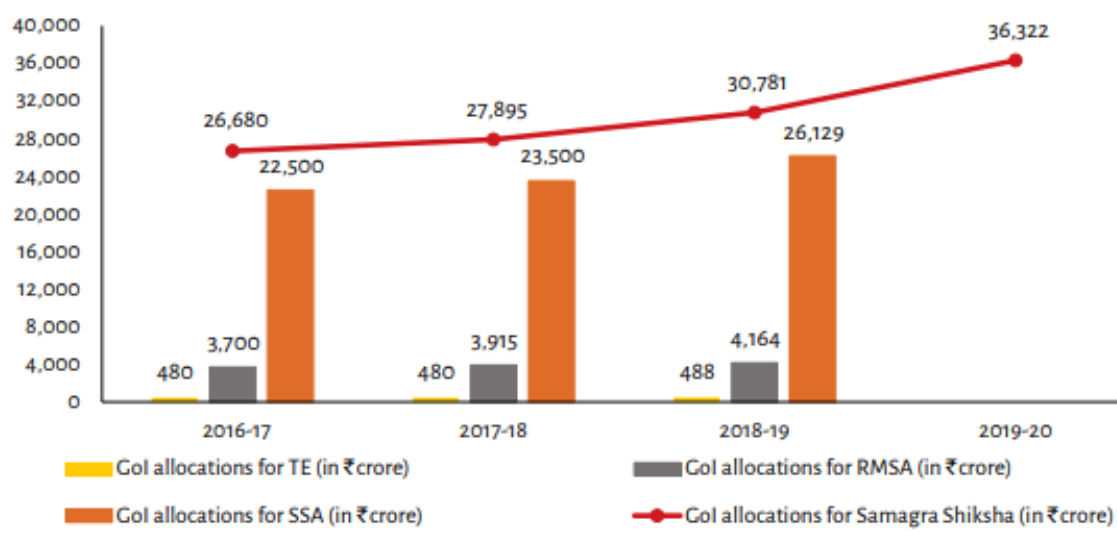
Sl	India			Literacy Rates of Scheduled Tribes in India			Literacy of Scheduled Tribes in Odisha		
	Overall	Male	Female	Overall	Male	Female	Overall	Male	Female
1	74.04%	82.14%	65.46	58.96%	68.53%	49.35%	52.24%	63.70%	41.20%

Source: Population Census 2011 @GoI

It is observed from the above table that the literacy rate of scheduled tribes is low as compared to the overall literacy rate of India.

1.2. Educational Participation of Tribals in India and Odisha

Education is our birthright because it will change the scenario of human civilization as a whole. It transforms the ideas, values, and knowledge from one generation to another. The rationale behind providing basic education with full efforts by any country it's due to its intensification. Providing universal access to quality education is the key to India's continued ascent and leadership on the global stage regarding economic growth, social justice and equality, scientific advancement, national integration, and cultural preservation (NEP, 2020). Therefore, the foundation level of education matters more than other levels. As per the UDISE plus report 2019-20, there are more than 15 lakhs schools, 97 lakhs teachers, and nearly 26.5 Crore students' comes under pre-primary to higher secondary level from a variety of socio-economic backgrounds. There is a separate budget allocated for the whole education system; for instance, for the years 2022-23, there are 1, 04, 277, 72 Crore, and from that, 63, 449 Crore allocated for school education (Union Budget 2022-23). There is also a specific budget allocated for Samagra Shiksha Abhiyan from 2017 onwards.



Sources: Budget from Union Expenditure Vol. 2

Figure 1.1: Allocations for Samagra Shiksha Abhiyan in 2019-20

It is observed from the above figure the amount allocated for Samagra Shiksha has been almost high (36,322 crores in 2019-20) as compared to previous heads of allocation. However, we have many education-related problems, especially in school education. So, let's look at the enrolment and retention rate in the previous year released by UDISE+, NIEPA New Delhi.

Table 1.4: All India Enrolment Ratio

Class	Types of Enrolment							
	GER		NER		ASER		Adj-NER	
	2017-18	2018-19	2017-18	2018-19	2017-18	2018-19	2017-18	2018-19
Primary	102.79	92.56	90.05	89.14	95.57	94.26	95.56	93.60
Upper Primary	88.27	89.98	70.52	68.99	88.23	88.55	80.20	76.97
Elementary	97.22	91.64	89.02	81.46	92.75	92.08	92.73	87.26
Secondary	76.47	79.55	50.23	48.60	73.61	72.14	61.61	55.64
Higher Secondary	48.13	58.56	27.77	30.78	39.32	44.64	-	30.78

Sources: UDISE & UDISE+, Ministry of Education, 2017-18 and 2018-19

The above table shows the different types of enrolment based on indicators at different levels of education at all India levels, which reveals a significant improvement in enrolment at the school level. However, still, it is far from the goal of the Universalization of education. As

per the table, in comparison to 2017-18 and 2018-19, the enrolment has been reduced to 2.63 million. Between 2017-18 and 2018-19, enrolment for class 1 decreased from 25.09 million to 24.75 million in 2017-18. Overall in students' enrolment, there is a decline of 1.3% (Meheta, 2021).

Retention Rate: Only 86 of the total 100 children who entered the system five years back could be able to reach Grade V; the balance of 14 children couldn't reach Grade V in 2018-19. The retention rate of girls and boys at the primary level is 86.90% and 85.70%, respectively. Only 56.90 and 38.99 percent could remain in the secondary and higher levels of education, whereas 43 and 52 percent dropped out of the system (Mehta, 2021). Let's understand the educational participation of tribal students in India and Odisha with the help of different government reports in detail.

Table 1.5: Gross Enrolment Ratio for ST Students

Level/ Year	Primary (I-V) 6-10 Years			Up. Primary (VI-VIII) 11-13 Years			Elementary (I-VIII) 6-13 Years		
	Girls	Boys	Overall	Girls	Boys	Overall	Boys	Girls	Overall
India									
2015-16	109.59	113.39	111.52	90.94	92.21	91.59	102.72	105.52	104.15
2016-17	105.16	109.00	107.11	90.32	92.05	91.20	99.68	102.9	101.21
2017-18	106.23	109.26	107.77	92.74	94.64	93.71	101.24	103.84	102.57
2018-19	105.64	107.63	106.66	92.18	93.62	92.92	100.66	102.45	101.57
2019-20	106.57	107.63	107.11	93.01	93.93	93.48	101.54	102.58	102.08
Odisha									
2019-20	96.1	98.5	97.3	98.1	100.5	99.3	99.2	96.8	98.0

Source: UDISE Plus, Ministry of Education

It is indicated from above table 1.5 that GER at the primary and elementary levels has decreased. Further, in Odisha, GER at the primary and elementary level also declined

compared to national GER. However, GER is increased at the upper-primary level in both cases.

Table 1.6: Gross Enrolment Ratio for ST Students

Level/ Year	Secondary (IX-X) 14-15 Years			Senior Secondary (XI-XIII) 16-17 Years			Higher Education 18-23 Years		
	Girls	Boys	Overall	Girls	Boys	Overall	Boys	Girls	Overall
India									
2015-16	70.75	70.69	70.72	36.34	38.15	37.27	12.9	15.6	14.2
2016-17	69.65	69.52	69.58	33.79	34.67	34.24	14.2	16.7	15.4
2017-18	73.11	72.99	73.05	39.37	39.51	39.44	14.9	17.0	15.9
2018-19	75.85	74.87	75.35	42.70	41.80	42.24	16.5	17.9	17.2
2019-20	77.24	76.22	76.72	43.90	41.92	42.89	17.7	18.2	18.0
Odisha									
2019-20	80.7	78.6	79.6	40.0	38.0	39.0	-	-	-

Sources: UDISE Plus, Ministry of Education, and All India Survey on Higher Education (AISHER) Reports, MHRD

Table 1.6 showed the significantly increased GER at secondary, senior, and higher education levels. However, GER in Odisha somehow declined overall at the secondary and senior secondary levels compared to national GER.

Table 1.7: Dropout Rates in School Education for ST Students

Level/ Year	Primary			Upper-Primary			Secondary		
	Girls	Boys	Overall	Girls	Boys	Overall	Girls	Boys	Overall
2015-16	4.18	4.29	4.24	9.64	9.70	9.67	26.28	26.27	26.27
2016-17	3.91	3.96	3.94	8.60	8.69	8.64	27.15	27.85	27.51
2017-18	3.48	3.82	3.66	6.14	5.95	6.04	21.36	22.90	22.14
2018-19	5.23	5.72	5.48	6.46	6.89	6.69	23.38	26.40	24.93
2019-20	3.45	3.90	3.69	5.65	6.15	5.90	22.49	25.51	24.03

Source: UDISE plus, Ministry of Education

It is observed from table 1.7 that dropout rates are high at the secondary level as compared to the primary and upper primary levels. However, dropout rates constantly decreased at every level compared to the previous year.

Table 1.8: Gender Parity Index for ST Students

Level/Year	Secondary (IX-X)	Senior Secondary (XI-XII)	Higher Education
2015-16	1.00	0.95	0.83
2016-17	1.00	0.97	0.85
2017-18	1.00	1.00	0.87
2018-19	1.01	1.02	0.92
2019-20	1.01	1.05	0.97

Sources: UDISE Plus and AISHE Reports, MHRD

Table 1.8 showed that GPI has marginally increased at the secondary school level and constant improvement at senior secondary and higher education levels.

Though the status of education in India is improving, specifically at the school level, it has not yet achieved the goal of education for all. Some people are unaware of education. Although there is no shortage in policies and programs, the loopholes in properly implementing these policies and programs prove to be lacunae in our education system. Some people can't access education; they even can't go to school. Many students can not complete school education as they haven't yet seen or even heard of school as an institution. According to Desai (2010), poor socioeconomic status of students and social discrimination in the classroom affects poor children's education. In rural areas, particularly in tribal areas, girls are restricted to home and household work; this restriction is for every aspect of economic and social life, such as girls' education. Still, girls are treated as burdens, and their priority is marriage (Kerai, 2017). It revealed that very a few enrolments of the children belong to Dalit, Adivasi & Muslim communities, and those who enrolled immediately then dropped out (Mokale, 2020). There are various policies framed to make accessible quality education for all. But the success of a policy depends upon its' implementation. Like, the Right to Education Act 2009 made education a fundamental right for every child, but the objectives of the RTE Act are not being fulfilled because fewer numbers of principals and teachers are aware of the act (Sethi & Mudgal, 2017). The quality of school education depends on physical infrastructure, teaching method, learning environment, type of books, qualification of teachers, attendance of teachers and students, and so on. Due to vacancies & absenteeism

of teachers and poor infrastructure in government schools, classrooms are multi-grade, i.e., in a single classroom, there is one teacher to attend children from different grades (Yadab, 2019). However, with the outbreak of the Covid-19 Pandemic, the education sector has suffered a lot. Further, due to the continuity of school closure, students face uncertainty, and many cannot afford an education through digital mode (Jena, 2020).

A few years back, education in Odisha was neglected by the people. But in recent years, Odisha has been rapidly progressing in its field of education. The government is working hard to bring improvements (Study Guide India, n.d). This state is equipped with various educational institutions, from pre-primary to university education. By implementing multiple educational schemes and policies to ensure quality education, it is in a progressing mode. There is constant encouragement from the government to improve Odisha's education. According to the NITI Aayog statistics, Odisha was in 7th rank in the school education index in 2016-17.

As per the Odisha School Education Programme Authority (OSEPA) school scenario @2020-21, 64, 185 total schools are available, from which 50,025 government schools and 5,844 govt. aided schools, 6,419 recognized private schools, and 232 central govt. and other schools, 1666 total unrecognized schools. The elementary and secondary school enrollment rates have increased up to 2018-19. However, the retention rate at the secondary school level has increased (94.64%) in the year 2018-19 as compared to that in 2014-15 (85.64%) (OSEPA Annual Report, 2019-20). To improve school education, the Govt. of Odisha follows many programs; these are

Right to Education Act, 2009: Odisha is the second state of India to implement the Right of Children to Free and Compulsory Education (RTE) Act, 2009, considering it a significant act in the history of education. The Department of School and Mass Education has taken proactive steps to implement this Act by reaching out to as many stakeholders as possible. Sarva Shiksha Abhiyan played a significant role in implementing RTE Act. This Act came into effect on 1st April 2010 (OSEPA).

Samagra Shiksha Abhiyan: Implemented from 2018-19, the Abhiyan focuses on improving quality education, enhancing learning outcomes, and using technology to empower children and teachers to develop school education(from class 1 to class 12) at the district level (Indian Express, 2020).

Skill on Wheels: Under the Samagra Shiksha Abhiyan scheme, the Odisha government launched the 'skill on wheels' campaign in 2018. The focus is on vocational education across Odisha. (Times of India, 2018)

OAVS: Odisha Adarsha Vidyalaya Scheme is an initiative by the government of Odisha to give quality English medium education in the CBSE pattern to the children of Odisha in each block. This scheme was inaugurated in 2015.

Smart School Project: A program introduced by the government of India under the 5T scheme to transform public schools with a focus on health care and education. The new smart schools have been developed with the modern infrastructure and environment for classrooms besides laboratories, libraries, and playgrounds. (Odisha Bytes, 2021).

Mo School Abhiyan: This is a platform to encourage inclusion. Through this, alumni and others can share their knowledge, experience, and financial contribution to the betterment of government schools.

Remote Learning Programme: There are some remote learning initiatives taken by the government of Odisha where online platforms are available so that it will be easy to access education for all. Various apps have been launched. Basically, during the Covid-19 Pandemic, this initiative plays a great role in school education. The initiatives are,

Odisha Shiksha Sanjog: It is a digital learning program through WhatsApp group to engage the students in teaching-learning activities.

Telecast of video lessons in Door Darshan, Odia: This is for class X students; Video lessons are being telecasted for two hours a day from 11 AM to 12.00 Noon and 3.30 PM to 4.30 PM.

DIKSHA Portal: Textbooks from class I to X have been converted to energized textbooks providing QR codes to each chapter and uploaded to DKSHA Portal and the OSEPA website.

Madhu APP: An e-learning app based on the syllabus in Odia language developed to bring virtual learning experience through the learner's mother tongue.

E-class through Microsoft teams/zoom/Google meet platforms: These platforms are used for online classes.

E-Vidyalaya App: The e-contents of ICT are uploaded for classes IX and X in this app to access students easily.

Distribution of books at their doorstep: Due to the covid-19 pandemic, teachers were responsible for distributing the textbooks at students' doorsteps.

Odisha Education Resource Portal: This is a comprehensive one-stop portal to meet the needs of students, teachers, and parents.

Student Academic Management: This online program has used for admission, registration, form-fill up, etc., in higher secondary school education (Vikash pedia, n.d).

1.3. Background of the Study

Education is to bring about all-round development and significantly improve the quality of life of an individual is an important matter of concern for national development (Mehta & Kapur, 1998:25). Moreover, It is a public good and public responsibility; hence it is a human right (UENSCO, 2022). However, inclusive and equitable quality education and lifelong opportunities for all will help a country succeed in achieving gender equality and breaking the cycle of poverty for millions of children, youth, and adults (UNESCO, 2021). While Article 21 A of the Indian Constitution (1950) added in 2002, new officially guarantees a child's fundamental right to free and compulsory education between the ages of six to fourteen years, the present status for accessing education remains stuck in-between rather different (Rupavath, Ramdas, 2016). For instance, elementary education has now rightly been capsulated through Sarva Shiksha Abhiyan & special focus has been given to the education of various disadvantaged sections of society & especially for children from scheduled castes and scheduled tribes. It has been highlighted that the present education system, specifically secondary school level, fails to develop a quality school education with some practical issues such as: schools' civil work progress is slow, districts having slow GER, high dropout rates, remain and having low GPI as per the Rashtriya Madhyamik Shiksha Abhiyan (RMSA- UDISE- 2015-16).

The journey of availing of quality education started with the formulation of the National Policy on Education, 1986. Through this policy, India provided a wide range of programs for achieving the objective of Universalization of Elementary Education (UEE). However, the major effort for quality education was started from the 1980s to the 1990s through different schemes and programs. These are Operation Black Board (OBB), 1987, Shiksha Karmi Project (SKP) 1987, Andhra Pradesh Primary Education Project (APPEP) from 1987 to 1996, Mahila Samakhya (MS) 1988, Bihar Education Project (BEP) 1991-92, Lok Jumbish Project

(LJP) 1992, U.P. Basic Education Project (UPBEP) from 1993 to 2003, District Primary Education Program (DPEP) 1994, and the Sarva Shiksha Abhiyan, (SSA) 2001. These programs were strengthened through the Right of Children to Free and Compulsory Education Act, 2009, with its strict norms and provisions of the Act from September 2010 (Samagra Shiksha Abhiyan, Draft Document, p 2). Above all, the programs helped India improve access to education across the country, especially successfully achieving gender parity in enrolment in primary education, but that is not the case in secondary education. Therefore, in the first steps toward making secondary education universal, the GoI planned the National Policy on Education, 1986, and the Programme of Action, 1992. These two policies prioritized improving equitable access to secondary education and the enrolment of girls, SCs, and S.T.s and further recognized secondary education as a critical instrument for social change and planned for expansion (Para 5.13 of the NPE, 1986). The policy also emphasized on

“Increasing access to secondary education, with particular focus on participation of girls, SCs, and, STs, increased autonomy of Boards of Secondary Education to enhance their ability to improve quality; introduction of ICT in school curriculum for coping with globalization; renewed emphasis on work ethos and values of a humane and composite culture in the curricula; and vocationalisation through specialized institutions or through the refashioning of secondary education to meet the manpower requirements of the growing Indian economy (Para 5.13 to 5.15 of the POA 1992 as cited in Samagra Shiksha Abhiyan Draft Document, p 3).”

Further accessing secondary education, the Government of India (GoI) launched a flagship program called Rashtriya Madhyamik Shiksha Abhiyan (RMSA) in 2009. The major objectives of the program were to provide quality interventions. For instance, the program focused on the appointment of teaching staff, enabling children to experience a rich curriculum, sufficient resources for teachers to teach and children to learn, and effective school governance and management, including community participation at the school level. Furthermore, in 2013-14, another four centrally recognized schemes for secondary education were launched, such as ICT in Schools, Girls’ Hostel, and Vocationalisation of Secondary and Senior Secondary Education and Inclusive Education for disabled children at the secondary stage were focused on RMSA program. When we focus our quality school education, trained teachers become the main component for achieving the core destiny. So for

this reason, NPE, 1986 also focused on the teacher education system for improvement in the matter of institutional status, professional competencies of teachers, and teacher educators. Therefore, there are many training institutions established, such as the District Institute of Education and Training (DIETs), Colleges of Teacher Education (CTEs), and Institutes of Advanced Studies in Education (IASEs). Nowadays, the role of SCERT as an academic authority (state-wise) u/s 29(1) of the RTE Act, and the major focus area on the strengthening of state teacher education institutions (Samagra Shiksha Abhiyan, Draft Document, p 3).

Hence, the common objectives of all the Schemes are to enhance access through the expansion of quality school education, promote equity through the inclusion of disadvantaged groups and weaker sections, and improve the quality of education for all in general school education specifically. However, after the persistent effort of the Central and State Governments, these schemes have significantly addressed several major gaps in the school education system. They have contributed considerably towards laying a strong foundation for an equitable quality school education system in the country. After all, we still face many problems regarding access to quality education at every level in our country. Consequently, a new action plan, i.e., the Three-Year Action Agenda, has been prepared, particularly focusing on the shift in the approach to the development of school education from input-based to outcome-based central sector interventions with a new ‘paradigm shift’ in the school education system. The Union-Budget, 2018-19, has proposed to treat school education holistically without segmentation from pre-nursery to Class 12, and further, it is called Samagra Shiksha Abhiyan (Samagra Shiksha Abhiyan, Draft Document, p 3 & 4).

1.3.1. Brief Profile about Samagra Shiksha Abhiyan (SSA)

Samagra Shiksha Abhiyan is an integrated centrally sponsored scheme on school education that foretells the school as a continuum from preschool, primary, to senior secondary levels. The major vision of the scheme is in line with the Sustainable Development Goal (SDG) for education on these two specific objectives, such as

“SDG – 4.1 stated that “By 2030, ensure that all boys and girls complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.”

“SDG – 4.5 specified that “By 2030, eliminate gender disparities in education and ensure equal access to all levels of Education and vocational training for the

vulnerable, including persons with disabilities, indigenous people and children in vulnerable situations.”

Moreover, it subsumes the three schemes, i.e., Sarva Shiksha Abhiyan (SSA) in 2001, Rashtriya Madhyamik Shiksha Abhiyan (RMSA) in 2009, and Teacher Education for effective interlink with each other. The scheme focused on improving systems-level performance and overall schooling outcomes, which can be the stress of the combined theme and incentivizing States towards enhancing quality education. However, the scheme has major objectives such as

“Provision of quality education and enhancing learning outcomes of students; Bridging Social and Gender Gaps at school Education; Making certain equity and inclusion in the slightest degree levels of faculty Education; Making certain minimum standards in schooling provisions; Promoting vocationalisation of education; Support States in implementation of Right of youngsters to Free and required Education (RTE) Act, 2009; Strengthening and up-gradation of SCERT/State Institutes of Education and DIET as nodal agencies for teacher training. Further, the scheme has some crucial outcomes for school education in India, these are universal access of school education, equity and quality, promoting vocationalisation of education, and strengthening of teacher education institutions (Samagra Shiksha Abhiyan, Draft Document, p 5).”

The scheme emphasized some crucial interventions such as

- (i) Universal access such as infrastructure development and retention
- (ii) Gender and Equality: Focusing on Girls', SCs, STs, Minorities, CWSN students
- (iii) Inclusive Education
- (iv) Quality
- (v) Financial Support for Teacher Salary
- (vi) Digital Initiatives
- (vii) RTE entitlements for instance uniforms, textbooks, etc.,
- (viii) Pre-nursery Education
- (ix) Vocational Education
- (x) Sports and Physical Education

- (xi) Strengthening of Teacher Education and Training: Unified training programme, innovations in pedagogy, and mentoring and monitoring
- (xii) Monitoring
- (xiii) Programme Management
- (xiv) National Component

It also focused on the two T's, i.e., Teacher and Technology, where teachers deliver quality teaching using technological aids during classroom transactions. The scheme initiates funds based on prefixed criteria, for instance, enrolment of students, committed liabilities, learning outcomes, and various performance indicators. Further, the Samagra Shiksha Abhiyan anticipated that the first choice in interventions must be to Educational Backward Blocks (EBBs), Left Wing Extremism (LWEs), Special Focus Districts (SFDs), Border areas, and 115 Aspirational districts (Samagra Shiksha Abhiyan, Draft Document, p 6). This scheme delivers many core aspects for improving the overall quality of school education; however, the present study demands more exploring the concept of equity and inclusion and quality parameters for secondary school education. Therefore, let's understand the concept of equity, inclusion, and quality components as prescribed by this scheme.

1.3.2. Equitable and Inclusiveness in School Education

As per the scheme, quality will improve if we ensure equity and inclusion at all levels of education, specifically in school education. Some key parameters as defined in the following perspectives (Samagra Shiksha Abhiyan, Draft Document, p 44):

- (I) **Equity:** It means not only equal opportunity, but also facilitating such type of learning conditions which the disadvantage sections of the society such as children of SC, ST, Minorities, landless agricultural worker and Children with Special Needs (CWSN), transgender children, etc., can benefit the opportunity in an inclusive environment which is free from prejudice.
- (II) **Gender:** Scheme not only making efforts to enable girls to keep pace with boys but also followed the National Education Policy (NEP), 2020 perspectives towards significant intervention to bring an essential change in the status of women on view of education.
- (III) **Access:** It is not only ensuring that schools become accessible within specific kilometers but entails an understanding of educational needs for SC, ST, and other

sections of the most disadvantaged groups whom traditionally knows as excluded categories for availing basic education.

- (IV) **Quality with Equity:** As per the scheme equity is an integral part of improving quality education. Therefore, scheme focused on improving the quality of teacher training and education, curriculum, language, educational planning and management with special attention towards introducing equitable approach at every level.

1.3.3. Quality in Education vs. Quality of School Education as per SSA

As per the Samagra Shiksha, quality means a systemic trait, an overreaching attribute, and a system's capacity to reform itself to improve its ability to address its weakness and develop new capabilities and value dimensions. It stated that improving the quality of education will succeed if it promotes equality and social justice hand in hand. On the other hand, when quality comes to education, it highlights two principles, i.e., learners' cognitive ability. The second one is promoting responsible citizenship values and attitudes and fostering creative and emotional development possible through education. Therefore, the scheme focuses on the holistic development of learners in a system of schools, i.e., from pre-school to higher secondary school level. Further, the scheme emphasizes adequate inputs at the school level, such as: it includes well-equipped infrastructure, effective teachers, a quality curriculum, realistic assessment for effective learning, and proper career guidance and counseling provision for adolescents, as well as the address to the diverse learning needs (Samagra Shiksha Abhiyan, Draft Document, p 77). Hence, quality education is concerned with various dimensions of enhancing quality in the teaching-learning process, and the followings are a few quality points

“Learners are active participants rather than passive recipients. They are ready to learn and participate actively in the learning process and construct their own knowledge; Teachers are facilitators rather than instructors. They are motivated to guide their children at every step. They identify the learning needs of children and use a variety of pedagogical practices that are appropriate for the content and steer the children’s learning towards their goals; The environment in a classroom is healthy, safe and have proper infrastructure facilities conducive for learning; Curriculum is class specific, stage specific, socially relevant, unbiased, gender sensitive, and has

content that upholds the principles enshrined in the Constitution and one that resonates with our values and ethos. It is to maintain the coherence as per the systemic continuum; The pedagogical processes or the methodology adapted reflect the paradigm shift from teacher centric to child centric. A variety of methods are adopted suitable for the topic and also to the contextual needs; The teaching learning process is dynamic, with active participation of students, use of ICT and other digital resources that transform the classroom learning to move beyond the classroom walls, and The outcomes are aligned with the aims and objectives of education and not just limited to acquisition of knowledge. Apart from theoretical knowledge, the acquisitions of basic skills of literacy, numeracy, life skills, values like peace, tolerance, knowledge in such areas as gender, health, nutrition, disease prevention are taken into consideration (Samagra Shiksha Abhiyan, Draft Document, p 79).”

Above these elements are cautiously considered before planning activities in school towards visualizing a quality classroom. However, for a quality classroom, a school need an interactive place bustling with different activity and all types of infrastructure facilities for quality learning, where students have the freedom to explore and construct their knowledge. The teacher's role must be multi-dimensional such as a facilitator, a guide, a counselor, a classroom manager, and a co-partner in knowledge building. Quality classrooms also permit parents and community members to share and discuss learners' problems with Head Master and teacher for corrective measures.

Quality of Secondary School: The scheme emphasized quality aspects for improving secondary school education based on the following heads such as (Samagra Shiksha Abhiyan, Draft Document, pp 18-21):

1. Samagra Shiksha Abhiyan will help States/UT to establish new schools by upgrading approach and it also strengthening exiting secondary schools and opening of additional classrooms as per need of the school.
2. For universal access of secondary school the scheme will support for access secondary school within 5 km and higher secondary school within 7-10 km from habitation of students residence. However, it must ensure adequate numbers of students' enrolment).
3. Government will open new and feasible schools in deficient or remote areas with having some vital features such as preferable two sections each for classes IX and X

and would be available with other necessary infrastructure. Further, it has provision for rain harvesting system, solar panel, and all school buildings will be disable friendly.

4. For new or upgrading secondary schools facilities would include additional classroom with furniture, Head Master Room, laboratories, library, computer room, vocational lab, Art and crafts room, safe drinking water facility, separate toilets facilities with water facility for boys, girls and CWSN students. However, facilities improvised when it comes to new composited schools i.e., from classes I to XII. The facilities are building for building less school, additional classrooms, art/craft/culture room, workshop for vocational education, electrifications, kitchen shed, ramps, furniture, laboratories equipments, office/common room, building as learning aid, playground, boundary wall/ fencing, etc.
5. For secondary schools it provides four classrooms for two section school/ two class rooms for one section and one integrated science laboratory.
6. A lump sum recurring assistance up to Rs. 25 lakhs per new/upgraded secondary school will be provided under Samagra Shiksha scheme for deployment of manpower in new secondary schools. It also provides subject wise teachers for all core subjects, especially for arts and crafts, sports and physical education and co-curricular activities.
7. For strengthening of existing secondary school data will be collected and store under UDISE and further it will be helpful for preparing school development plan after tracking the exact problems faced by schools.
8. After proper verifications and identifications in the line of transportation facilities, and school nearest to the neighbourhood norm is not practical at that time, the scheme will support residential facilities within school premises for both boys and girls.
9. Rs 80 lakhs per annum will sanctioned to Residential school having 100 children having classes VI to X and Rs 1 Crore per annum for classes VI to XII. Further, Rs 25 lakhs for exiting stand alone hostels for classes IX to XII, especially for all expenses including the manpower cost.
10. Residential facilities will be provided, especially to the female teachers assigned at sparsely populated and hilly and densely forested areas; further, priorities will be given to EBBs, LWEs, SFD and 115 inspirational districts as indentified by the Government of India.

As per the Samagra Shiksha, tribal areas are concentrated in hilly, remote, or deep forested areas, so physically accessing those schools is very difficult. Further, the scheme observed that the major challenge faced by tribal children is communicating language with teachers and being unable to understand the classroom transactions. Therefore, the ST students' course content is harder to understand, and sooner or later to drop out. Hence, this scheme highlighted some interventions towards overcoming the challenges faced by the tribal children, such as:

- (i) Improving quality education in various Ashram Schools as established by the Tribal Welfare Department.
- (ii) Providing multilingual education through introducing local language taught by the native speakers.
- (iii) Teaching Learning Materials (TLMs) should be facilitating in local language as per the availability within the community.
- (iv) Training or resource centres should be established in tribal concentrated areas for facilitating training, academic and technical supports towards development of pedagogical tools and TLMs incorporate to multilingual situations.
- (v) Sensitized teachers towards tribal culture and practices and further training to teach in multilingual education.
- (vi) Teachers should incorporate local knowledge in the curriculum and textbooks.
- (vii) Emphasizing on active participation of community members in school activities to reducing social distance between school and the community.
- (viii) Importance on special training for non-tribal teachers to work especially tribal dialects used in tribal areas.

The scheme also emphasized multi-lingual education and bridge courses for tribal children through support from NGOs and scholars. The list of interventions as prescribed by the scheme has described below

“Teaching in the local language by recruiting native speakers; Development of educational material in local languages using resources available within the community; Establishing resource centers in tribal dominated States for providing training, academic and other technical support for development of pedagogic tools and education material catering to multi-lingual situations; Training of teachers in multilingual education; Sensitization of teachers to tribal cultures and

practices; Incorporation of local knowledge in the curriculum and textbooks; Creating spaces for cultural mingling within schools so as to recognize tribal cultures and practices and obliterate feelings of inferiority and alienation among tribal children; Involvement of community members in school activities to reduce social distance between the school and the community; Textbooks in mother tongue for children at the beginning of Primary education where they do not understand regional language; Special training for non-tribal teachers to work in tribal areas, including knowledge of the tribal dialect; Special plan for nomadic and migrant workers (Samagra Shiksha Abhiyan, Draft Document, pp 92-93)."

1.4. The Rationale of the Study

In India, education is a basic right for every child, and as we know, the whole world provides basic education free and compulsory. However, a few countries have achieved excellence in providing quality education, such as Finland, the United States, China, Russia, etc. In this matter, India is under process with its new plans, policies, and programs. One such program is Samagra Shiksha Abhiyan (SSA), by which further holistic education should be made possible with the help of subsumes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA), and Teacher Education (TE). However, recently in Odisha, due to low attendance of students in the year 2015-16 to 2018-19, there were 1236 Primary Schools, 42 Upper Primary Schools were closed, and in the middle session, i.e., 2019-20 again, there are 475 Primary Schools, 13 Upper Primary Schools, 3 Government and 3 Government aided high schools were closed (Khabara Odisha, November 2019). The literacy rate among girls compared to boys is very low in the KBK district (Das, 2009; Sailabala & Mahesh, 2008; Suthar, et al., 2016). Lack of proper infrastructure is the school's main drawback and weakness and affects the quality of education and students' comfort level (Geddiam, 2015; Naik & Ragi, 2015). Some schools don't have sufficient pure drinking water facility (Naik & Ragi, 2015; Patra, 2016). Most children reported that they frequently faced health problems like fever, jaundice, and stomach pain due to unhygienic conditions in schools (B, Swaroopa, 2007). The difficulties faced by the tribal children in schools are many; these are poor classroom facilities, lack of ventilation in the classroom, lack of drinking water, lack of toilet facilities, long-distance school, lack of teachers, rude teacher behaviors, and teachers are involved in their work (B, Swaroopa, 2007; Dubey, Trigunait and Dwivedi, 2014; Mohalik, 2011). Generally, tribal areas are situated on hills with deep forest areas, so the basic

problems are unavailability of electric connection, water supply, poor transportation facilities, and mobile network. The children of these habitations have to walk kilometers, do ups and downs from hilly areas through very rough rocky paths, and cross bridgeless rivers/streams during the rainy season. The dropout rates in the schools remain high in the tribal backward regions due to: lack of communication facilities, schools having single teachers, teachers in interior areas neglecting their duties, irregular supply of mid-day meals, and the school environment does not attract the tribal students, some schools are not having their buildings and absence of tribal cultural and regional materials, poor economic condition, lack of conducive learning environment at home, the attitude of parents towards schooling (Biswas & Krishnan, 2017; Dash, 2015; Ramdas Rupavath, 2016; Rout, 2015). There are several causes of dropout among tribal girls like: agricultural necessities, call to sit with younger babies, observance or rituals or fairs or festivals wither at household or nearby village, call to company her mother for collection of forest product, i.e., collection of "tola and Mahula" call for making leaf cups and plates, call for going to a nearby market for the selling of forest products and purchasing weekly grocery, dress, and other requirements, call to remain at home because of illness of family members (Biswal, 2013; Soren, 2016; Suther, Chauhan, and Meena, 2016). In some cases, the family's positive perception of their girls' education is mostly high classes, and some parents regularly send their children to school (Nayak, 2014; Puhan, et al., 2013). The tribal students face problems relating to the medium of instruction; for instance, they understand the Odia language but cannot understand teaching (Behera, 2015). There is a lack of awareness about the government scheme among parents (Shrama, 2017). Due to Public-Private Partnerships in education, most of the community is engaged in the school to educate the tribal children (Sahu, 2013).

From the above analysis and the review of related literature in chapter II, it has been concluded that there is a lack of studies conducted on Secondary Schools based on the Samagra Shiksha Abhiyan program, especially in tribal districts of Odisha. The studies also didn't focus on all components and dimensions of quality education. So, the researcher is interested in conducting a study on Quality Education in Secondary Schools of Tribal Districts of Odisha in the Context of Samagra Shiksha Abhiyan. From the above analysis and the review of related literature in chapter II, there is a methodological gap that most studies followed survey design, and fewer studies focused on the method triangulation approach. So there is a need for method triangulation, i.e., Survey design with an In-depth case study design for a better understanding of the quality concerns at ground level. Hence, the

researcher seeks to appraise the quality of education and the issues related in such secondary schools with regard to curricular inputs; curricular and co-curricular transactions; innovative classroom practices; assessment practices; teacher-pupil relationships; school-community relationships; extension activities such as: lectures, seminars, workshops, study tours, etc. school environment; infrastructure and residential facilities; and carrier counseling and placement cell. The suggestions shall be framed to increase quality education for ST students in the state and the country in general. Here, the study title fits "Quality Education in Secondary Schools of Tribal Districts of Odisha in the Context of Samagra Shiksha Abhiyan."

1.5. Statement of the Problem

Considering the emphasis of Samagra Shiksha Abhiyan on the provision of quality education that major focuses on enhancing learning outcomes of students, bridging social and gender gaps in school education, ensuring equity and inclusion at all levels of school education, ensuring minimum standards in school provisions an attempt has been made in this study to find out the "Quality Education in Secondary Schools of Tribal Districts of Odisha in the Context of Samagra Shiksha Abhiyan."

1.6. Research Questions

The study addressed the following research questions:

1. What extent the infrastructure arrangement including residential facilities for students and employees available in the schools under the study, are contributing for expanding quality education?
2. What is the status of equity and inclusion in enrolment, retention & achievement with respect to gender, category and CWSN in the schools of tribal districts of Odisha?
3. What are the classroom transactions and assessment techniques used for learning?
4. What is the over-all performance for promoting quality education in the schools of tribal areas?

1.7. Objectives of the Study

1. To make a status survey of infrastructure facilities for students and employees available in secondary schools in tribal districts.
2. To examine what extent the equity and inclusive issue have been addressed by the school in terms of enrolment, retention & achievement.

3. To find out classroom transaction processes in tribal areas with reference to teacher performance.
4. To make in-depth studies of selected secondary schools to explore quality practices.

1.8. Operational Definition of the Key Terms

Quality Education: Quality is a systemic trait rather than only a feature of instruction or attainment. It is also part of the value dimension. In this study, quality education means infrastructure arrangements, including residential facilities, equity and inclusion in enrolment concerning gender and socio-economic status and CWSN, classroom transactions such as assessment for learning, of learning and as learning, students learning outcomes, and school community relationship.

Secondary School: This study focused on only secondary schools, i.e., classes IX and X.

Tribal Districts: In Odisha there are thirteen tribal districts as per the governmental data i.e., Balasore, Mayurbhanj, Keonjhar, Sambalpur, Sundargarh, Deogarh, Gajapati, Kalahandi, Rayagada, Koraput, Malkangiri, Nabarangpur, Kandhamal. The undivided districts of Koraput, Bolangir and Kalahandi of Odisha state (Popularly known as KBK districts) have since 1992-93 been divided into eight districts i.e., Kalahandi, Nuapada, Bolangir, Sonepur, Koraput, Malkangiri, Nabarangpur, and Rayagada. In this study Rayagada, Kalahandi, Nabarangpur, Koraput and Malkangiri tribal districts are selected for further study.

Samagra Shiksha Abhiyan: It is an overarching program for the school education sector extending from pre-school to class 12. It has been, therefore, prepared with the broader goal of improving school effectiveness measures in terms of equal opportunities for schooling and equitable learning outcomes.

1.9. Delimitations of the Study

- The study is delimited to tribals as well as tribal blocks and districts such as Bissam Cuttack block from Rayagada, Bhawanipatna block from Kalahandi, Papadahandi block from Nabarangpur, Boipariguda block from Koraput, and Podia block from Malkangiri of Odisha.
- Only Secondary Schools i.e., class IX and X students, Head Masters, Teachers, and Parents were participated in my research

- The study is delimited to check the status as per the norms of Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Samagra Shiksha Abhiyan (SSA) respectively.

1.10. Plan of the Study

In Chapter- I, the researcher focuses on the conceptual framework by introducing the study's overall idea, then a brief profile about scheduled tribes and overall educational participation. Further, it also focused on the background of the study, including details about Samagra Shiksha Abhiyan, the study's rationale, statement of the problem, objectives of the study, research questions, and operational definitions of key terms and delimitations of the study. **Chapter- II** deals with the review of the related literature of the present study. **Chapter- III** deals with the design and methodology of the study. **Chapter IV** deals with the analysis of collected data, interpretation of the result, and discussion. Finally, Chapter V summarizes findings, discussion, feasible recommendations to improve the status of quality education, and suggestions for further research.

CHAPTER II

CHAPTER II

REVIEW OF RELATED LITERATURE

2.0 Introduction

A thorough analysis of the related studies has been made to design the present study for framing the methodology, research tool, sample size, sampling technique, and data analysis. The literature reviews mostly used e-journals and primary and secondary schools level research studies (Online e-journal publishing sites likewise Elsevier, Sage Publication and Pro-Quest, Taylor and Francis, Springer). The literature related to this study sheds light on the following themes.

2.1 Initiatives and Learning achievements

2.2 Quality schooling: Overall performances

2.3 Enrolment, Dropout, Retention and Literacy

2.4 Socio-economic status and Girls' Education as well Health Issues in Tribal Areas

The details of reviews are explained in theme wise:

2.1 Initiatives and Learning Achievements

A study conducted by **Das and Anand (2017)** on “*Promoting secondary education among girls from educationally backward blocks: the case of Kasturba Gandhi Balika Vidyalaya*”. The following objectives were addressed by researcher such as: assessing the quality of education in terms of infrastructure facilities; perceptions of girls about the positive side and problems of studying in KGBVs, and to find out regarding their upcoming planning to continue education; to study the opinions of all the stakeholders including teachers, parents, wardens and local NGOs with regard to the strengths and weaknesses of KGBVs. Two KGBVs were selected purposively as sample. The sample consisted of sixty (60) girls, thirty (30) other stakeholders included in the study. The data were collected through two tools i.e., focus group discussion (FGD) and in-depth interview. The study found that free education and residential facility was a major attraction for studying in KGBVS. Major issues were lack of sufficient buildings, poor condition of washrooms, kitchen and utensils and there was no proper security provision. It was also revealed that most of the girls joined schools due to attraction of food and residential facilities, but when school lacked in these, some girls could not continue their education till the final grade of the KGBVs. Meanwhile, some received a good quality education witnessing satisfaction with the services presented during their learning process. Moreover, the well planned time table also included sports and games

period of prioritising leisure in a student's life. Also parents claim that they get their girls admitted to KGBVs due to the upgrading quality education with satisfactory results in the past few years. The study also revealed that parents and teachers were not aware about KGVB scheme.

Sanjeev, et al., (2017) conducted a study on *“Tribal education in India: a scenario of financial inclusion”*. It described that under Article 275 (1) of the Constitutions of India there is a provision by Government to support a part of financial assistance for setting up of 100 Ekalavya Model Residential Schools (EMRS) in 20 States from Class VI to XII which has a aim of Ekalavya Model Residence School is to assist Schedule Tribe students to enjoy the opportunity to enrol in higher education and vocational courses, as well as higher-level jobs in public sector. A fully centrally sponsored scheme known as post-matric scholarship is under implementation which is only for ST students through which an estimated number of 11.45 lakhs ST students across 24 states/UTs will be benefited. Presently there are 136 districts in 11 States are coming under the scheme. The government interventions in education are to assist the Schedule Tribe community so that they can build their confidence and to make them at par with other community from all perspectives.

A study conducted by **Sharma (2017)** on *“Educational inclusion by facilitating access of the girls at margins: exploring their enrolment status in KGBVs of Jammu division”*. Majorly objectives focused on enrolment status of girls in Kasturba Gandhi Balika Vidyalaya guidelines and to explore the factors behind the enrolment trends of girls. Survey design along with random sampling techniques was used for this study. The semi structured interview schedule was applied for data collection, and along with maintenance of enrolment records. Further, study showed with just 60% enrolment in KGBVs falling under Jammu division is far less than the allotted number of seats. Amid lack of cooperation from the parents to send daughters to school, followed by higher authority's negligence for girl child education exhibits low enrolment. Continual unawareness about development schemes, lack of basic infrastructural facilities, accommodation problem due to functioning of KGBVs in rental building, security problem in the hostels the parents even fear to encourage their daughters to step out the house.

Hansdah (2016) conducted a study on *“Impact of residential schools and current challenging issues of tribal education in Odisha”*. The study highlighted current challenges and issues behind the tribal parents to give education to their children, and impact of residential schools on tribal life and culture. It was a descriptive survey design and data were

collected from secondary sources. The result of the study showed that there are many challenges and issues behind the tribal parents to educate their children such as: geographical location of the village, attitude of the parents, poverty, and availability of teachers' related problems. It also found that undoubtedly, Ashram School encourages the deprived tribal children as it is a tough task for their parents to afford to send their children to access basic education. While parents are already battling with financial crisis, their children's expenditure on food purchase of study materials, and books, dresses for student, and from travelling from home to school and back to home during vacation which creates more pressure on parent's unmanageable economy.

A study conducted by **Hansdah & Puhan (2016)** on "*Role of residential schools in empowering tribal education in particular reference to the women section of the society: a critical analysis*" with following objectives such as: to differentiate the role of KISS (Kalinga Institute of Social Sciences) from KGVB for empowering tribal women; to assess the ongoing activities of KISS for developing skill, among tribal women and to document the current awareness of KGVB tribal women about education and life. The design of the study was descriptive survey. Total 200 samples selected for the study i.e., 100 girls from KISS and 100 girls from KGBV through random sampling. The researcher used questionnaire as a tool for data collection. The study found that all kinds of facilities are available at KISS with comparison to other private schools, and comparison to the residential schools. There are well organised teaching learning sessions along with all the other co-curricular activities at KISS with comparison to KGVB, because at KISS all the facilities along with staff are sufficient according to the requirement. To bring empowerment among the tribal women for their life and adjustment, life skills education is being provided at KISS which is very effective for tribal empowerment. It was found that near about 50% KGVB students have strong determination and also they are aware about the current role of education in their life but the current schooling pattern may not stimulating them to flourish their innate qualities, so they are still now not able to empower themselves properly.

Imam, Ali., et al., (2016) conducted a study on "*Comparative study of schools under government and private management with respect to achievement at secondary stage of education in the district of Lucknow*". With a sample size of 343 secondary school students, the study had an objective to compare the academic achievement of private and government schools, boys and girls, of class IX in discrete units along with difference between achievement of them in both government and private schools. The researcher used simple random sampling techniques for this study followed with two scores were obtained from

school record card i.e., personal information questionnaire and academic achievement. After the analysis of obtained data using computation of means and standard deviation, computation of standard error and t-test, and the significant difference between the means were measured. The findings exhibited that achievement level was not at all up to the mark in both private and government schools. It is also found that Class IX boys in private schools have performed excellent in academic achievement compared to their government schools counterpart & same result in Girls academic achievement i.e., girls' outscored in private schools compared to their government schools.

A study conducted by **Wajeha Thabit Al-Ani & Omer Hashim Ismail (2015)** on "*Can mission predict school performance? the basic education in Oman*". The study aims to find out the mission statements and it's relation with performance of basic education schools in Oman. It was also investigated the process of mission statement frame. The researcher used sequential mixed method research design along with 161 mission statements & 855 regular public basic education schools were further selected through random sampling in this study. There were 12 themes of mission statements in this study, these are achievement in academic field; professional development and application of technology; partnership in social perspectives; learning outcomes excellence; reconstruct the school surroundings; Islamic values and ethics; modern teaching strategies; scientific research methods & student's talents. The school's performance was the core elements that improved through the school mission statements. It was particularly to help principals in focusing on making their schools better. It was also discovered that the mission of all basic education schools was to increase in achievement of student learning.

Sahu, Janmejy. (2013) conducted study a on "*Educational achievement in tribal area through Public Private Partnership: a case study of Odisha*". The researcher used descriptive method basically on a qualitative research which includes observation method followed with document analysis, and in-depth interviews. It argued that private organizations with government collaboration will be helpful in utmost enrolment of tribal student in the school and it will help among the tribal parents about the productive future of their children. As per the discussions made in the studies, it is found that to bring improvement in educational facilities, and to strengthen the institutions with the involvement of community. There are needs of the public private partnership in education for which good quality education can be served for the tribal children. Hence, engagement of private organizations in education sector has been approved by the government of Odisha. An urge to kick-start public private partnerships in educational scenario has occurred due to the irregularities in the

developmental activities and facilities in the tribal regions of Odisha predominantly in the mining tribal areas of Keonjhar and Sundargarh districts. The researcher also found that non availability of sufficient government teachers stands as a barrier in tribal areas of Odisha.

Mohanty (2003) conducted a study on *“Behaviour patterns on achievement of tribal and non-tribal children and implications towards teaching-learning processes”*. This study dealt with the difference between tribal and non-tribal sub-culture groups’ performances on meta linguistic, reading, and achievement in classroom. The study showed that tribal did better on meta-linguistic tasks on the other hand non-tribal children performed better than their tribal counterparts in reading comprehension. This revealed that the changing environment and exposure to various opportunities cultivate varied results.

2.2 Quality Schooling: Overall Performances

Patra, S.K. (2016) conducted a study on *“A critical study of Ekalavya Model Residential Schools (EMRS) of Odisha: an analysis”*. The study has given emphasis on the situation and quality of education and the initiatives taken by Government for universalizing the elementary education. The researcher found that the Odisha EMRS support classroom and teaching at the level of understanding of the tribal students is qualitative and effective. In some incidents the students have a little problem following the language of the teachers’. The quantity of Pre-Matric Scholarships of the boarders is not sufficient. Further, there was adequate infrastructural facilities available in the school campus, however, when it comes to hostels except the rooms, conditions of all other facilities relating to study atmosphere are not satisfactory. EMRS offer higher hygienic centres to the students. But in a few schools, enough natural consuming water isn’t always to be hard to them. Furthermore, school teaching staffs are highly qualified and eligible for their respective positions, on the other hand there are some issues in physical facilities such as un-sanitized urinal, lavatories along with the school premises sometimes prove fatal to health of not only teachers but also on our nation’s future shapers. The contractual staffs are getting negligible payment.

A study conducted by **Pruet. P., et al., (2016)** on *“Students’ technology experience, learning styles and attitudes on understanding tablet computer usage among primary school students in underdeveloped areas”*. This study inquired learning styles of students, attitudes towards use of tablet computer and linkage to their academic performance. The researcher studied 213 numbers of students from economically deprived regions of North Thailand. The Survey method and questionnaire tool was used in this study. The researcher found that there are some factors affected students’ academic performances such as collaborative learning styles,

technology experiences, and anxiety. Further study found that there have been vital variations with respect to students' gender and geographical locations i.e., urban vs. rural. The investigator additionally discovered that girls students had a better visual learning vogue ($M=4.23$, $P<.032$) than boys students ($M=3.96$), and regarding geographical location, rural students had higher learning interest and a higher level of anxiety about being used tablets ($M=1.71$, $p < .028$) than the urban students ($M = 1.33$).

A study conducted by **Kim, H.J and Jang, H.Y. (2015)** on "*Factors influencing students' beliefs about the future in the context of tablet-based interactive classrooms*". The researcher investigated on tablet-based interactive classrooms and students' perception on it, and their beliefs regarding the upcoming days, and self-efficacy for knowledge in Korea. The researcher used a model called structural research model which is based on following aspects such as ease of use, usefulness and satisfaction which was mainly depend on experience through use of tablet by students and partial least squares method. The researcher discovered that in tablet-based interactive classrooms students' gained experiences such as easy and useful, and brought satisfaction among the students is significantly affected by their perceptions towards deeper learning experiences through use of tablet which was significantly influenced their future requirements and self-awareness for further learning.

Mohalik and Sethy (2015) studied on "*Impact of RMSA programme on quality of secondary education in Jharkhand, India*". The study followed survey method. Study found that majority (70%) of secondary schools of Jharkhand states located more than 5km from students' habitation. The study revealed that majority of the secondary schools have drinking water facilities, functional toilets, electricity, fans, well ventilated, lighted classrooms, playgrounds, labs, library room facilities. The most of the secondary school classes were overcrowded in nature along with high pupil teacher ratio. Majority of secondary schools don't have hostel faculties, staff quarters, ramp and other facilities for CWSN students, computer labs, internet facilities, e-Pathshala in rural areas. The study also found that majority of schools don't have regular Head Master and running with half of the subject teachers. However, most of the secondary schools have non-teaching staffs such as clerks and peons. All most all secondary schools in Jharkhand state have proper governance and management such as having SMDC and its related norms, supervised by higher authorities, PTA meetings, Baal Sansad, academic calendar, school improvement plan, and biometric attendance, except grievance redressal mechanism. The overall enrolment and also category wise of class IX and X was decreased over the years. The study also revealed relating to classroom observation that the teachers having more qualifications perform well in most of

the aspects of teaching and majorly used aspects of teaching by teachers was often and very often. The overall pass percentage of students' and girls' in particular decreased over the years. However, general students' do well in class X as compared to other categories of students.

Dundar, H. and Murat. A (2014) conducted a study on *"Implementing tablet PCs in schools: students' attitudes and opinions"*. The researcher studied the 206 number of students' expectations, attitudes, and opinions in four high schools under FATIH project in Turkey. This study focused major question on difference between use of tablet PC by male and female students, and its effect on their learning attitudes. Here, for collection of data both qualitative and quantitative tools were used. Further, for evaluating student attitudes the researcher used computer attitude measure for young students' tool which was developed by Teo and Noyes in the year of 2008 along with an interview tool was used in this study. There was a positive attitude of students' use of tablet PCs which is found by the researcher. It also found that the attitudes of students (male and female) towards using tablet PCs did not differ significantly.

Sahu (2013) discussed on *"The collaboration between government schools and private organizations that aids towards maximum enrolment of tribal students in schools, building trust among tribals about a strong future for their children"*. The paper highlighted that the inequalities which rises from the society could not be stopped. It revealed that quality education is the only way that would bring empowerment among the tribal people, and to make their future secure and better. The study found that there is a need to strengthen infrastructure, and all other necessary arrangements in government schools through the help of private sector in tribal concentrated of Sundargarh and Keonjhar districts. Moreover, introduction of new innovative approaches and appointing tribal teachers will make school education accessible for more tribal students. Further, the important suggestions given by this study for making easy accessible for the tribal students such as: for improve their learning abilities there is a need to introduce syllabus texts in tribal language. The tribal people are also unaware on educational facilities for their children, and it tends to be a daring task to have a powerful impact of education among tribal children, which comprises the participation of all types of stakeholders. Further, the study suggested that at least through a robust education at the primary and secondary school level will be helpful for tribal people to communicate and connect with the present society.

L. Kyriakides & B.P.M. Creemers (2011) entitled a study on *“Can schools achieve both quality and equity? Investigation the two dimensions of educational effectiveness”*. The researchers used a follow-up study method followed by the dynamic model. There were selected 50 primary schools for data collection two times with having specific time intervals where data collected from two aspects such as effectiveness of teaching mathematics and the Greek language. For both subjects, from each sixth grade class students of the school sample have chosen. Further, the researcher used extended logistic model of Rasch which is developed by Andrich in the year of 1988, a multi level analysis process including the chi-square test for analysing the data from both subjects. The study found that no school was located both (equity and quality) among the most effective schools. However, only a few schools managed to be among the most efficient in terms of quality and equity in each subject.

Pradhan and Pattnaik (2006) accomplished a study on *“To explore the quality of education in 142 Ashram schools for tribal students in the Koraput district”*. The objective of the study was to look deeply in to the grass-root level conditions of these schools and it can be fruitful only after matching it on the availability of appropriate components such as the teaching-learning process, the school environments (social and physical), teaching staff, and practice activities for daily living. The study found that the tribal students are unable to build their strong learning base due to the problems faced by them. In the initial years of schooling, for most of the tribal students, Odia language is a problem to communicate with friends and teachers and this gap have gradually been decreased with the passage of time. The majority of the tribal students have been found poor in English subjects & demand for extra coaching for this subject and additionally in mathematics too. There are lacks of teaching learning materials, particularly un-availability of science and mathematics kits. Further, study also found that students’ faced difficulty in learning Hindi and Sanskrit & for that schools need teachers particularly specializing in both subjects.

2.3 Enrolment, Dropout, Retention and Literacy

A study conducted by **Behera and Krishnaiah (2021)** on *“Quality issues in school education: perspectives of National Education Policy 2020 towards achieving SDGs”*. The researchers found that there are so many problems exist in schools majorly on civil work, progress is slow, having slow GEP, high dropout and low transitions rate. Researcher cited some major issues highlighted by NEP 2020 such as the number of out-of school children aged 6-17 years is more than 3.22 Crores and major issues behind dropouts were lack of

trained teachers, school remains deficient on infrastructure support, lack of process of upgradation of schools, slow process of building additional schools, lack of hostel facilities, and especially for girls' in remote areas.

Biswas, G., and Krishnan, D. (2017) conducted a study on the *"Dropout of tribal students at the secondary level in Hooghly district, West Bengal."* The researcher followed qualitative survey method with the objective to inquire the issues related to dropout among tribal students at the secondary level where eight secondary schools from two blocks of the Hooghly district were randomly selected. The tools used for this study such as school records, questionnaires, and interview schedules. The study revealed that the overall dropout rate increased among tribal students at the secondary school level from the year 2014-16. Further, study also found that the dropout rate of tribal boys' higher than that of girls students. Furthermore, data found from the interview indicated that major factors related with dropout were low economic conditions of parents, unsuitable learning environment at his own residence, parents' mind-set towards schooling, lack of interest of students towards schooling.

A study conducted by **Ramdas Rupavath (2016)** on *"Tribal education: a perspective from below."* It examined initiatives for more extensive participation in education by tribal communities in India. Secondly, it argued that the present policy does not effectively facilitate more significant equity and goes against the avowed principle of ensuring greater equity. This study followed with Case study method. It purposively focused on a tribal population of 333 people in the Nalgonda districts of Telangana state. The researcher found that the top-down state-led education policy fails India's tribal children as they do not experience the envisioned education progress. It was due to the lack of active and efficient participation of local communities in education planning and provision and the lack of valuing tribal community's way of life and their lived experiences. The researcher also found that parents' attitudes towards education, domestic work, contributing to the family's income by taking part in labour work and caring for siblings were the reasons for dropping out.

Behera, A.K. (2015) conducted a study on *"Primary education among tribal people of Mayurbhanj district of Odisha: an evaluative study."* The researcher focused on government efforts towards Universalization of primary education in tribal districts of Mayurbhanj. The major results of this study show that tribal students face problems related to the medium of instruction. They understand the Odia language and are unable to understand teaching. Further, study also found lack of parental support at home and it's happened due to their illiteracy and unawareness about the importance of education.

A study accomplished by **Dash Manasi (2015)** on *"The state of secondary education in Odisha"*. The researcher collected both quantitative and qualitative secondary data for understanding the secondary education through different indicators such as enrolment, teachers, and infrastructure and learning outcomes. Study indicated that the Growth Enrolment Ratio and Net Enrolment Ratio are below 100 in the state as a whole. The school dropout rates have declined, but remained high in areas dominated by backward tribes. Study also found that several teachers engaged with a written agreement although they are not well qualified for that teaching post. Further, study also explained that many secondary schools don't have proper safe drinking water facilities, healthy washrooms for all, playground, and proper electricity supply. As per the data analyzed by the researcher the conditions of the secondary school education in Odisha does not meet the indicators of quality education. Therefore, researcher stated that there is a need to be universalizing quality secondary education for all, and must working on accessibility, affordability and technology based quality education at school level.

A study conducted by **Mishra (2015)** on *"Kasturba Gandhi Balika Vidyalaya (KGVV) as a model for enrolment of disadvantaged girls."* In this study researcher focuses on different objectives such as socio-economic background of students and causes for not enrolling and dropout at school level. Secondly, study on the perceptions of stakeholder (teachers, students and public) on KGVV, and understanding the facilities as provided by the school. Thirdly, study on the enlisted school provisions for life skill education and co-curricular activities for students. The study adopted the survey method along with 25 parents and all other stakeholders including 10 students from each class. The researcher used interviews, individual interaction, observation, and focus group discussion as tools for data collection. The study revealed that most students have poor economic backgrounds. Mostly, study found that KGVV provided provision based curriculum including individual hygiene management to every students along with vocational work including dance. Further, study also found that teachers used innovative teaching methods and students' also excited during the use of computer during classroom transactions along with students getting individual attention due to good teacher-pupil ratio in school. Furthermore, study found that teachers spend enough time to understand the students' problem, and focused on completing syllabus on time and extra coaching for securing good results in exam. The parents support by sending their daughters for next class will be positively attain if same facilities available for all. The study also found some drawbacks such as there was no regulation for organising parent teacher association or the required meetings along with parents who are unaware about the KGVV

schools and its related facilities due to lack of involvement. Further, there were lack of proper plan for the utilization of teaching learning materials as well as aids and study materials in school.

Mishra Lokanath (2015) accomplished a study on *"Enrolment of tribal girls in secondary schools of Odisha."* The researcher used the case study method and collected data through the ethnography approach and highlighted the reasons behind low enrolment of tribal girls in Kanakadahard block of the Dhenkanal districts of Odisha. The study found that the concerned districts have low enrolment ratio of girl students as compared to general category students. The study also found the reason behind low enrolment of girl students on an above average 65% of parents are not interested in studies and a few of the parents responded that the girls are required for household work including taking care of siblings and too much cost for availing education. Further, the study also found that there are many other reasons for low enrolment and it was revealed through FGDs such as: work related to agriculture, collection of "tola" and "Mahuli" flower, leafy cups and plates and selling them further in the nearest market. Moreover, observance or rituals or festivals, taken care of parents during illness, unable to do the homework as assigned by the class teachers, unable to maintain clean school uniform and disturbances with peers were the reason behind low enrolment at school level.

Rout, Naresh. (2015) conducted a study on *"A contemporary study: the problems and issues of education of tribal children in Kandhamal districts of Odisha"*. The researcher confined the objectives within the following line such as awareness among tribal children towards benefits of education as well as participation helping in developing the academic standard of the villages of Kandhamal districts of Odisha. The second objective is to ensure that all children attending school in the district's village schools are fully enrolled and fully attended. The third objective is to seek opportunities for the qualified children to use their prospective to complete the standard of schooling at primary level. The fourth objective is to highlight the problems of tribal children due to their academic delay and dropping out the primary school education; to uncover the level of social inequality, religious inequality, caste, and class conflict in the district's elementary education. This study followed both qualitative and quantitative research designs using the questionnaire tool. The researcher found the reason behind barriers low educational progress due to lack of accessing primary education and the possible factors related to social, economical, and cultural transits. The researcher found that community violence has some problems for the growth and development of education in Kandhamal. The study found that some specific reasons could also be responsible for the dropout problem of tribal students in the selected districts, such as lack of opportunity for

communication with individual teachers; teachers in interior pockets neglecting regular duties; irregular supply of mid-day meals; the school environment does not attract the tribal students; some schools do not have their buildings and tribal, regional cultural materials etc.

Devi Kiran & Prashanti (2014) conducted a study on *“Girl child-friendly (NPEGEL) schools and their impact on girl child enrolment and dropout.”* The study's objectives were: (i) to examine the provision of a girl-friendly environment in selected schools and (ii) to study the enrolment, retention, and dropout rates of girl students in NPEGEL & Non-NPEGEL Schools. The descriptive survey method followed by a simple random technique to pick 60 schools—the collected data through an interview schedule and a checklist. The study found that school facilities in NPEGEL schools were better than that of other schools in terms of school buildings, furniture, water and sanitation. However, cleanliness of the toilets and the number of toilets is less than the requirement. The study also found that dropout rates in non-NPEGEL schools are higher than in NPEGEL schools. Results show that the NPEGEL program has helped retain students and reduce dropout rates.

Sahu K.K. (2014) conducted a study on *“Myths and realities of tribal education: a primary study in Similipal area of Odisha.”* The objective of the study highlighted on the status of literacy rate among tribals of Mayurbhanj district. The researcher conducted a survey method to understand the objective of the study. The study focused more on primary data from 13 tribal villages of Similipal forest areas of the concerned district. As per the researcher, this district is one of the fully Scheduled Tribe districts of Odisha and residence of many primitive tribes. The study found that overall literacy of female is less i.e., 5% and status of education in those areas came up with only 12.62%. Further, study found that male literacy is more i.e., 80% as compare to female literacy i.e., 20% from the selected villages, which indicated that the literacy rate was much below the national literacy average. Furthermore, researcher revealed the reason behind low literacy among those tribal villages such as poor economic conditions, parents' attitudes towards education, teacher related problems and dysfunction of village education committee.

A study conducted by **Chaudhari, Awasthi & Amin (2012)** on *“The impact of KGBVs on girls' education and retention.”* The study has four major objectives such as to study the enrolment, retention and dropout rate of girls. Secondly, to study on use of material recourses in school. Thirdly, to understand the classroom teaching-learning process along with achievement of girls' students, and the fourth objectives meant to study the perception of stakeholders on impact of KGVB on retention. Information plan, observation plan, focus

group discussion, and questionnaire used for data collection. The study found that hardware resource provision is not an issue in most cases; However, suitability, usability and intended use were not determined in several cases. The number of girls in the KGBV has increased. As per the researcher KGBV got funding facilities, but the quality education remained questionable. The study found that there are problems related to low performance of girls' students in class, irregularities in receiving grants from government, issues related to cleanliness and hygiene, unable to provide daily necessities, and insufficient classrooms and space. Further, study also found that stakeholders have positive perception towards girls' education and agreed KGBV scheme has a pivotal role towards increased awareness among people on importance of girls' education for present society.

Das (2009) conducted a study on "*Status of education of scheduled tribes in KBK districts of Odisha*". The researcher focused on two aspects i.e., quantitative and qualitative to debate the status of primary education with special references to the KBK districts of Odisha. The KBK districts represent 8 districts, with over tierce their populace being STs along with backwardness identity in terms of literacy and accessing basic facilities. Further, researcher found that due to expansion of primary education there was positive change of female literacy rate in these KBK districts of Odisha. However, these districts remained with lots of problems towards availing and accessing basic facilities as compared to other districts of Odisha.

Debi and Mahesh's (2009) study examines "*The educational status of tribals in Odisha*". The researcher analysed and explained the findings on the basis of three basic lines such as population of tribals in Odisha, literacy rate and accessing education, and gender parity along with the status of tribal teachers in tribal areas of Odisha. For understanding these components the researcher analysed the results through using gender parity index, coefficient of equality and sophers' disparity index. The study found that there are two types of districts visualised such as more than fifty percent tribal population which is called Scheduled Districts and non-scheduled districts which was less than fifty percent of tribal population. The study also found that the overall literacy of tribal population is lower than non-scheduled districts except Sundargarh districts and the ever lowest literacy rate district was Malkangiri i.e., 7.5%. Further, study revealed that 27% of scheduled tribe population was unable access primary education within one kilometre along with lowest gender parity index in scheduled districts as highest in non scheduled districts. Furthermore, study found that only 8.4% tribal teachers were appointed in the state and 16% in tribal concentrated areas, which is below the fixed norms.

2.4 Socio-economic Status and Girls' Education in Health Issues in Tribal Areas

Gajpal, L.S. (2017) conducted a study on *"Naxal movement and health status of tribes in base camp: a case study of Dantewada district of Chhattisgarh state of India"*. This study was based the Naxal movement in Chhattisgarh state and its impact on tribe life. The study targeted on the comparative study of the social life style of the tribal folks before arrival within the base camps and changed once the going in the base camps. Researcher found the modification in tribal culture because of Naxal incidents and also the impact of the health programs in the region after Naxal activity. The study results show that, in some contexts, Naxal incidents are useful to tribal people because, in base camps, they need ample health facilities, particularly in the context of women and children' health facilities that the govt. proves.

Maharana and Nayak (2017) accomplished a study on *"Educational status among the particularly vulnerable tribal groups of Odisha"*. The study majorly focused on two broad objectives such as to understand the educational status of Jashipur block of Mayurbhanj districts of Odisha, and to study the perception of different stakeholders on reason behind poor education for children. A mixed-method design was used for the study. Purposive sampling was used to select the block and randomly select 40 families for data collection. The researcher used interview, observation schedule, and group discussion approach to collect further data. The study found that the educational status of Jashipur block is unsatisfactory and it was because of poor economical status of parents and residence is far away from the school. Further, study revealed the reason behind low education status due to lack of proper attention from parents' side, engaged in household work, psychological, and socio-cultural problems such as early marriages, shyness etc,. However, educational institution also played a major role for poor educational status in these areas such as lack of proper infrastructure facilities including classrooms, teaching-learning materials including blackboard and related components, physical education including sports activities, and residential facilities for all.

Parida (2016) carried out a study on *"Educational status among the Santal of Odisha: a case study of Mayurbhanj district"*. The study based on three objectives such as (i) to investigate the educational status among the Santal of the study area, (ii) to confirm equality and quality education for the tribal children for their livelihood, and (iii) to look at the performance levels of various types of schools among the Santal. The information was accumulated through the assistance of case study, observation, targeted cluster Discussion, and interview

for different stakeholders. The study found that the monetary drawback creates a significant hazard to educating the Santal people and several students discontinue school at upper primary and high school due to financial difficulties. Though the state and central government may offered enough monetary help within the variety of scholarships, free boarding, lodging facilities, provision of textbooks and mid-day meals in primary schools, and stipends and hostel facilities, the Santal folks haven't been earning a lot of to teach themselves. Their cultural encompassing and economic condition produce hindrances in the method of their education. Some students face issues understanding the Odia language and are unable to understand the teaching during classroom transaction.

Puhan (2016) accomplished a study on the *“Development of education among tribal women in the age of open education and e-learning: a critical analysis of the Keonjhar district of Odisha”*. The study mainly worked on three major objectives such as to analyze the prevailing condition of women's in tribal areas of Keonjhar district, secondly, to study the developmental programmes launched by government for women's in tribal areas of Keonjhar district, and thirdly, to examine the effectiveness of those developmental programmes. The descriptive survey design was employed in the study and used secondary sources for accumulating the major data. The researcher found that parents who have well in financial condition have positive attitudes for girls' education and its reverse with parents having low economic status. Further, study also found that there are many developmental programmes already implanted by government such as free and compulsory primary education for all and it helped to bridge the literacy gap between general literacy and female literacy in tribal areas. Furthermore, study also found the issues related to accessing schooling such as lack of proper basic facilities, school buildings, classrooms, drinking water facilities, electricity, urinals, laboratories, teaching-learning materials, physical education, teachers, counsellors and non-teaching staff.

Soren (2016) carried out a study with three basic objectives such as to study the reasons behind dropout among tribal students, secondly, to understand the policies and programmes for improving education for tribals, and thirdly, to understand the parents' perception towards their children education in tribal areas of Mayurbhanj districts of Odisha. The study followed case study approach to carry out this study. The data collected was through interviews with teachers and parents. The study found that girls are among more dropout as compare to that of boys' in tribal areas. Further, study found some reasons behind dropout such as socio-economic condition of family, engaged in domestic activities, lack of parental guidance for

homework, appointing special teacher educator for CWSN, language problem, problem with learning English, absenteeism of teachers in regular basis, and distance of school from home.

Suthar, Chouhan, & Meena (2016) carried out a study on *“The low literacy rate among the female of rural areas: a case study of the Udaipur district”*. The study has few objectives such as to study the status of female literacy with the help of 2011 census, and to observe the enrolment status of girls at school level. The third objective related to find out the reason of low literacy rate in rural areas of Udaipur with reference to girls’. A survey design was used for the study. The study focused on both primary and secondary data. In primary data researcher collected data from forty four government schools randomly by using questionnaire tool. Further, researcher found that Udaipur had low in female literacy, however, there was progress in literacy rate, when it was compared with year of 1991 to 2001-11 census. The study found that the enrolment rate of girls is increased at primary school level positively, however decreased at the secondary school level in the district of Udaipur. Furthermore, study also discover the causes behind the dropout of girl students at secondary level such as child marriage, child labours, lack of hostel and communication facilities from home to school in the tribal areas of Udaipur.

Behera, J., and Samal, R.M. (2015) conducted a study on *“Category (Tribe and Non-Tribe) as an element in educational aspiration of secondary school students: an investigation”*. They focused on following objectives such as to understand, compare and suggest the educational aspiration for secondary schools with reference to tribal and non-tribal students along with their localities and gender. The descriptive and analytical method, including descriptive statistics and a t-test, has been used in this study along with 680 numbers of students selected as a sample from which 395 were non-tribal and 285 were students from tribal. The study used *“Mazumder Academic Aspiration Inventory (MEAI)”* as a tool for data collection. The researcher found that tribal student in case of localities and gender was differed significantly from non-tribal students along with tribal students have proper level of educational aspiration. As per the study non-tribal students focused more on academic aspects and felt more superiority than tribal students, and it’s due to less opportunities access with restricted learning environment by the tribal students.

Jana, N.C., & Ghosh, P.K. (2015) conducted a study on *“Socio-economic conditions and quality of life in the tribal areas with reference to Mayurbhanj District of Odisha”*. The researcher focused on a few objectives such as to understand disparities and variations in socio-economic status and remedial measures for primitive tribes of Mayurbhanj districts of

Odisha for their mission towards mainstream society. Further, researcher found that the status of socio-economic, caste and gender disparities of primitive tribes remain major challenges particularly in backward areas, however standard of life in terms of good health has positively improved.

A study accomplished by **Mishra (2015)** on “*The enrolment of tribal girls in secondary schools of Odisha*”. The study has two major objectives such as to understand the enrolment and dropout status of girls in tribal areas of Raibol high school and for that researcher used case study method. The data collection was conducted through Interview schedule and focus group discussion, where all stakeholders participated positively. Further, study found that there are plenty of reasons identified for dropout such as girls’ students are not interested for studies and early marriage, seasonal work, caring for siblings, poor economic condition of parents, engaged with household activities, and school location far away from students’ habitation. Furthermore, study also explained that the parents’ awareness is the major explicit for educating girls’ in tribal areas, and it will become effective when government creating employment opportunities for educated tribal girls in their own locality.

Nayak (2014) conducted a study on “*Parents' attitudes in the direction of girls' education amongst Kandha tribes in Odisha, India*”. The study was objectives such as to understand the educational position of tribal girls and to investigate the gender discrimination in the field of schooling. Third one is to assess their view about the importance of schooling tribal girls, and the fourth one based on observing the parental attitudes in the direction of girls' education. The researcher used descriptive survey design along with simple random sampling procedure adopted to select 50 parents. The interview guide was used for data collection. The study results revealed that 50% of parents regularly send their children to school. It is heeded that most of parents showed interest in sending their girls child outside for higher studies. Further, study also found that majority (84%) of the parents attend the school where their daughters study, and responded that they were aware about the various government programmes that were implemented for girl child education.

Sofi (2014) conducted a study on the “*Educational status of the tribals of Jammu & Kashmir: a case of Gujjars and Bakarwals*”. To carried out an empirical sociological investigation of the current status of education among the Gujjar and Bakarwal tribals. The researcher used descriptive survey method along with selected 124 households from five villages belonging to three different tehsils through stratified sampling techniques and used primary sources such as interview for data collection. The study has revealed that the literacy

rate among the tribe is too low. Further, the researcher found that there are major causes for low literacy such as financial issues of parents, lack of school uniforms, teaching-learning materials, and residential facilities for students. The study also found issues related to shortages of trained teachers, migratory lifestyle, and dependence on the livestock thrift.

Garnaik and Barik (2012) conducted a study on the *“Role of ashram school in tribal education: a study of a block in Jharsuguda district.”* The study objectives were to investigate the students’ socio-economic background, evaluate the facilities, students’ performance and educational aspirations of Ashram school. The researcher collected data from different stakeholders including 100 students from various schools. The study found that it helped to enroll tribal children in Ashram school without any economic pressure. The study also found that majority of school children parents were from labourers, farmers, and employees in coal mines or government employees. Further, researcher also found that students’ enrolment was low in lower classes as compared to that of higher classes and the results of the high school board examination were not satisfactory.

A study accomplished by **Puhan and Malla (2012)** that primarily aims to investigate the attitude of tribal parents toward their daughters' education. The study majorly focused on tribal parents from the Keonjhar district of Odisha. The study followed with descriptive survey method and used questionnaire, interview and focus group discussion as tools for data collection. The researcher selected 300 tribal parents and 50 teachers as study sample. The researcher found that majority (70%) of tribal parents realized that the condition of backwardness due to lack of accessing quality education and also agreed education helped women give adequate support to their children and strengthening economic condition of the family.

2.5 Critical Discussion

Above mentioned studies have focussed on objectives such as initiatives and learning achievements (Atasi Mohanty, 2003; Das and Anand, 2017; Hansdah, 2016; Hansdah & Puhan, 2016; Imam, Ali, Singh G.P and Tiwari Y.N., 2016; Sanjeev, Sandeep, Chauhan and Tewari, 2017; Shrama, 2017; Sahu, Janmejy, 2013; Wajeha Thabit Al-Ani & Omer Hashim Ismail, 2015). The second theme has based on quality schooling and overall school performance (Dundar, H., and Murat. A, 2014; Kim, H.J and Jang, H.Y., 2015; L. Kyriakides & B.P.M. Creemers, 2011; Mohalik and Sethy, 2015; Patra, S.K., 2016; Pruet. P., et al., 2016; Pradhan and Pattnaik, 2006; Sahu, 2013). The third reviewed theme based on Enrolment, Dropout, Retention, and Literacy (Behera and Krishnaiah, 2021; Biswas, G., and

Krishnan, D., 2017; Behera, A.K. 2015; Chaudhari, Awasthi & Amin, 2012; Dash Manasi, 2015; Devi Kiran & Prashanti, 2014; Das, 2009; Debi and Mahesh's, 2009; Mishra, 2015; Mishra Lokanath, 2015; Ramdas Rupavath, 2016; Rout, Naresh., 2015; Sahu K.K., 2014). The fourth reviewed theme focused on Socio-economic status and Girls' Education as well as Health Issues in Tribal areas (Behera, J., and Samal, R.M., 2015; Gajpal, L.S., 2017; Garnaik and Barik, 2012; Jana, N.C., & Ghosh, P.K., 2015; Maharana and Nayak, 2017; Mishra, 2015; Nayak, 2014; Parida, 2016; Puhan, 2016; Puhan and Malla, 2012; Soren, 2016; Suthar, Chouhan, & Meena, 2016; Sahu, 2014; Sofi, 2014; Sailabala Debi and Mahesh, E., 2008) on quality school education for tribals in India.

In this review, there are most of the studies fall under the Quantitative approach, including survey design using questionnaire tools and using percentage analysis (Atasi Mohanty, 2003; Behera, J., and Samal, R.M., 2015; Behera, A.K. 2015; Dash, Manasi, 2015; Debi and Mahesh, 2009; Garnaik and Barik, 2012; Imam, Ali, Singh G.P and Tiwari Y.N., 2016; Jana, N.C., & Ghosh, P.K., 2015; Patra, S.K., 2016; Pradhan and Pattnaik, 2006; Puhan & Malla, 2012; Sandeep, Chauhan and Tewari, 2017; and Sanjeev, Sahu K.K., 2014) and few numbers of study only focusing on Qualitative design (Biswas, G., and Krishnan, D., 2017; Das, 2009; Gajpal, L.S., 2017; Mishra Lokanath, 2015; Rout, Naresh., 2015; Sahu, Janmejy., 2013; Sahu, 2013; Sailabala Debi and Mahesh, E., 2008). The study of Maharana and Nayak, 2017 and Wajeha Thabit Al-Ani & Omer Hashim Ismail, 2015 focused on mixed-method design. However, no studies focused on the **triangulation method** in their research.

Initiatives and Learning achievement: KGVBs initiatives are always a major attraction among parents in rural and tribal areas due to its unique initiatives on free secondary education, including well infrastructure facilities and residential facilities. Meanwhile, Post-Matric scholarships for students made secondary school education more attractive (Das and Anand, 2017; Sanjeev, Sandeep, Chauhan, and Tewari, 2017). The residential schools have major issues related to inadequate buildings, infrastructures, food and residential facilities, the physical location of the village, lack of teachers, negative attitude of the parents, and security provisions. Hence it is the main reason for Students' dropout and the decrease in enrolment day by day in rural areas (Das and Anand, 2017; Hansdah, (2016); Maharana and Nayak, 2017; Puhan, 2016; Sahu, Janmejy, 2013; and Sharma, 2017). Students were satisfied with the overall timetable and other academic activities, such as life skills education which empowered tribal girls at the school level (Hansdah & Puhan, 2016). Parents and teachers also lack awareness about KGVBs schemes and other initiatives (Das and Anand, 2017; Sharma, 2017). Private schools performed well compared to government schools, and

similarly, the performance of non-tribal students is better than their tribal students (Imam, Ali, Singh G.P and Tiwari Y.N., 2016; and Mohanty, 2003). It indicated that implementing technology, professional development of teachers, introducing values and ethics, scientific research methods, and other initiatives improve a school's performance (Wajeha Thabit Al-Ani & Omer Hashim Ismail, 2015).

Quality Schooling: The researchers found that remedial teaching of EMRSs is good in quality and has a good impact on the understandings of tribal students'. However, students face a few problems following the teachers' language (Patra, S.K., 2016; Parida, 2016; Pradhan and Pattnaik, 2006). The infrastructure facilities of the school campus are sufficient, including better hygienic facilities for the students (Mohalik and Sethy, 2015; Patra, S.K. 2016; Sahu, 2013). However, in some schools and hostels, sufficient drinking water is unavailable and lacks TLMs, particularly in science and mathematics equipment (Patra, S.K., 2016; Pradhan and Pattnaik, 2006). The researcher found that teachers have a positive attitude toward tablet PCs and technology practices, learning through collaborative approaches; however, anxiety affected students' academic achievements. It also significantly influenced students' future expectations and self-efficacy for learning. (Dundar, H., and Murat. A, 2014; Kim, H.J and Jang, H.Y., 2015; and Pruet. P., et al., 2016). It is a difficult task to educate properly and effectively the tribal children, including all the stakeholders such as the community, different organizations, and teachers (Sahu (2013)). It was found that no school had equality and quality practices, including the best ones (L. Kyriakides & B.P.M. Creemers (2011)). Further, Mohalik and Sethy (2015) found that most secondary school classes have a high pupil-teacher ratio. Most secondary schools don't have hostel facilities, staff quarters, ramp and other facilities for CWSN students, computer labs, internet facilities, and e-Pathshala in rural areas. Further, secondary schools don't have a regular Head Master and running by half of the subject teachers; however, schools have sufficient non-teaching staff such as clerks and peons. Researchers found that secondary schools have proper governance and management such as having SMDC and its related norms, supervised by higher authorities, PTA meetings, Baal Sansad, academic calendar, school improvement plan, biometric attendance, and except grievance redressal mechanism. Class IX and X's overall enrolment and category-wise decreased over the years. The study also revealed related to classroom observation that the teachers having more qualifications perform well in most of the aspects of teaching, and majorly used aspects of teaching by teachers were often and very often. The overall pass percentage of students' and girls' in particular decreased over the years. However, general students do better in class X than other students.

Enrolment, Dropout, Retention, and Literacy: The researchers found that except Sundargarh district, all other scheduled tribes in the scheduled districts have a lower literacy rate than the non-tribal districts. About 27% of the residents with a mostly scheduled tribe population did not have access to a primary school within a one-kilometer distance. There was only 8.4 percent of tribal teachers in the state and only 16 percent in particular tribal concentrated areas, which do not fulfil the prescribed government norms (Debi and Mahesh, 2009; Das, 2009; Puan, 2016; Sahu K.K., 2014; Sahu, 2014; and Sofi, 2014). The reason behind the low enrolment of tribal girls in schools such as disinterest in studies, due to household work, care of siblings, the cost of education, involvement in the collection of "Tola and Mahula," and face problems relating to the medium of instruction due to use of Odia language and lack of support from parents in their study at home (Behera, A.K. 2015; Mishra Lokanath, 2015; Ramdas Rupavath, 2016). The dropout rate increased from year to year at the secondary level, particularly boys are dropout more than girls in tribal areas. The reason behind dropout is low economic conditions, lack of a supportive learning environment at home, attitudes of parents and not aware about the education as well as schooling, lack of trained teachers, the school remains deficient in infrastructure support, lack of Upgradation of schools, slow process of building additional schools, lack of hostel facilities, and especially for girls in remote areas and lack of aspiration. The top-down state-led education policy fails India's tribal children as they do not experience the envisioned education progress. It was due to the lack of active and efficient participation of local communities in education planning and provision and the lack of valuing tribal community's way of life and their lived experiences. (Behera and Krishnaiah, 2021; Biswas, G., and Krishnan, D., 2017; Mishra, 2015; and Ramdas Rupavath, 2016). Most of the students belong to a poor economic background. However, students enjoyed operating the computer and the innovative teaching methods. It is easy for the teachers to give individual attention to the students as the teacher-pupil ratio is comfortable. It observed irregularity in organizing Parent Teachers Association meetings per the RMSA norms (Mishra, 2015). There are a few reasons that may also be responsible for the dropout problem of tribal students; these are lack of communication facilities, schools having single teachers, teachers in interior pockets neglecting duties, irregular supply of mid-day meals, the school environment does not attract the tribal students, some schools are not having their buildings and absence of tribal cultural and regional materials (Rout, Naresh., 2015). School facilities in terms of the school building, furniture, water facilities, and other facilities were good in NPEGEL schools than in the other schools. However, it found that the toilets' cleanliness and the number of toilets is less than the requirement. The NPEGEL program helped retain the students and decreased the dropouts (Devi, Kiran, & Prashanti,

2014). Though sufficient material resources are available, in most cases, adequacy, functional, and appropriate utilization have not been observed. The number of girls has increased in the KGBVs. However, cleanliness and hygiene are major issues, and lack of sufficient rooms for teaching, storeroom, and staff room (Chaudhari, Awasthi & Amin, 2012). Although teachers do not have the required qualifications, the government engaged them on a contractual basis. Many schools don't have safe and drinkable water, sanitized washrooms for girls and boys, and electricity supply. The secondary school scenario is unsatisfactory even though students do not have a playground to relish their tender childhood (Dash, Manasi, 2015).

Socio-economic status and Girls' Education as well Health Issues in Tribal Areas: Poverty was the main reason for their educational backwardness. It discovered that over 60 percent of children of the Ashram Schools whose parents are laborers, 20% depend on agriculture and 10% work in the coal mines or as Government servants. Undoubtedly, Ashram School encourages the deprived tribal children as it's a tough task for their parents to afford to send their children to school. Educating their children by sending them to school may disassemble their traditional pattern of division of labor which could adversely affect even their minimal budgetary scope. The study even found that less number of tribal children enrolled in lower classes and more enrolment in higher classes. Fewer students have somehow got thorough high school examinations (Garnaik and Barik, 2012; Jana, N.C., & Ghosh, P.K., 2015). The habitation is far from the school, and their economic condition is also very poor. Like the environment, socio-cultural and psychological problems also tend to vary from place to place, showcasing traits like, i.e. shyness, reservedness, nodding towards early marriage, and gender discrimination which hampers in spreading of education on a massive scale among the places like the Hill Kharia and other tribal areas (Maharana and Nayak, 2017; Parida, 2016; Puhan, 2016). Due to financial problems faced by schools, there are so many issues in school education, such as lack of basic facilities such as infrastructure, classrooms, safe and drinkable water, electricity supply, un-sanitized urinals, lavatories, stationary for students, and teachers, non-availability teaching-learning materials, physical education, trained teachers, and counselors, and non-teaching staff (Mohalik and Sethy, 2015; Puhan, 2016). The dropout rate among girls is less than that of boys in tribal areas. Domestic work, lack of parental guidance and awareness in studies, socio-economic condition of the family, language problems, problems of learning English, regular teacher absenteeism, and the location of schools from the village are the causes of school dropout. The study also found that Special education and other developmental programs have not touched the goal of improving

children's education (Sofi, 2014; and Soren, 2016). There is no problem with girls' enrolment in primary school in the district, but they drop out at the secondary level. The main cause behind the dropout rate of girls is lack of interest in studies, the care of siblings, the family's financial weakness, and household work. However, distance from school, transportation and hostel facility is not well, and early marriage and labor factors also affect school dropouts (Mishra, 2015; Sahu, 2014; Suthar, Chouhan, & Meena, 2016). It also marked that fifty percent of the parents send their girl child for schooling regularly, and most of the parents showed interest in sending their girls' child outside for higher study (Nayak, 2014). In some contexts, the Naxal incidents benefit tribal people because, in the base camp, they have sufficient health facilities, especially in the context of women and children's health facilities which the govt proves. Another study found that after more than a decade, the Act of PESA in 1996 did not appear to the tribals to understand their basic rights, particularly in the education and health sector (Gajpal, L.S., 2017; and Sailabala Debi and Mahesh, E., 2008). Regarding educational aspirations, it found that in cases of Gender (Boys and Girls) and localities (Rural and Urban), tribal children differed significantly from their non-tribals counterparts. It was also revealed that non-tribal students showed a proper level of educational aspiration than tribal students. It might have happened due to less opportunity and a restricted environment. The study also revealed that the majority (70%) of the tribal parents realized that lack of quality education is the reason for which they counted as a backward society session. Almost half of the respondents opined that through the help of education, tribal women could take care of their children and contribute to the family's economic growth (Behera, J., and Samal, R.M., 2015; and Puhana & Malla, 2012).

CHAPTER III

CHAPTER III

METHODOLOGY

3.0 Introduction

This chapter deals with the methodology, which refers to the methods or procedures used for the study. It consists of various steps of the plan for solving the research problems. The methodology includes the method used for drawing out the sample from the population, tools used for data collection, and procedure for collecting and analyzing data. The selection of research methods is the most important task in the research process. In this process, the researcher used different tools and techniques to determine the validity and reliability of the data used in the research study. In this chapter, the researcher has compiled all the tables and graphics. Therefore we can state that the success of any research work depends upon the right study methods. So, during this study, the utmost care has been taken in adopting an appropriate method to urge into reality.

3.1 Design of the Study

3.1.1 Method

The objective of the study is to inquire about or assess the quality of education at the secondary school level in tribal districts of Odisha with certain parameters. To achieve the study's core objectives, the researcher used the survey method to carry out the research. Further to collect the in-depth data from secondary schools, the researcher has chosen one school from each district through the case study method. The procedure of selecting schools as a case was before fixing with the last three years 10th annual exam results declared by the Board of Secondary Education, Odisha and top scored school selected as a case. The researcher intended to collect data through a case study to support the data derived from the survey method. By looking into the process, the researcher used the triangulation method, i.e., survey-cum-case study, to carry out the research.

3.1.2 Population and Sample of the Study

The population of the study consists of all thirteen (13) tribal districts secondary schools of Odisha run by the Odisha Government, particularly the Board of Secondary Education (BSE). The informants include all the stakeholders of such schools, such as beneficiary students, teachers, heads of schools, and parents.

The multistage sampling procedure technique is used for this study. The sample of the study, under the category of secondary schools, consists of Fifty (50) Secondary Schools run by the Odisha government situated in Five (5) Tribals Districts along with one (1) Block from each district of Odisha selected through simple random technique. Ten (10) teachers from five case selected schools and all the heads of these schools were included in the sample. 10 (Ten) students and 02 (Two) Parents from each secondary school (applicable only in the case study method) were selected purposively. The sampling frame has presented in the following diagram and table.

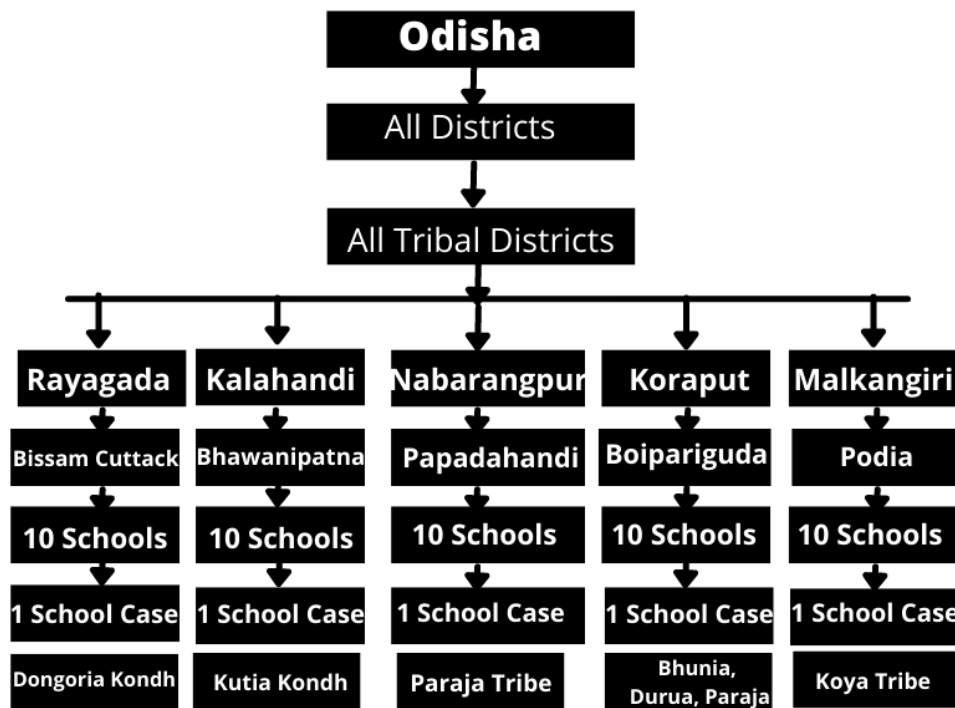


Diagram 3.1 Multistage Sampling Procedures

Table 3.1: Sampling Details

Categories	Population	Sample from Each	Total Sample	Sampling Method
Districts	Thirteen (13) Tribal Districts	-	05	Simple Random
Schools	All Secondary Schools of Five Tribal Districts of Odisha	10*5	50	Simple Random
Students	Students from all Five Case Study Secondary Schools	10*05	50*	Purposively
Teachers	Teachers' from all Five Case Study Secondary Schools	2*5	10*	Incidentally
Heads Master	50 Secondary Schools Head Master	01	50*	All Heads
Parents	Parents' from all Five Case Study Secondary Schools	2*5	10*	Incidentally
Schools for Case-study	All fifty secondary schools for final study	05	05	Purposively

3.1.2.1 The Cases

After analyzing the academic achievement of class X, among fifty (50) secondary schools from all five districts, the researcher selected five (5) secondary schools as cases from five districts (one secondary school from each district) based on their last three year overall highest average academic achievements in class X (**Appendix- B**). The details of selected cases and their highest academic achievements has explained below

Table 3.2: List of the Secondary Schools as selected for Case Study

Sl No.	Secondary Schools Name	District Name	Block Name	Average Performance from 2017-20
1	Govt. High School, Bissam Cuttack	Rayagada	Bissam Cuttack	67.29
2	Govt. High School, Talbelgaon	Kalahandi	Bhawanipatna	80.64
3	New Govt. H. School, Tumbrella	Nabarangpur	Papadahandi	81.09
4	Gopal High School, Ramagiri	Koraput	Boipariguda	50.34
5	Madhu Sudhan High School	Malkangiri	Podia	75.12

3.2 Tools and Techniques Used

Selecting suitable tools and techniques is very important for any successful research. For the collection of data, the researcher used various tools and techniques. These tools are required to seek information regarding phenomena. Keeping these things in view, the researcher used seven tools for collecting data from teachers, students, the Head of the school, and parents to know the overall status as well as understating the secondary schools and their quality education and practices in tribal districts of Odisha.

3.2.1 Development of Tools

Many studies have been conducted in the field of tribal education. In the status of secondary schools, the researcher felt that it was necessary to develop the research tool rather than using pre-standardized tools. The procedures adopted by the researcher are as follows:

Identification of the dimensions/aspects: The contents to be covered in these tools were selected from NCERT's latest Survey guidelines and Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Samagra Shiksha Abhiyan (SSA) quality dimensions. The tools questionnaire-cum-checklist, Classroom Observation Schedule for Teachers, Interview Schedule for Head Master, Teachers, and Parents covers various dimensions related to the objectives such as

Admission procedure, Curricular inputs or Curricular Components, Methods of transaction for curricular subjects, Students - teacher ratio, guidance and attention, Students strength, Approaches in organizing of curricular activities, Training Package for teachers, Use of ICT, TLM, Pedagogical activities or Practicum, Innovative Classroom Practices, School environment, Teacher-pupil relationship, School community relationship, Welfare services (medical, Career Counselling, Placement Cell, and Scholarship), Curricular activities (Games and Sports, Yoga, Fine Art, Music, Dance and Drama, Awareness Campaign, Exhibition, Extra-mural lectures, Seminars, Workshops, Study tours, etc.)

Items in Tool: After identification of the dimensions, the researcher prepared the items of the tools dimension-wise. In questionnaire-cum-checklist for Head Master: The researcher prepared Seventy-Six (76) items under Fourteen (14) major dimensions. In the Interview schedule for the Head, it was prepared eleven (11) items, in the Interview schedule for Parents sixteen (16) items, Interview scheduled for Teachers eleven (11) items. Classroom Observation for Teachers has four (04) major heads, including 54 items. In Focus Group Discussion for students with eight (08) focus points was prepared under 37 items.

Nature of items: In questionnaire-cum-checklist for the headmaster, the researcher prepared five points scale such as Excellent, Good, Management, Poor, and Very Poor as well as mixed with Yes and No options, and in Classroom Observation Schedule for teachers' also used five points scale such as Very Poor, Poor, Average, Above Average, and Excellent. In the Interview schedule for teachers and the Interview schedule for parents, the researcher prepared semi-structured open-ended questions. The researcher prepared semi-structured open-ended focus points in Focus Group Discussion for students.

Expert judgment/evaluation: The tools were developed by the researcher with the guidance of the supervisor and special consultations with eminent Professors from five institutions, such as the University of Hyderabad, Telangana, Utkal University, Vani Vihar, Odisha, Regional Institute of Education, Bhubaneswar and Bhopal, and Rama Devi Women's University, Bhubaneswar, Odisha.

Validation of the tools: After preparation, each instrument was analyzed and discussed with experts, removed some items per suggestions recommended by experts, and consulted with the supervisor. Then added new items and changed the language as per the need of the study.

Piloting/Try out the tools: The researcher has undertaken a pilot study before collecting the final data. It undertook to test the feasibility of the study. It ensured that the tools yielded the

required data. The researcher personally administered the tools. It showed that some items were unclear, and the tools contained more items.

Finalization of the tools: The researcher discussed it with the supervisor after conducting the pilot study in ten (10) secondary schools of Khurdha district of Odisha. The researcher corrected ambiguous items from the tools, and the number of items was reduced according to the need of the study. After all, the researcher prepared the following tools. The details of the tools are explained below.

3.2.1.1 Questionnaire-cum-Checklist is used to bring the information about the holistic perspectives secondary schools on different facilities available as per the guideline of Samagra Shiksha Abhiyan. (**Appendix C**)

Table- 3.3: Dimension wise items in Questionnaire-cum-checklist

Sl. No.	Dimensions	Number of Items
1	School Environment: Basic Profile, Facilities, Classroom Environment	37
2	Equity and Inclusion of Students	05
3	Curricular Inputs/Curricular Components	02
4	Method of Transaction for Curricular Subjects / Methods of Organising of Curricular Activities	03
5	Training Packages for Teachers	02
6	Use of Technology/TLM	01
7	Pedagogical Activities/Practicum	01
8	Innovative Classroom Practices	01
9	Teacher-Pupil Relationship	01
10	School Community Relationships	01
11	Extension Activities	03
12	Carrier Counselling and Placement Cell	02
13	School Governance and Management	15
14	Other Quality Issues	2
Total		76

3.2.1.2 Interview schedule for Head Masters, Teachers and Parents' of the Secondary Schools of Tribal Districts of Odisha. (**Appendix D, E, F**)

Table- 3.4: Dimension wise items in interview schedule for Head Masters, and Teachers’

Sl.	Focused Points
1	Academic Facilities
2	Teaching Learning Practices
3	Classroom Environment help for making a class more meaningful
4	Curricular Inputs and Curriculum Components
5	Methods of transaction and curricular activities followed by the teachers
6	Training facility for teachers
7	Teaching learning materials, including technological, aid used by teachers at the time of teaching
8	Innovative Classroom Practices
9	Pedagogical activity/practicum followed during teaching and learning
10	School and Community Relationship
11	The functioning of the school in terms of: Quality education; Care of the child; Safety and Security; Socialization; Teachers ‘contribution; Parents’ contribution; Contribution of Community Members; Contribution of Government

Table- 3.5: Dimension wise items in interview schedule for Parents

Sl	Focused Points
1	Pupil Teacher Ratio
2	Residential Facilities
3	School Community Participation
4	Carrier Counselling
5	Basic Facilities for Students
6	Basic Facilities for School
7	Feedback for improve the School
8	SMC/SMDC Meetings
9	PTA/MTA Meetings
10	Invitation by School Authority
11	Complaints/ Suggestions about School/Teachers
12	Outer Activities by Students
13	Training Programme & Teachers
14	Major Strengths of Schools/Teachers
15	Major Weakness of Schools/Teachers

3.2.1.3 Focus Group Discussion for Students (Appendix G)

Table- 3.6: Dimension wise focused points in FGD schedule

Sl. No	Dimensions	Focused Points
1	Core Teaching Skills e.g., Questioning, Use of Blackboard etc by Teachers	The interviewer will give some idea about the teaching skills to be discussed with regard to the activities; the teacher performs in the classroom while teaching such as writing on blackboard, asking questions etc.
2	Methods / Approaches of Teaching	Discussed on methods or approaches of teaching in the classroom such as lecture, participatory, Discussion etc.
3	Use of Technology/ TLM	Basic idea was given by the interviewer about learning materials or equipments used in the classroom for teaching learning process such as charts, maps, computer, TV etc.
4	Student Participation in the Classroom	Discussion on how the students participate in the classroom by asking questions, giving suggestions and other activities.
5	Teachers' Response and Treatment/ Pupil- Teacher Interaction	Idea will be given whether the students interact in the classroom without any fear, whether they are praised by the teachers for the same, scope for co curricular activities etc.
6	Interaction among Pupils	Discussed on whether the students have cordial relationship among themselves, whether they participate in academic competitions such as essay, debate, group discussion etc.
7	Student's Evaluation Process	Discussed on how the teachers evaluate the students' achievement in the classroom; whether classroom assignment and home assignments are given and evaluated.
8	School Environment	Focused on teachers' role in maintenance of school environment in terms of beautification plantation in the garden, decoration of the wall, cleanliness of toilets, Play ground

3.2.1.4 Classroom Observation Schedule for understanding the methods of classroom transaction, innovative classroom practices & practices of assessment in the schools under study. (Appendix H)

Table- 3.7 Dimension wise items for classroom observation schedule

Sl. No.	Dimensions	Number of Items
1	Introduction	06
2	Presentation	33
3	Assessment/ Evaluation and Feedback	06
4	Teacher Personality	09
Total		54

3.2.1.5 Documentary Analysis to study the levels of academic enrolment, retention, and achievement of students of Class IX and X in the secondary school under study.

3.2.1.6 Photographs of the unique and important events/ objects/ situations were taken to give a live shape to the study (**Appendix I**).

3.2.1.7 Field dairy/ field note to record the major events during the process of visit to the research site.

Table No-3.8 Objective wise tools

Sl. No.	Objectives of the Study	Tools for the Study
1	To make a status survey of Infrastructure facilities for students and employees available in secondary schools in tribal districts.	• Questionnaire-cum-Checklist
2	To examine what extent the equity and inclusive issues have been address by the school in terms of enrolment, retention and achievement.	• Questionnaire-cum-Checklist
3	To find out classroom transaction process in tribal areas with reference to teachers performance.	• Questionnaire-cum-Checklist • Classroom Observation schedule
4	To make in-depth studies of selected secondary schools to explore quality practices.	• Questionnaire-cum-Checklist • FGD (students) • Interview schedule for Head Masters, Teacher, and Parents
5	Photographs of the unique and important events/ objects/ situations will be taken to give a live shape to the study.	
6	Field dairy/ field note to record the major events during the process of visit to the research site	

3.3 Procedure of Data Collection

In the present study, to receive relevant evidence or data, the researcher collected data from respondents, i.e., Head Masters, Teachers, Students, and Parents, by personal visit to each district. To collect information, the researcher selected fifty (50) secondary schools from five (5) tribal districts of Odisha and various stakeholders using multistage sampling techniques.

The researcher collected the data in two phases, which took 100 days, i.e., (from 16/02/2021 to 27/05/2021) together in participatory mode. In the first phase, the researcher collected the data through a survey method from fifty (50) secondary schools in five (5) tribal districts of Odisha. It was primarily concerned with five (5) blocks such as the Bissam Cuttack block from Rayagada, Bhawanipatna block from Kandhamal, Papadahandi block from Nabarangpur, Boipariguda block from Koraput, and Podia block from Malkangiri districts of Odisha. After the first phase of the survey, the researcher analyzed the last three years (2017-20) of academic achievement of class X students from ten (10) secondary schools in each district. Further, in the second phase, the researcher selected one (1) secondary School out of ten (10) secondary schools from each district as a case based on their highest average academic achievement in class X. Overall, sought permission from the School to conduct the study. At first, the researcher took due consent of the BEOs and Head Master and then gradually got access to the other informants like students, teachers, and parents. As many as ten parents were also explored incidentally during the Case study.

The researcher collected data from all relevant sources with the help of Questionnaire-cum-Checklist, Classroom Observation Schedule, and Interview Schedule for Head Master, Teachers' and Parents. During field activities, the researcher conducted FGD with Students, took photographs, and maintained field dairy for taking necessary notes of the entire research work.

3.4 Procedure of Data Analysis

Firstly, data were entered into M.S. Excel with proper coding to analyze the collected data. The overall data analysis process has done through the IBM SPSS 20 licensed version provided by the University of Hyderabad, Telangana, India. The quantitative technique includes frequency and percentage analysis. Interviews and Focus Group Discussion data was analyzed manually using M.S. Word and further coding and interpreting the data properly. A clear picture of the qualitative analysis process has presented in the following diagram.

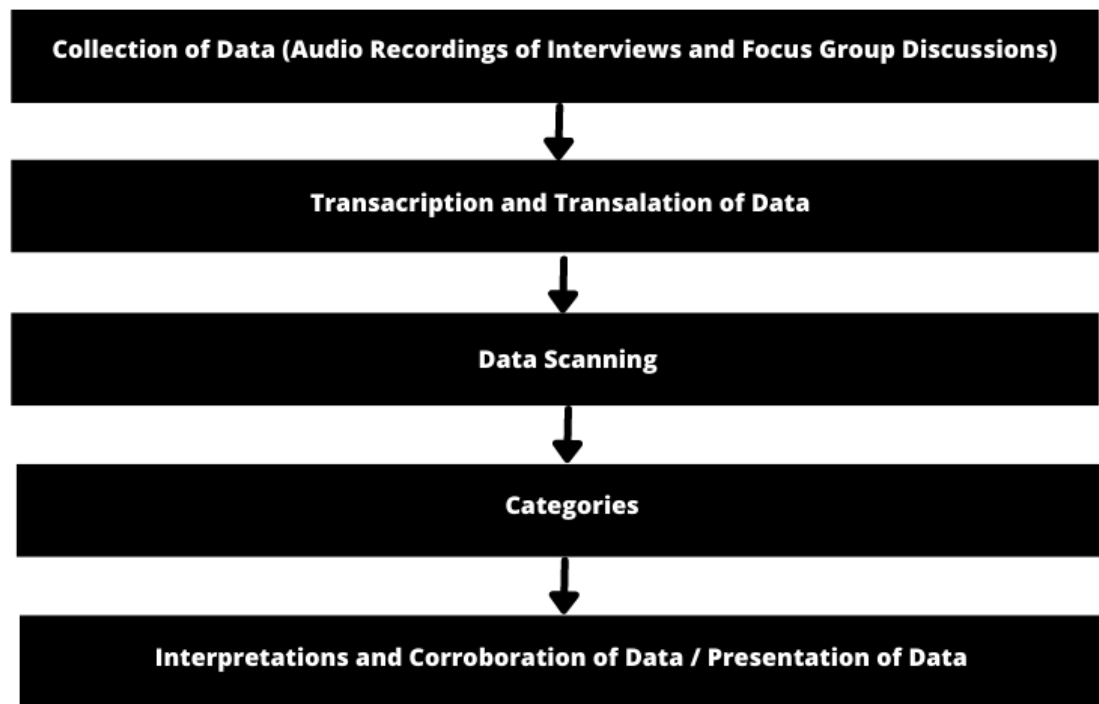


Diagram 3.2: Qualitative data analysis procedure

Source: The researcher followed the above process for analysis of Interview and FGD data.

CHAPTER IV

CHAPTER IV

ANALYSIS AND INTERPRETATION

4.0. Introduction

This chapter deals with the analysis and interpretation of data. The data analysis and interpretation process has been made through research questions and objectives. *The researcher has compiled all analyzed primary data and presented it in different tables, figures, and boxes.* The researcher collected data from fifty secondary schools from five tribal districts of Odisha, so $n=50$. However, the classroom observation data was analyzed with a different value, i.e., $n=55$, because the number of classes observed by the researcher was 55. This chapter also analyzed five case studies separately and corroborated the quantitative data with qualitative data, i.e., interview and FGD responses collected from different stakeholders.

Majorly used six tools for collecting data, i.e., Questionnaire-cum-checklist, Interview Scheduled for HMs, Teachers, and Parents, Focus Group Discussions for Students, and Classroom Observation schedules for understanding the methods of classroom transactions. Considering the objectives and research questions, data is analyzed quantitatively using simple descriptive statistics, i.e., frequency, percentages, and graphical data presentation, to draw the results. However, in the case of studies, qualitative data is defined with different codes, then corroborated with quantitative data to strengthen the quantitative data. The details of the objectives-wise tools are described below

Sl. No.	Objectives of the Study	Tools for the Study
1	To make a status survey of Infrastructure facilities for students and employees available in secondary schools in tribal districts.	Questionnaire-cum-Checklist for HMs
2	To examine what extent the equity and inclusive issues have been address by the school in terms of enrolment, retention and achievement.	
3	To find out classroom transaction process in tribal areas with reference to teachers performance.	Classroom Observation schedule
4	To make in-depth studies of selected secondary schools to explore quality practices.	• Questionnaire-cum-Checklist • FGD (students), Interview schedule HMs, Teachers, Parents

4.1 Overall Profile of Fifty Secondary Schools

Table No. 4.1: Number of sections available in Class IX & X

Sl. No	No. of Sections(IX)	No. of Schools N (%) (IX)	No. of Sections (X)	No. of Schools N (%)
1	1	31(62)	1	32(64)
2	2	10(20)	2	11(22)
3	3	4(8)	4	4(8)
4	4	3(6)	5	2(4)
5	5	1(2)	6	1(2)
6	6	1(2)	-	-

Table 4.1 indicates that up to 64% of secondary schools have 1 section separately for both IX and X class students. Further, 22% of secondary schools have 2 sections in classes IX & X. There are very few (2%) schools that have 6 sections for students in classes IX and X. So it can be concluded that majority (62% to 64%) of the secondary schools have 1 section for the student of both class IX and X, and 8% of schools have 3 to 4 sections for both classes. However, a very few (2%) schools have 6 sections for both classes.

Table No. 4.2: Number of Class IX students available against each section

Sl No	Number of Students	Sections	Total Numbers of Schools N (%)
1	5-40	1	23 (46)
2	41-50	1	8(16)
3	51-182	1	15(30)
4	82-122	2	4(8)

It is revealed in table 4.2 that 46% of secondary schools have 1 section for 5 to 40 students in a single class of IX. The same table also indicated that 16% to 30% of secondary schools have 41 to 182 number of student in a single section. It also showed that 8% of secondary schools have 2 sections in class IX and 82 to 122 students in a single class. So, it can be concluded that only 46% of secondary schools have 1 section for an appropriate number of students in class, i.e., 5 to 40. However, most (54%) of secondary schools with more than 41 or above 100 students in a single class were over-lapping the government regulation. Still, due to Covid 19, there was a special arrangement for where it exceeded the number of students more than 50 & it is depicted in photo 1.



Photo 4.1: Over-lapping students in a single classroom in class IX

Table 4.3: Number of Class X students available against each section

Sl No	Number of Students	Sections	Total Numbers of Schools N (%)
1	2-40	1	19 (38)
2	41-70	1	18(36)
3	71-203	1	13(26)

It is observed from above table 4.3 that 38% of secondary schools have 1 section for 2 to 40 students in a single class of X. The same table also indicated that 36% of secondary schools have 41 to 70 number of student in a single section of class X. It also showed that 26% of secondary schools have 1 section in class X, where 71 to 203 students are in a single class. So it can be concluded that only 38% of secondary schools have 1 section for an appropriate number of students in class, i.e., 2 to 30. However, the majority (62%) of secondary schools with more than 31 or above 100 students in a single class were over-lapping the government regulation. Still, due to Covid 19, there was a special arrangement for that where it exceeded the number of students more than 50 & it is depicted in photo 2 for over-lapping & photo 3 for few students in a single class X.



Photo 4.2: Over-lapping students in a single classroom in class X



Photo 4.3: Very few students in a single classroom in class X

Table 4.4: Classes available in all fifty secondary schools

Sl No.	Class Available	Total No. of Schools N (%)
1	IX-X	6(12)
2	VI-X	3(6)
3	I-X	35(70)
4	VIII-X	6(12)

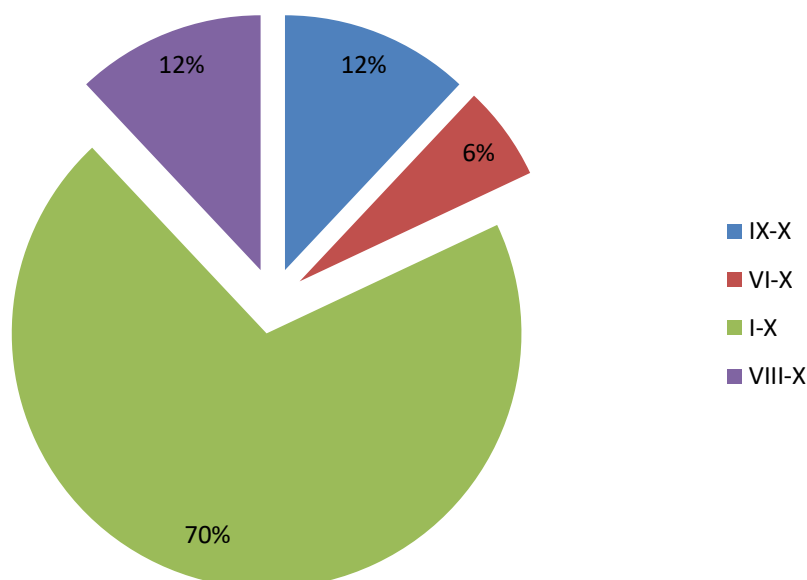


Figure 4.1 Classes available in all fifty secondary schools

It is observed from figure 4.1 that 12% of secondary schools have classes IX and X. There 6% of secondary schools have VI and X; 70% have classes from I to X, & 12% have classes from VIII to X. So it comes to an end that majority (70%) of secondary schools have classes from I to X which is integrated classes from primary to secondary schools except for interlink with teacher education institution as per the Samagra Shiksha Abhiyan objectives & very few (6% to 12%) secondary schools have classes, i.e., VI to X, IX to X, & VII to X.

Table 4.5: Distance of secondary schools from student habitation

Sl No.	Distance	Total No. of Schools N (%)
1	<3km	1(2)
2	3 to 5 km	0
3	>5km	49(98)

It is revealed from table 4.5 that 98% of secondary schools were located more than 5km from the student habitation in the tribal district of Odisha. The table also shows that only 2% of secondary schools were located less than 3km from the student habitation. So it can be

concluded that the majority (98%) of Secondary Schools in the tribal district of Odisha are more than 5km from the student habitation & due to hilly areas, students are unable to access the class regularly, especially during the rainy & summer seasons.

Research Question 1: *What extent the infrastructure arrangement including residential facilities for student employees available in the schools under the study, are contributing quality education?*

Research Objective 1: *To make a status survey of infrastructure facilities for students and employees available in secondary schools in tribal districts.*

4.2 Status of Infrastructure Facilities

Table 4.6: Details about the secondary schools arrangement

Sl. no.	Dimensions	Availability N (%)		If Yes, N (%)				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1	Classrooms	49(98)	1(2)	1(2)	17(34)	25(50)	4(8)	2(4)
2	HM/Principal Room	41(82)	9(18)	1(2)	14(28)	25(50)	1(2)	9(18)
3	Office Room	41(82)	9(18)	1(2)	14(28)	25(50)	1(2)	9(18)
4	Library	31(62)	19(38)	1(2)	7(14)	22(44)	1(2)	19(38)
5	Reading room	21(42)	29(58)	-	5(10)	16(32)	-	-
6	Labs	22(44)	28(56)	1(2)	12(24)	9(18)	-	28(56)
7	Play Ground	20(40)	30(60)	6(12)	12(24)	2(4)	-	-
8	Staff Common Room	31(60)	19(40)	1(2)	8(16)	19(38)	2(4)	1(2)
9	Students Hostel	12(24)	38(76)	-	7(14)	4(8)	1(2)	-
10	Staff Quarters	1(2)	49(98)	-	-	-	1(2)	-

It is seen from table 4.6 that 60% above up-to 98% secondary schools have Classrooms for student, Head Master Rooms (82%), Office Rooms(82%), Libraries(62%), & Staff Common

Rooms (60%). However, most (50%) of the rooms are in manageable condition or adjusted or merge with other rooms. This shows that 34% of secondary schools classrooms are in good condition, followed by Headmaster Rooms (28%), Office Rooms (28%), Libraries (14), & Staff Common Rooms (16%). Further, the table also reveals that 58% of secondary schools don't have reading rooms, followed by Labs (56%), playgrounds (60%), Student hostels (76%), & Staff Quarters (98%). So it can be assumed that although the majority (60% to 80%) of secondary schools have Classrooms, Head Master Rooms, Office Rooms, Libraries, & Staff Common Rooms. However, the overall conditions are manageable, known as adjusting to the other rooms. Most of the Secondary Schools don't have Reading Rooms (58%), Play Ground (60%), Student Hostel (76%), & majority (98%) don't have Staff Quarters.

Table 4.6.1: Details about the secondary schools arrangement

Sl No.	Dimensions	Availability N (%)		If Yes, N (%)				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1.	Ramp and Railing for inclusive environment	18(36)	32(64)	-	1(2)	14(28)	2(4)	1(2)
2.	Computer room	22(44)	28(56)	1(2)	8(16)	11(22)	1(2)	1(2)
3.	Separate Toilet blocks for boys and girls	46(92)	4(8)	1(2)	21(42)	18(36)	5(10)	1(2)
4.	Separate Toilet for teachers	16(32)	34(68)	1(2)	11(22)	4(8)	-	-
5.	Separate toilet for female teachers	6(12)	44(88)	1(2)	4(8)	1(2)	-	-
6.	Drinking Water Facility	43(86)	7(14)	-	20(40)	15(30)	8(16)	-
7.	Resource Room	1(2)	49(98)	-	-	1(2)	-	-

8.	Auditorium/ Multi Purpose Hall	3(6)	47(94)	-	2(4)	-	-	1(2)
9.	Medical Sick Room	-	50(100)	-	-	-	-	-
10.	Boundary Wall	29(58)	21(42)	1(2)	12(24)	7(14)	5(10)	4(8)

It is observed from the above table that 55% above up to 100% of secondary schools don't have Ramps and Railing for an Inclusive Environment (64%), Computer Rooms (56%), Separate Toilets for Teachers (68%), Separate Toilet for Female Teachers (88%), Resource Room (98%), Auditorium/Multipurpose Hall & Medical Sick Room (100%). The same table also shows that 92% of secondary schools have Separate Toilet blocks for both boys and girls under excellent (1%) & 42% in good conditions. Most (58%) of the secondary schools have a boundary wall, while only 24% of boundary walls are in good condition. Further, the table also reveals that 86% of secondary schools have Drinking Water Facilities, whereas only 40% comes under good categories for providing safe drinking water. So, it can be concluded that the majority of secondary schools in tribal areas don't have Medical Sick Rooms (100%), Resource Rooms (98%), Separate Toilets for Female (88%) & Teachers (68%), Computer Rooms (56%) and Ramps and Railing for Inclusive Environment (64%). However, the majority of secondary schools have Toilet Blocks for Boys and Girls (92%), Boundary Wall (58%), and Drinking Water Facilities (86%), but overall conditions are neither excellent nor good.

Table 4.6.2: Details about the secondary schools arrangement

Sl No.	Dimensions	Availability N (%)		If Yes, N (%)				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1.	Kitchen Shed	21(42)	29(58)	-	8(16)	11(22)	-	2(4)
2.	Art/Craft/Culture room	-	50(100)	-	-	-	-	-
3.	Girls' Hostel	9(18)	41(82)	-	7(14)	1(2)	-	1(2)
4.	Boys' Hostel	8(16)	42(84)	-	5(10)	3(6)	-	1(2)

5.	Garden	21(42)	29(58)	1(2)	8(16)	12(24)	-	-
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It is evident from the above table 4.6.2 that the majority of the secondary schools in tribal areas don't have Kitchen Shed (58%), Art/Craft/Culture Room (100%), Girls Hostel (82%), Boys Hostel (84%) and Garden (58%). However, arrangement exists in secondary school, but the condition under mostly manageable (24%) conditions or some extent, good (16%).

Table 4.6.3: Hostel facilities for students

Sl No.	Capacity of Boys' Hostel Seated	Total Number of Schools N (%)
1	100 Seated	4(8)
2	110	2(4)
3	43	1(2)
4	50	1(2)
5	70	1(2)
	Total	9(18)
	Girls' Hostel Seated	Total Number of Schools
1	100 Seated	5(10)
2	110	2(4)
3	50	1(2)
	Total	8(16)

Table 4.6.3 indicated that 18% of secondary schools have boys' hostel facilities with specific seated hostels, i.e., 100 seated (8%), 110 seated (4%), 43 seated (2%), 50 seated (2%), and 70 seated (2%). Further, 16% of secondary schools have girl's hostel facilities, with specific seated hostels, i.e., 100 seated (10%), 110 seated (4%), and 50 seated (2%). So it can be concluded that the majority (84%) of secondary schools don't have hostel facilities.

Table 4.6.4: Curriculum components & facilities

SI No.	Curricular Inputs	Yes N (%)	No N (%)
1	Library Books	49(98)	1(2)
2	Science Lab	24(48)	26(52)
3	Science Equipment	43(86)	7(14)
4	Language Lab	-	50(100)
5	Social Science Lab	-	50(100)
6	Computer Lab	9(18)	41(82)
7	e-Pathshala Accessibility	3(6)	47(94)

It is indicated from the above table that 49% of secondary schools have Library Books, 48% have Science Labs, and 86% of secondary schools have Science equipment. Further, the table indicated that 100% of secondary schools don't have a Language lab, Social Science lab, 82% don't have a Computer lab (having PCs and other technological aids), & 94% of schools don't have e-Pathshala accessibility. So it comes to an end that the majority of secondary schools have Library Books (98%). Although the majority of secondary schools have Science equipment (86%), half of the schools don't have a Science lab (52%). The majority of secondary schools don't have 100% Language lab & Social Science lab, 82% don't have a computer lab, & 94% of schools don't have e-Pathshala accessibility which is visible in Figure 4.2.

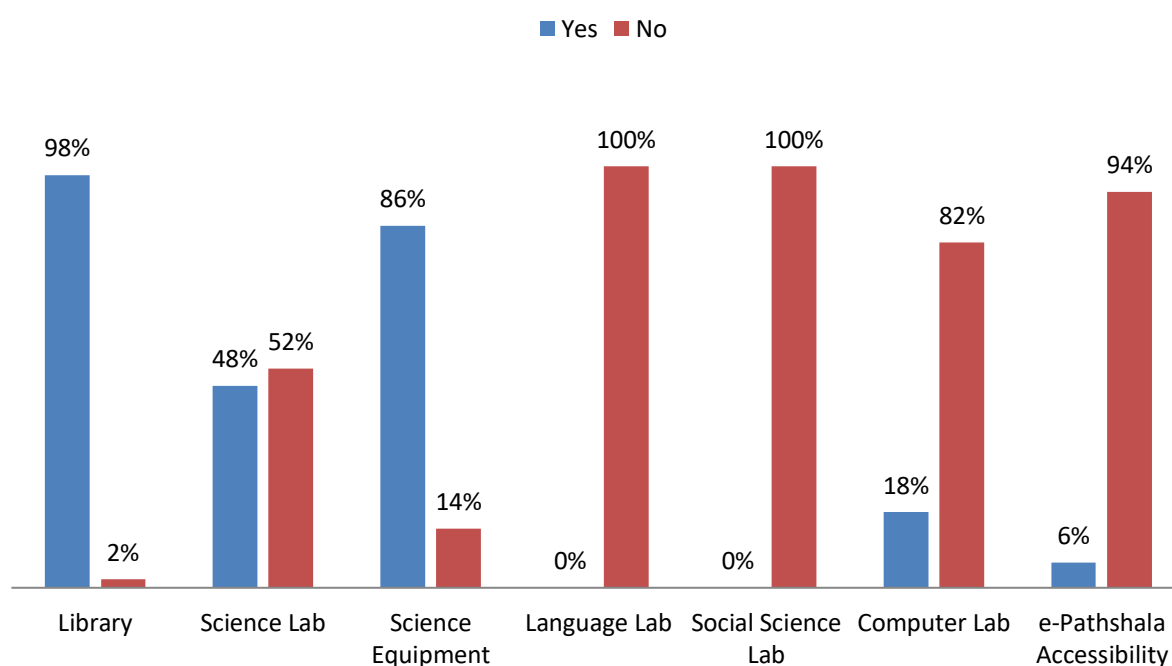
*Figure 4.2 Curriculum Components & Facilities*

Table 4.7: Staff position in secondary schools: Teaching Staffs

Positions	Sanctioned N (%)	In position N (%)	Vacancy N (%)
Head Master/Teacher	50(100)	20(40)	30(60)
Asst. teacher – Science (PCM)	52(100)	35(67)	17(33)
Asst. teacher – Science (CBZ)	54(100)	27 (50)	27(50)
Asst. teacher – Arts	104(100)	95(91)	9(9)
Asst. Teacher – classical	93(100)	48(52)	45(48)
PET	50(100)	28(56)	22(44)
Any other	12(100)	12(100)	-

**N is the total number of each sanctioned post of this table*

Table 4.7 explained that the majority of the secondary schools don't have required number of Head Masters (60%); although 40% are available, those positions are just for adjustment. Further, it revealed that half of the teaching positions of different subjects filled in secondary schools are PCM (67%), CBZ (50%), Classical Teachers (52%) & PET (56%). Very few teaching posts have a majority teacher in his teaching positions are Arts/Social Science Teachers (91%) & in any other Vocational Teachers (100%). So it concluded that Secondary Schools in tribal areas of Odisha don't have Head Master (60%). The majority of the schools run with half of their subject teachers, i.e., PCM (67%), CBZ (50%), Classical Teachers (52%) & PET (56%), which will be a negative impact on the quality school education at school level which is visible in Figure 4.3.

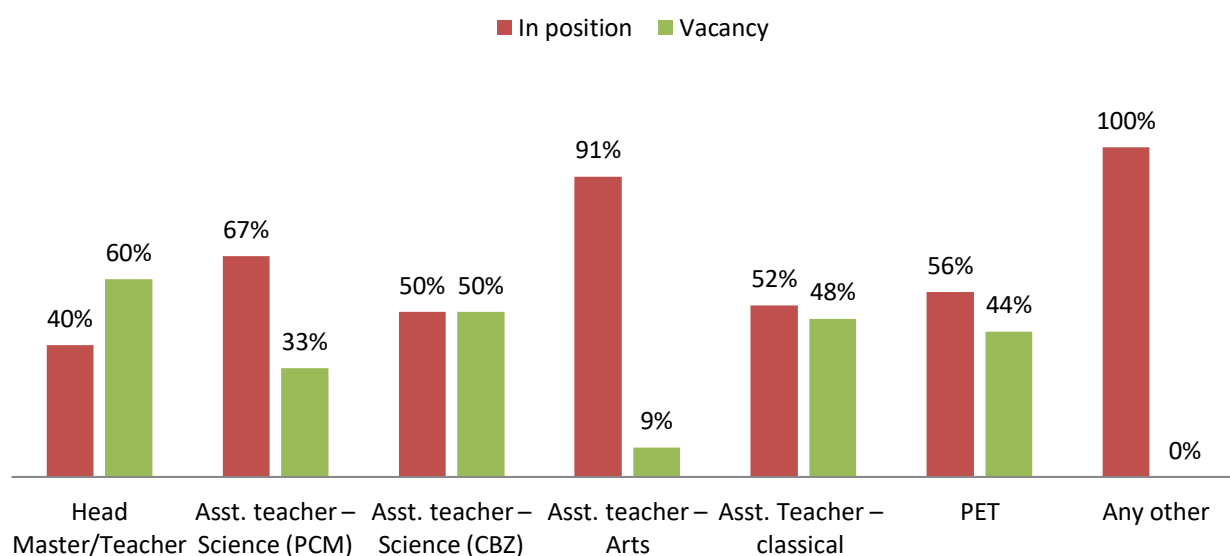


Figure 4.3 Staff position in secondary schools: Teaching Staffs

Table 4.7.1: Nature of teaching post

Types of Teacher	Regular Teacher	Contractual Teacher	Part Time /Deputed Teacher
N (%)	218(88.2)	40(15.09)	07(2.6)

It is observed from Table 4.7.1 that the majority (88.2%) of the secondary schools' teachers have posted on a regular scale as compared to contractual (15.09%) & Part-time/Deputed teachers (2.6%).

Table 4.7.2: Gender wise teachers

Gender	Male	Female
N (%)	191(72.07)	74(27.92)

It is evident from table 4.7.2 that the majority of secondary schools have, 72.07% have male teachers, and only 27.9% are female. So it can be concluded that there is a huge (44.98%) difference between male and female teachers in terms of presence in secondary schools.

Table 4.7.3: Social Category wise teachers

Category	General	SC	ST	OBC	Others
N (%)	93(35.09)	46(17.35)	24(9.05)	57(21.5)	45(16.9)

Table 4.7.3 indicates that secondary schools have 35.1% General, 17.35% SC, 9.1% ST, 21.5% OBC, and 16.9% others, i.e., Minorities, etc., teachers. So it concluded that the ST category (9.1%) of teachers are very few as compared to other category teachers.

Table 4.7.4: Qualification of teachers

Qualification	Degree	Degree and B.Ed.	PG and B.Ed. or Above
N (%)	10(3.7)	223(84.1)	32(12.1)

It is found from the above table that 3.4% of teachers have a single degree, 84.1% of teachers have a degree with B.Ed., and 12.1% of teachers have PG with B.Ed. or above qualification.

So it can be concluded that the majority (84.1%) of secondary school teachers were trained compared to those having a degree only (3.7%).

Table 4.8: Staff Position in secondary schools: Non-Teaching Staff

Positions	Sanctioned N (%)	In position N (%)	Vacancy N (%)
Clerk	50(100)	11(22)	39(78)
Librarian	-	-	-
Lab Asst.	-	-	-
Peon	67(100)	21(31)	46(69)
Watchman/security	31(100)	6(19)	25(81)

**N is the total number of each sanctioned post of this table*

It is observed from the above table 4.8 that the majority of secondary schools have vacant non-teaching posts, i.e., Clerk (78%), Peon (69%) & Watchman/Security (81%). Further, it is observed that most secondary schools don't have a proper sanctioned post for non-teaching staff, which is visible in Figure 4.4.

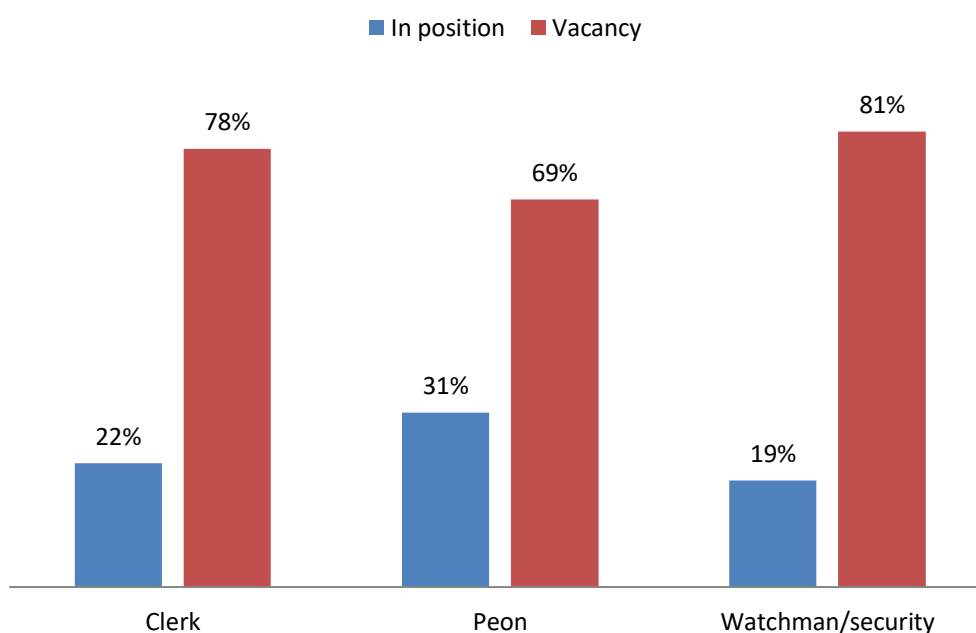


Figure 4.4 Position in secondary schools: Non-Teaching Staff

Table 4.9: Status of secondary schools: Under different facilities

Sl No.	Facilities	Responses N (%)	
		Yes	No
1	Availability of Safe Drinking Water in School	20(40)	30(60)
	Source of Drinking Water Tap Water	25(50)	25(50)
	Hand Pump	23(46)	27(54)
	Any others (Filter etc.)	2(4)	48(86)
2	Availability of Electricity in School	39(78)	11(22)
3	Availability of Fans in Classrooms	38(76)	12(24)
4	Ventilation in Classrooms: Well Ventilated	41(82)	9(18)
	Manageable	9(18)	41(82)
5	Light in Classroom: Well Lighted	40(80)	10(20)
	Manageable	10(20)	40(80)
6	Availability of Playground in School Premises	20(40)	30(60)
7	Availability of Locker facility in School	14(28)	36(72)

It is indicated from table 4.9 that the majority of the secondary schools have different facilities, i.e., Drinking water facilities under different sources, i.e., Tap Water (50%), Hand Pump (46%), Electricity (78%), Fans (76%), Well Ventilated (82%), Well Lighted (80%). Further, it is found that 60% to 72% of Secondary Schools don't have a Playground on School Premises (60%), Locker Facility (72%). So it can be concluded that the majority of secondary schools have different basic facilities but not in a full-fledged manner. The majority of secondary schools don't have safe drinking water in school, and Playground (60%) within its premises indicate serious concern in this matter, which is visible in Figure 4.5.

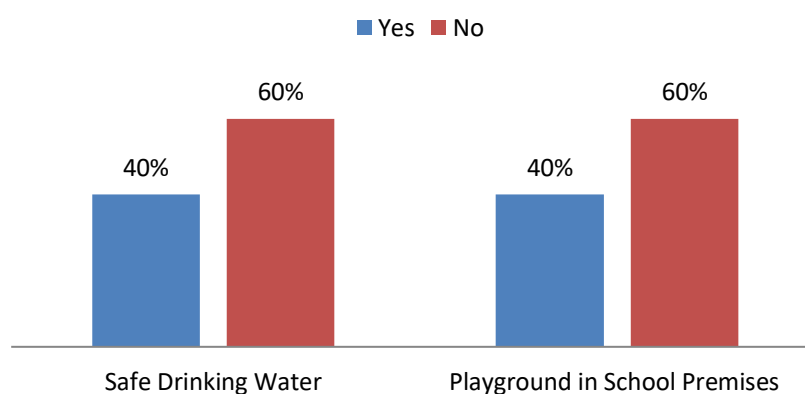
*Figure 4.5 Availability of Safe Drinking Water and Playground in School Premises*

Table 4.9.1: Status of secondary schools: Under different facilities

Sl No.	Facilities		Responses N (%)	
			Yes	No
8	Availability of facilities for CWSN Students		7(14)	43(86)
	Ramps		18(36)	32(64)
	Hand Drill		8(16)	42(84)
	Toilets		-	50(100)
	Adapted Computer Lab		-	50(100)
9	Availability of Internet Connectivity		1(2)	49(98)
10	Availability of LAN (Local Area Network) facility		1(2)	49(98)
11	Total Number of Schools fully available and accessible computer facilities for students		11(22)	39(78)
12	Number of Printers available in School		16(32)	34(68)
13	Available of Fire Extinguisher facilities in School		38(76)	12(24)
14	Availability of hostel facilities for students		14(28)	36(72)
11.1	Items	Teaching Purpose	Office Use	Total
	Number of Computers in working condition available in the School	118	14	132

It is evident from the above table that secondary schools don't have special facilities for Children with Special Need (CWSN) Students (86%), Internet Connectivity & LAN connectivity (98%), Computer facilities for student (78%), Printers (68%) and Hostel Facilities (72%). Same table also revealed that 76% secondary schools have Fire Extinguish (76%) facilities. So, it can be assumed that majority of the secondary schools don't have proper facilities i.e., Children with Special Needs Students (86%), Internet Connectivity & LAN connectivity (98%), Computer facilities for student (78%) and whatever the computers are working condition mostly used for teaching purpose (118 out of 132), Printers (68%) and Hostel Facilities (72%) which is clearly visible in Figure 4.6

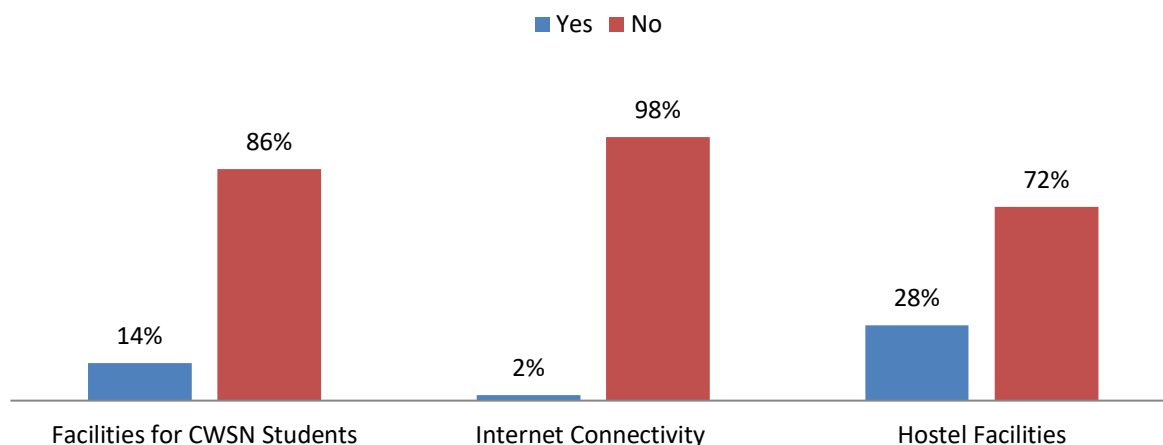


Figure 4.6 Status of secondary schools: Under different facilities

Table 4.9.2: Student Classroom Ratio (SCR)

Sl No	Classes	Number of Students	Number of Class Rooms	Total Number of Schools N (%)
1	IX	22-40	No room	2 (4)
2	IX	1 to 40	1 to 2	23 (46)
3	IX	40 and Above (up-to 182)	1	25 (50)
4	X	9-47	No Room	2 (4)
5	X	1 to 40	1 to 2	19 (38)
6	X	40 and Above (up to 203)	1	29 (58)

It is found from the above table 4.9.2 that 46% of secondary schools have 1 to 2 classrooms for 1 to 40 students or less than that in class IX & the same structure in class X, i.e., 38%. The same table also indicated that 50% of schools have 1 classroom for 40 and above (up to 182) students in class IX and 58% and above (up to 203) students in class X. Further, it shows that 4% of schools don't have a classroom for 22 to 40 number of student in classes IX and X. So it can be observed that although only (above 38% to 46%) of secondary schools both in class IX and X have a classroom for reasonable students. However, the majority of secondary schools, i.e., above 50% to 58% in class IX and X, have overlapping students & 4% of the secondary schools don't have classrooms for both class IX and X students.

Table 4.9.3: Status of secondary schools: Pupil Teacher Ratio (PTR)

Sl No	Classes	Students	Number of Teachers	Total Number of Schools N (%)
1	IX-X	1-40	1	28 (56)
2	IX-X	1-40	2 & Above	2 (4)
3	IX-X	40 & Above	1	20(40)

It is observed from the above table 4.9.3 that 56% of secondary schools have 1 teacher for 40 students and 4% of secondary schools have 2 or more teachers for 40 students. The table also shows that 40% of secondary schools have 1 teacher for more than 40 students. So it can be concluded that although the majority (60%) of secondary schools have a good pupil-teacher ratio (as per the NEP & SSA regulation), there are still 40% of secondary schools where the teacher-pupil ratio is high, i.e., 40 and above students for a single teacher.

Table 4.10: Classroom environment

Sl. No.	Dimensions	Availability N (%)		If yes... N (%)				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1	Suitable size of Classrooms	42(84)	8(16)	2(4)	20(40)	17(34)	3(6)	-
2	Sitting arrangement (Desk/ Chair-table etc.)	39(78)	11(22)	1(2)	17(34)	15(30)	5(10)	1(2)
3	Space for group work	34(68)	16(32)	-	12(24)	16(32)	6(12)	-
4	Black board	47(94)	3(6)	2(4)	30(60)	11(22)	3(6)	1(2)
5	White board	17(34)	33(66)	-	12(24)	5(10)	-	-
6	Class room colour and Decoration	14(28)	36(72)	1(2)	7(14)	5(10)	1(2)	-

7	Electricity with fan and Light	36(72)	14(28)	2(4)	27(54)	7(14)	-	-
8	Ventilation	47(94)	3(6)	9(18)	28(56)	6(12)	5(10)	-
9	General Cleanliness	49(98)	1(2)	10(20)	36(72)	3(6)	-	-
10	TLM corner	21(42)	29(58)	1(2)	9(18)	11(22)	-	-

It is evident from the above table 4.10 that the majority of the secondary schools have Suitable sizes of Classrooms (84%), Seating arrangements (Desk/Chair-table, etc.) (78%), Space for Group Work (68%), Black Board (94%), Electricity with Fan and Light (72%), Well Ventilation (94%) and General Cleanliness (98%) for the present classroom environment and overall conditions of these classroom environments are in good & manageable conditions. Further, it's indicated that the majority of the secondary schools don't have White Board (66%), Classroom Colour and Decoration (72%), and TLM Corner (58%). So it can be concluded that although the majority of dimensions for an effective classroom environment are available & in good or manageable conditions, there are a few dimensions that are still unavailable; these are White Board (66%), Classroom painting, and Decoration (72%) and TLM Corner (58%).

Research Questions 2: *What is the status of equity and inclusion in enrolment, retention & achievement with respect to gender, category and CWSN in the schools of tribal districts of Odisha?*

Research Objectives 2: *To examine what extent the equity and inclusive issue have been addressed by the school in terms of enrolment, retention & achievement.*

4.3 Status of Equity and Inclusion at Secondary School Level

Table 4.11 Overall enrolments both in Class IX and X

	Overall Enrolment						
Year	Class IX	Boys	Girls	Class X	Boys	Girls	Transitions Gap (IX-X)
2015-16	2706	1463	1243	2298	1312	986	-
2016-17	2922	1643	1279	2438	1337	1101	268
2017-18	2962	1692	1270	2729	1576	1153	193
2018-19	2876	1696	1180	2547	1417	1130	415
2019-20	3118	1685	1433	2455	1422	1033	421

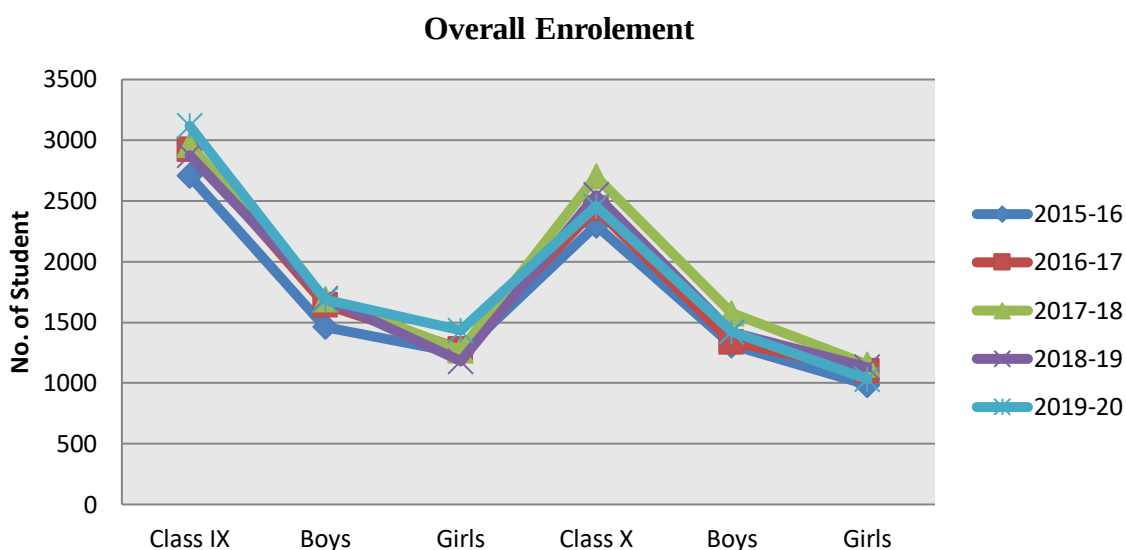


Figure 4.7 Overall Enrolments in all five Districts (IX & X)

It is observed from figure 4.7 and table 4.11 that 2706 numbers of students where boys (1463) & girls (1243) are enrolled in class IX in the year 2015-16 and 2298 in class X, where boys (1312) & girls (986), but if we compared with 2019-20 enrolment then it indicated that the enrolment is increased compared to the previous year along with gender-wise too. However, there is a huge transitional gap (268 in 2016-17 & 421 in 2019-20) between classes IX enrolments with class X as it is lower and increased year-wise. Similarly, in the case of a gender-wise gap, too, i.e., in-class IX, there were 220 gaps among boys and girls in 2015-16 & 252 gaps in 2019-20. So it comes to an end that the overall enrolment rate is increasing in classes IX and X independently. But, when it comes to continuity from class IX to X, there is a constant fall known as the transitional gap. Boys' enrolment is more in both classes compared to girls' students and the differences such as 220 in 2015-16 & 252 in 2019-20 in class IX and 326 in 2015-16 and 389 in 2019-20 in class X.

Table 4.12 Overall enrolments (Category wise) in Class IX

Categories	2015-16	2016-17	2017-18	2018-19	2019-20
Class IX	2706	2922	2962	2876	3118
Boys	1463	1643	1692	1696	1685
Girls	1243	1279	1270	1180	1433
General	69	120	183	217	199
SC	769	807	792	661	797
ST	1283	1342	1352	1365	1471
OBC	575	648	625	601	633
Minorities	7	5	10	32	18
CWSN	3	0	0	0	0

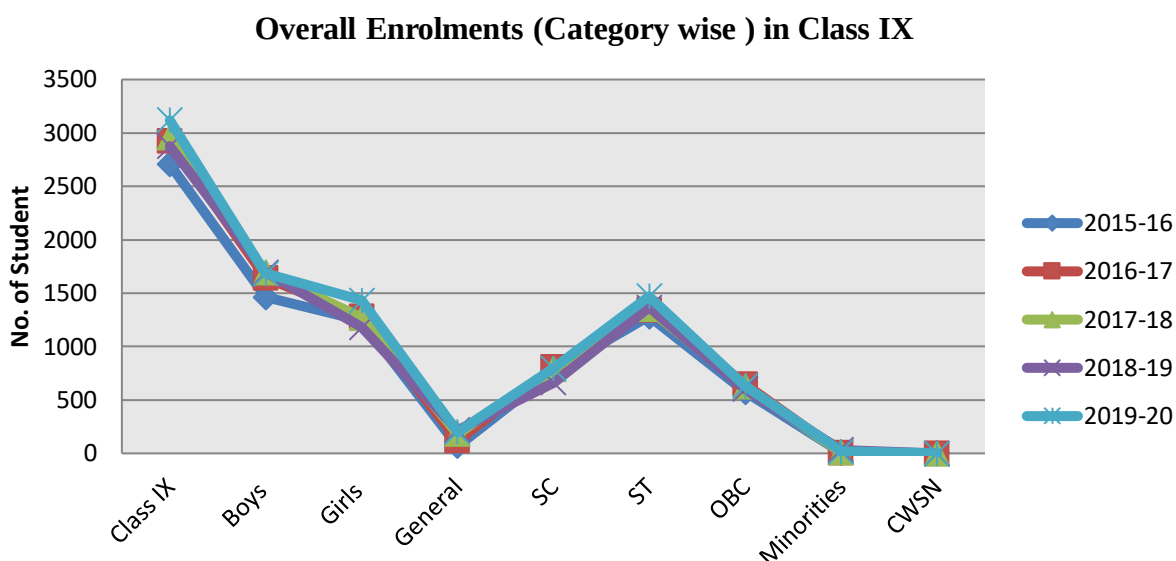


Figure 4.8 Overall Enrolments (Category wise) in Class IX

It is evident from table 4.12 and figures 4.8 that overall enrolment of class IX is increasing from 2015-16, i.e., 2706 students to 3118 students in 2019-20, along with gender-wise too. Further, it revealed that Scheduled Tribes students' enrolment is highest (1283 number of students in 2015-16 & 1471 number of students in 2019-20) as well increasing year wise as compared to other categories of students' as followed with Scheduled Caste students' enrolment, i.e., 769 number of students in 2015-16 & 797 number of students in 2019-20. The graph also shows that the enrolment rate in the General category is up and down year wise & in CWSN categories, students decrease year-wise. So it can be concluded that Scheduled Tribe Students enrolment is the highest among other categories of students & followed by Scheduled Caste Students, Other Backward Categories, General, Minorities, and Children with Special Need category students'.

Table 4.13 Overall enrolments (Category wise) in Class X

Categories	2015-16	2016-17	2017-18	2018-19	2019-20
Class X	2298	2438	2720	2547	2455
Boys	1320	1335	1570	1417	1422
Girls	986	1103	1150	1130	1033
General	78	68	147	194	186
SC	619	686	726	602	579
ST	1090	1087	1210	1159	1131
OBC	498	584	634	563	530
Minorities	9	11	3	29	29
CWSN	2	2	0	0	0

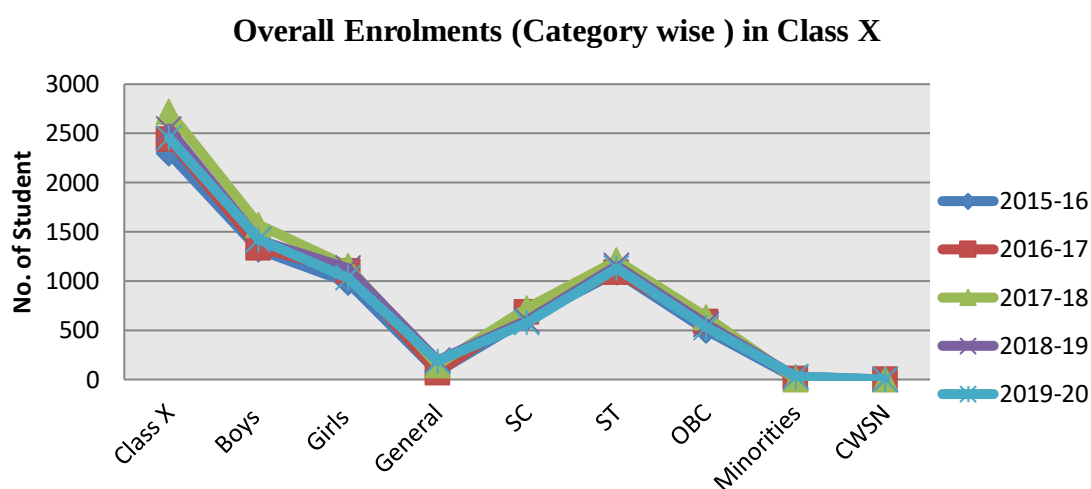


Figure 4.9 Overall Enrolments (Category wise) in Class X

It is revealed from table 4.13 and figures 4.9 that overall enrolment of class X is increasing from 2015-16, i.e., 2298 students to 2455 students in 2019-20, along with gender-wise too except in the year 2017-18 and 2018-19. Because in 2017-18, there were 2720 enrolled students, and in 2018-19 there were 2547 students enrolled, which is almost the highest enrolment of both gender wise as compared to 2015-16 and 2019-20. Further, it is revealed that Scheduled Tribes students' enrolment is the highest (1090 number of students in 2015-16 & 1131 number of students in 2019-20) as well increasing year-wise compared to other categories of students. The graph also shows that the enrolment rate in the Scheduled Caste category is up & down year wise & in CWSN categories, students fully decreased year-wise. So it can be concluded that the enrolment rate in class X is not constantly increasing from 2015 to 2020, particularly in the year 2017-18 the enrolment rate is higher than in other years. The scheduled tribe students' enrolment is the highest among other categories of students & followed by Scheduled Caste Students, Other Backward Categories, General, Minorities, and Children with Special Need category students'.

Table 4.14: Overall retention rate (Category Wise)

Category	2016-17 (%)	2017-18 (%)	2018-19 (%)	2019-20 (%)
Boys	91.25	93.28	83.74	83.84
Girls	88.73	89.91	88.97	87.54
General	98.55	100	100	85.71
SC	89.20	89.96	76.01	87.59
ST	82.38	90.16	85.72	82.85
OBC	100	90.83	90.08	88.18
Minorities	100	60.00	100	90.62
CWSN	50.00	-	-	-

The above table 4.14 shows that the overall retention rate of both boys and girls is decreased compared to the previous year, followed by every category. The table also indicated that except for CWSN, and Minority students, other category students' have an 80% above retention rate. So it can be concluded that the retention rate in secondary schools in tribal districts of Odisha is up and down.

Table 4.15: Overall dropout (Category Wise)

Categories	2016-17	2017-18	2018-19	2019-20
Overall Boys	190	153	261	277
Overall Girls	152	154	166	179
Boys General	2	1	13	16
Girls General	3	8	10	9
Boys SC	59	56	82	50
Girls SC	46	43	63	47
Boys ST	109	81	118	165
Girls ST	79	88	72	86
Boys OBC	19	15	47	46
Girls OBC	24	15	21	34
Boys Minorities	0	0	1	0
Girls Minorities	0	0	0	3
Boys CWSN	1	0	0	0
Girls CWSN	0	0	0	0

Overall Dropout (Category Wise)

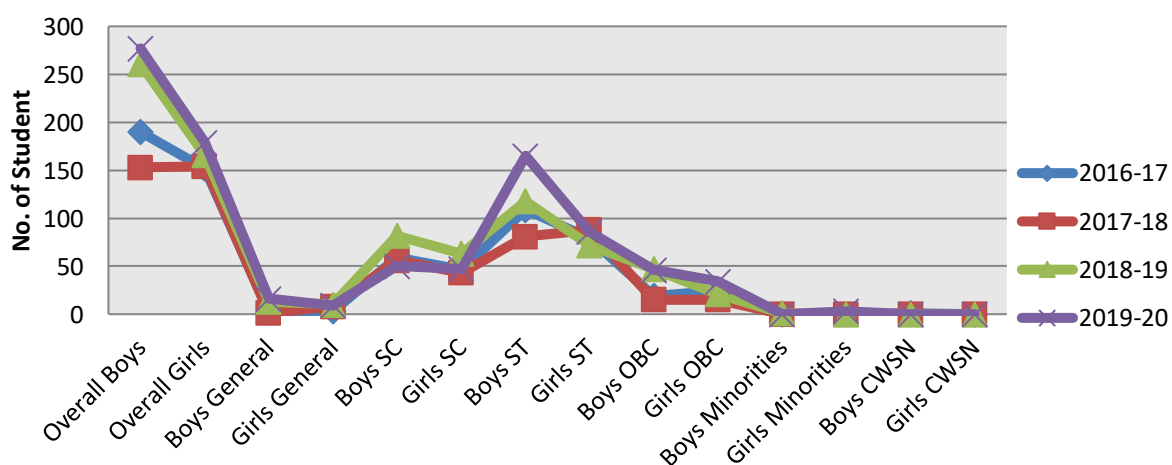


Figure 4.10 Overall Dropout (Category Wise)

It is found from the above figure 4.10 and table 4.15 that the dropout rate in secondary schools of tribal districts of Odisha is increasing year-wise from 2016-17 to 2019-20. Further,

it is indicated that Scheduled Tribe category students have the highest dropout rate compared to that of other categories of students. The graph also shows that the dropout rate is the highest, particularly in ST boys' followed by other categories compared to girl students.

Table 4.16: Overall achievements in Class X

Categories	2017-18 N (%)	2018-19 N (%)	2019-20 N (%)	Overall Results N (%)
Total Boys Appeared	1578	1305	1224	4107(100)
Total Girls Appeared	1113	1001	887	3001(100)
Total Boys Pass	753(47.7)	682(52.26)	741(60.5)	2176(52.98)
Total Girls Pass	618(55.5)	609(60.83)	518(58.3)	1745(58.14)
Total Boys Failed	620(39.2)	612(46.8)	483(39.4)	1715(41.75)
Total Girls Failed	495(44.4)	382(38.16)	369(41.6)	1246(41.51)

*N is the number of total boys/girls appeared

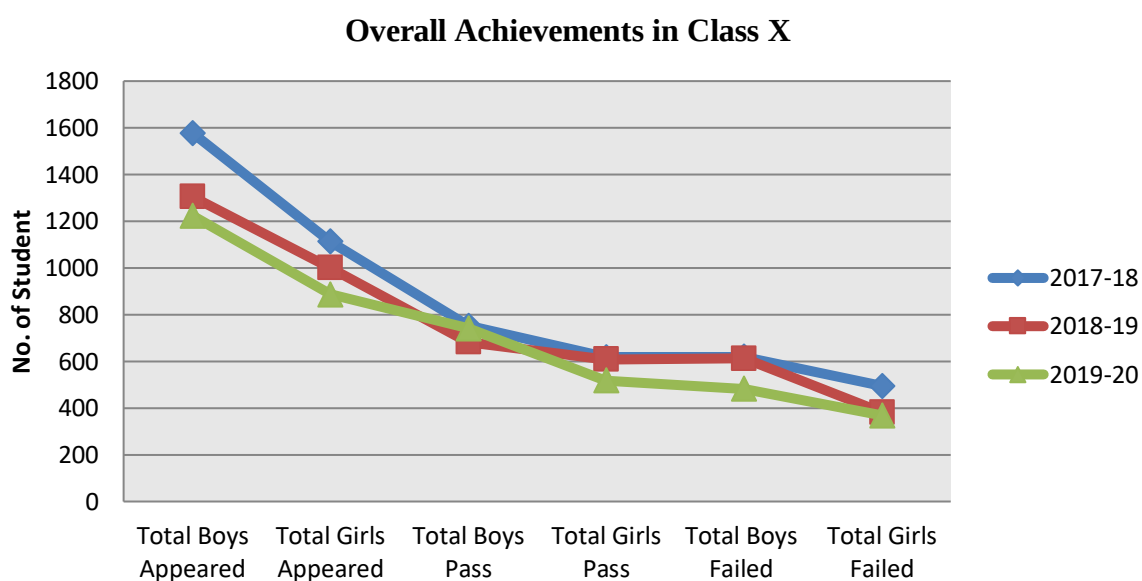


Figure 4.11 Overall Achievements in Class X

In figure 4.11, it is shown that class X achievement result decreases if we compare it with the previous year, i.e., 2017-18 and 2018-19 academic years. Further, it indicates that the achievement rate of girls is good compared to boys in 2017-18 (55.5%) and 2018-19 (60.8%). However, in the year 2019-20, boys have the highest, i.e., 60.5%, as compared to girls, i.e., 58.3%. So it can be concluded that the overall results of the last three years indicated that the pass rate of girls' students is slightly high, i.e., 5.6% compared to boys' counterpart. However, the overall failure rate of both boys and girls is the same.

Table No. 4.17: Special provision for Girls' SC, ST, and CWSN Students

SI No.	Facilities	Responses N (%)	
		Yes	No
1	School adhere to Inclusive Education for CWSN	2(4)	48(96)
2	Special Provision for Girls: Scholarship	50(100)	-
	Cycles	50(100)	-
	Free Textbooks	50(100)	-
	Counseling and guidance	48(96)	2(4)
3	Special provision for SC, ST, Minorities: Scholarship	50(100)	-
	Cycles	50(100)	-
	Free textbooks	50(100)	-
	Counseling and guidance	28(56)	22(44)

It is found from the above table 4.17 that 96% of secondary schools don't have an appropriate Inclusive atmosphere for Children with Special Need (CWSN) students. The same table also indicated that 100% of secondary schools have special provisions for Girls, SCs, STs, and Minorities in terms of Scholarships, Cycles, and Free Textbooks. Above all, 96% of secondary schools have special provisions for girls in terms of counseling and guidance facilities. However, in the case of SCs, STs, and Minorities, only 56% of facilities were available. So it comes to an end that the majority (96%) of secondary schools don't have to adhere to Inclusive Education for CWSN in appointing special teacher educators and related learning environments. Further, it is concluded that most (100%) secondary schools have special provisions for Girls, SCs, STs, and Minorities regarding Scholarships, Cycles, and Free Textbooks.

Table 4.18: Measures undertaken to address the educational issues of children belonging to SC, ST, Minorities, Girls and CWSN

SI No.	Measures	SCs N (%)	STs N (%)	Minorities N (%)	Girls N (%)
1	Parents' awareness through SMDC meetings & personal consultation with parents and counselling to the Student.	29(58)	29(58)	29(58)	29(58)
2	Build the proper network with primary school HM and maintain proper relationship with the	4(8)	4(8)	4(8)	4(8)

	nearest school where most students will attain his next schooling. Developing a blue print for availing schooling for students. So the first stage is Consult with primary schools head masters and then consult with nearest secondary school Head Master for admitting to the students those who nearest with this school as on priority basis.				
3	By phone call to the parents regarding their student absenteeism & academic performance	1(2)	1(2)	1(2)	1(2)
4	Door to Door visit and meeting with parents	12(24)	11(22)	11(22)	11(22)
5	Letter to Parents regarding school absent and awareness create among students towards importance of education	1(2)	1(2)	1(2)	1(2)
6	Financial and motivational guidance from teachers	1(2)	1(2)	1(2)	1(2)
7	Through providing food, hostel facilities and good teaching atmosphere	1(2)	2(4)	2(4)	2(4)
8	Not taking any initiatives	1(2)	1(2)	1(2)	1(2)

It is evident from the above table 4.18 that 58% of secondary schools have taken measures, i.e., increasing awareness among parents through SMDC meetings as well as a personal consultation with parents and counseling to the students to address the educational issues of children belonging to SCs, STs, Minorities, and Girls, followed with 20% & above secondary schools teachers visited door to door and meeting with parents. Further, it is indicated that 8% of secondary schools measure undertaking in terms of proper consultation with the nearest primary school Head Master and developing an appropriate blueprint for avail schooling accordingly. The same table also indicated that 2% and above of secondary schools have measures through phone calls and letters to parents regarding students' absenteeism and low academic performances in schools, teachers' personal financial and motivational guidance, and providing mid-day meals, hostel facilities, and providing an effective learning environment. Another 2% of secondary schools don't have any measures to address the educational issues of children belonging to SCs, STs, Minorities, and Girls.

Table 4.19: Special measures undertaken to address the following issues of girls

Sl No.	Measures	Early Child Marriage	Child Labour
1	Parents' awareness through SMDC meetings as well personal consultations. Counselling to the students & consultation with local and higher authority regarding matters	36(72)	36(72)
2	Awareness among parents through campaign & consult with local and higher authority	7(14)	7(14)
3	Financial and motivational guidance from teachers.	1(2)	1(2)
4	FIR against students parents and consult with the local & higher authority	1(2)	1(2)
5	Primarily consult with parents regarding this matter & in case of emergency teachers directly contact with child help line	1(2)	1(2)
6	Not taking any initiatives	4(8)	4(8)

It is evident from the above table 4.19 that 72% of secondary schools have taken measures, i.e., increasing awareness among parents through SMDC meetings as well as a personal consultation with parents and local higher authorities and counseling to the students to address the educational issues of girls, particularly in case of early child marriage and child labor, followed with 14% secondary schools teachers create awareness through the campaign. The same table also indicated that 2% of secondary schools have measures undertaken by financial and motivational guidance from teachers, FIR against students' parents, and direct contact with child helpline to avoid early child marriage and child labor. Another 8% of secondary schools don't have any undertaking measures to address the educational issues of girls.

Research Questions 3: *What are the classroom transactions and assessment techniques used for learning?*

Research Objectives 3: *To find out classroom transaction process in tribal areas with reference to teacher performance.*

4.4 Classroom Transaction Process

4.20: Classroom Transaction Processes with Reference to Teachers Qualification

Table No. 4.20 Introducing lesson in class

Sl. No	Aspects / Criteria	Qualification	Average N (%)	Above Average N (%)	Excellent N (%)
1	Looks class to settle before teaching	Degree & B.Ed.	3(5.4)	23(41.8)	12(21.8)
		PG & B.Ed.	-	6(10.9)	11(20)
		Total	3(5.4)	29(52.7)	23(41.8)
2	Test previous knowledge before teaching	Degree & B.Ed.	10(18.1)	16(29.09)	12(21.8)
		PG & B.Ed.	1(1.8)	5(9.09)	11(20)
		Total	11(20)	21(38.1)	23(41.8)
3	Engage students to create interest towards topic	Degree & B.Ed.	10(18.1)	18(32.7)	9(16.3)
		PG & B.Ed.	3(5.4)	5(9.09)	9(16.3)
		Total	13(23.6)	23(41.8)	18(32.7)
4	Creates readiness among learners(Icebreaking / Warm up Activity)	Degree & B.Ed.	8(14.5)	16(29.09)	13(23.6)
		PG & B.Ed.	1(1.8)	9(16.3)	7(12.7)
		Total	9(16.3)	25(45.4)	20(36.3)
5	Uses appropriate strategy for introducing the topic	Degree & B.Ed.	8(14.5)	21(38.1)	9(16.3)
		PG & B.Ed.	5(9.09)	5(9.09)	7(12.7)
		Total	13(23.6)	26(47.2)	16(29.09)
6	States the topic before teaching	Degree & B.Ed.	2(3.6)	14(25.4)	21(38.1)
		PG & B.Ed.	1(1.8)	6(10.9)	10(18.1)
		Total	3(5.4)	20(36.3)	31(56.3)

*N is the total number of classes observed by researcher i.e., 55 classes

It is observed from Table 4.20 that 52.8% of above-average teachers look to class to settle before teaching, and 41.8% of teachers test previous knowledge before teaching very often. Further, 41.8 % to 47.2% of above-average teachers engage students to create interest in the topic, create readiness among learners through Icebreaking/ Warm-up activity and use appropriate strategies for introducing the topic. The same table also indicated that 56.3% of teachers frequently state the topic before teaching. So it can be interpreted that an above-average number of teachers used the criteria often & teachers with high qualifications used them excellently more frequently than teachers with only degrees with B.Ed. qualifications.

Table 4.21: Presenting the lesson in class

Sl. No	Aspects / Criteria	Qualification	Average N (%)	Above Average N (%)	Excellent N (%)
1	Teaches basing on what students already know	Degree & B.Ed.	4(7.2)	20(36.3)	14(25.4)
		PG & B.Ed.	-	9(16.3)	8(14.5)
		Total	4(7.2)	29(52.7)	22(40)
2	Posses Mastery Over Content Knowledge	Degree & B.Ed.	5(9.1)	14(25.4)	19(34.5)
		PG & B.Ed.	-	6(10.9)	11(20)
		Total	5(9.1)	20(36.3)	30(54.5)
3	Presents Information in a Clear and Organized Manner	Degree & B.Ed	7(12.7)	14(25.4)	16(29.1)
		PG & B.Ed	1(1.8)	4(7.2)	12(21.8)
		Total	8(14.5)	18(32.7)	28(50.9)
4	Explains the Simple Concepts With Familiar Language	Degree & B.Ed	2(3.6)	18(32.7)	18(32.7)
		PG & B.Ed	1(1.8)	4(7.2)	12(21.8)
		Total	3(5.4)	22(40)	30(54.5)
5	Presents in an Audible Voice to Every Learner	Degree & B.Ed	-	7(12.7)	31(56.3)
		PG & B.Ed	-	3(5.4)	14(25.4)
		Total	-	10(18.1)	45(81.8)
6	Illustrates Concepts With Variety of Examples From the Context	Degree & B.Ed	5(9.1)	20(36.3)	11(20)
		PG & B.Ed	1(1.8)	8(14.5)	8(14.5)
		Total	6(10.9)	28(50.9)	19(34.5)

**N is the total number of classes observed by researcher i.e., 55 classes*

It is found in table 4.21 that 52.7% of above-average teachers teach based on what students already know. Further, 50.9 % to 81.8% of teachers are excellent in having mastery of content knowledge (54.5), Presents Information in a Clear and Organized Manner (50.9), Presents in an Audible Voice to Every Learner (81.8%). The same table also indicated that 50.9% of average teachers Illustrates Concepts with a Variety of Examples from the context. So it can be interpreted that the majority (81.8%) of teachers are excellent in presenting their lesson in an audible voice, effectively reaching every learner in class.

Table 4.22: Questioning and reinforcement

Sl. No	Aspects / Criteria	Qualification	Average N (%)	Above Average N (%)	Excellent (N& %)
1	Prompts Learners for Enquiry	Degree & B.Ed	8(14.5)	25(45.4)	5(9.1)
		PG & B.Ed	2(3.6)	7(12.7)	8(14.5)
		Total	10(18.1)	22(40)	13(23.6)
2	Asks Questions With Precision and Clarity	Degree & B.Ed	6(10.9)	20(36.3)	12(21.8)
		PG & B.Ed	1(1.8)	8(14.5)	8(14.5)
		Total	7(12.7)	28(50.9)	20(36.3)
3	Distributes Questions Throughout Whole Class	Degree & B.Ed	14(25.4)	13(23.6)	6(10.9)
		PG & B.Ed	3(5.4)	11(20)	2(3.6)
		Total	17(30.9)	24(43.6)	8(14.5)
4	Allows Reasonable Time to Students for Answering the Question	Degree & B.Ed	14(25.4)	13(23.6)	8(14.5)
		PG & B.Ed	8(14.5)	6(10.9)	3(5.4)
		Total	22(40)	19(34.5)	11(20)
5	Gives Appropriate Reinforcement.	Degree & B.Ed	12(21.8)	19(34.5)	3(5.4)
		PG & B.Ed	4(7.2)	10(18.1)	3(5.4)
		Total	16(29.1)	29(52.7)	6(10.9)

**N is the total number of classes observed by researcher i.e., 55 classes*

It is revealed from table 4.22 that 40% to 52.7% of above-average teachers prompt learners to inquire, ask questions with precision and clarity during classes, distribute questions throughout the whole class, and give appropriate reinforcement. Further, only 40% of average teachers allow reasonable time for students to answer the question. So it can be concluded that teachers with above-average used the following criteria mostly, i.e., prompt learners for inquiry (40%), asks questions with precision and clarity during classes (50.9%), distributes questions throughout the whole class (43.6%), gave appropriate reinforcement (52.7%).

Table 4.23: Use of teaching learning materials

Sl. No	Aspects / Criteria	Qualification	Average N (%)	Above Average N (%)	Excellent N (%)
1	Writes Legible in the Blackboard	Degree & B.Ed.	2(3.6)	25(45.4)	11(20)
		PG & B.Ed.	1(1.8)	6(10.9)	10(18.1)
		Total	3(5.4)	31(56.3)	21(38.1)
2	Uses Different Activities (Listening/Reading/Doing) in Class	Degree & B.Ed.	16(29.1)	11(20)	10(18.1)
		PG & B.Ed.	3(5.4)	7(12.7)	5(9.1)
		Total	19(34.5)	18(32.7)	15(27.2)
3	Uses Appropriate Teaching Learning Method	Degree & B.Ed.	6(10.9)	24(43.6)	7(12.7)
		PG & B.Ed.	2(3.6)	9(16.3)	6(10.9)
		Total	8(14.5)	33(60)	13(23.6)
4	Uses Locally Available Things as Teaching Learning Materials	Degree & B.Ed.	5(9.1)	30(54.5)	2(3.6)
		PG & B.Ed.	1(1.8)	12(21.8)	4(7.2)
		Total	6(10.9)	42(76.3)	6(10.9)
5	Gives examples from real life situations	Degree & B.Ed.	10(18.1)	14(25.4)	12(21.8)
		PG & B.Ed.	3(5.4)	4(7.2)	10(18.1)
		Total	13(23.6)	18(32.7)	22(40)

**N is the total number of classes observed by researcher i.e., 55 classes*

Table 4.23 explains that 56.3% to 76.3% of above-average teachers Write Legible in the Blackboard (56.3%), Use Appropriate Teaching-Learning methods (60%), and Use Locally Available Things as Teaching Learning Materials (76.3%). Further, only 34.5% of average teachers Use Different Activities (Listening/Reading/Doing) in Class & 40% of teachers are excellent at giving examples from real-life situations. So it can be concluded that above-average of teachers used the following criteria mostly, i.e., Writes Legible in the Blackboard (56.3%), Uses Appropriate Teaching-Learning Method (60%), Uses Locally Available Things as Teaching Learning Materials (76.3%).

Table 4.24: Relating to interaction with students

Sl. No	Aspects / Criteria	Qualification	Average N (%)	Above Average N (%)	Excellent N (%)
1	Interacts with Each Student	Degree & B.Ed	9(16.3)	17(30.9)	11(20)
		PG & B.Ed	1(1.8)	7(12.7)	9(16.3)
		Total	10(18.1)	24(43.6)	20(36.3)
2	Maintains Order in the Class	Degree & B.Ed	1(1.8)	3(5.4)	34(61.8)
		PG & B.Ed	-	1(1.8)	16(29.1)
		Total	1(1.8)	4(7.2)	50(90.1)
3	Offer Personal Support to Learner at the Time of Difficulty During Class Activity	Degree & B.Ed	8(14.5)	19(34.5)	10(18.1)
		PG & B.Ed	2(3.6)	9(16.3)	6(10.9)
		Total	10(18.1)	28(50.9)	16(29.1)
4	Allows Learners to Interact With Each Other	Degree & B.Ed	20(36.3)	13(23.6)	3(5.4)
		PG & B.Ed	6(10.9)	10(18.1)	1(1.8)
		Total	26(47.2)	23(41.8)	4(7.2)
5	Activates Learners During the Class	Degree & B.Ed	7(12.7)	21(38.1)	9(16.3)
		PG & B.Ed	2(3.6)	9(16.3)	5(9.1)
		Total	9(16.3)	30(54.5)	14(25.4)
6	Encourage Pair Work/ Group Work and Ensures Peer Learning	Degree & B.Ed	3(5.4)	12(21.8)	3(5.4)
		PG & B.Ed	2(3.6)	3(5.4)	6(10.9)
		Total	5(9.1)	15(27.2)	9(16.3)

**N is the total number of classes observed by researcher i.e., 55 classes*

It is indicated from the table 4.24 that 43% of above average teachers interact with all most all students during classroom interaction, 90.1% of teachers excellent in maintaining order in the class, 50.9% of above average teachers offer personal support to learners at the time of difficulty during class activity, 47.2% of average teachers allows learners to interact with one another, 54.5% of above average teachers activate learners during the class, and only 27.2% of above average teachers encourage pair work/ group work and ensure peer learning. So it can be concluded teachers less encourages towards pair work/ group work and ensuring peer learning. The majority of teachers (90.1%) excellent in maintaining order in the class for discipline.

Table 4.25: Relating to teacher reflections and use of ICT

Sl. No	Aspects / Criteria	Qualification	Average N (%)	Above Average N (%)	Excellent N (%)
1	Teaches How to Learn a Topic	Degree & B.Ed.	8(14.5)	19(34.5)	10(18.1)
		PG & B.Ed.	2(3.6)	7(12.7)	8(14.5)
		Total	10(18.1)	26(47.2)	18(32.7)
2	Suggests other Learning Materials for References	Degree & B.Ed.	13(23.6)	13(23.6)	4(7.2)
		PG & B.Ed.	2(3.6)	8(14.5)	4(7.2)
		Total	15(27.2)	21(38.1)	8(14.5)
3	Uses ICT in Classroom	Degree & B.Ed.	1(1.8)	3(5.4)	-
		PG & B.Ed.	2(3.6)	7(12.7)	2(3.6)
		Total	3(5.4)	10(18.1)	2(3.6)
4	Encourages Learner For Asking Questions	Degree & B.Ed.	8(14.5)	25(45.4)	3(5.4)
		PG & B.Ed.	4(7.2)	9(16.3)	4(7.2)
		Total	12(21.8)	34(61.8)	7(12.7)
5	Encourage Learners For Self Reflection	Degree & B.Ed.	16(29.1)	17(30.9)	4(7.2)
		PG & B.Ed.	5(9.1)	8(14.5)	4(7.2)
		Total	21(38.1)	25(45.4)	8(14.5)
6	Encourages Divergent Thinking	Degree & B.Ed.	14(25.4)	19(34.5)	1(1.8)
		PG & B.Ed.	4(7.2)	10(18.1)	2(3.6)
		Total	18(32.7)	29(52.7)	3(5.4)
7	Focuses on the Process of Learning in the Class	Degree & B.Ed.	7(12.7)	20(36.3)	10(18.1)
		PG & B.Ed.	2(3.6)	6(10.9)	9(16.3)
		Total	9(16.3)	26(47.2)	19(34.5)
8	Relates the Subject With Other School Subjects	Degree & B.Ed.	13(23.6)	19(34.5)	2(3.6)
		PG & B.Ed.	5(9.1)	10(18.1)	1(1.8)
		Total	18(32.7)	29(52.7)	3(5.4)
9	Summarizes at the end of the Class	Degree & B.Ed.	5(9.1)	22(40)	9(16.3)
		PG & B.Ed.	1(1.8)	7(12.7)	8(14.5)
		Total	6(10.9)	29(52.7)	17(30.9)

*N is the total number of classes observed by researcher i.e., 55 classes

It is indicated from table 4.25 that above-average teachers Teach How to Learn a Topic and Focus on the Process of learning in the class (47.2%), Suggest other learning materials for References (38.1%), Use ICT in classroom (18.1%), Encourage learners for asking questions (61.8%), Encourage learners for self-reflection (45.4%), Encourages divergent thinking and

summarizes at the end of the Class and relates the subject with other school subjects (52.7%). So it can be concluded that only 18.1% of teachers used ICT during class activities & majority (61.8%) of the teachers prefer to encourage learners to ask questions during the teaching-learning process.

Table 4.26: Assessing learning in class

Sl. No	Aspects / Criteria	Qualification	Average N (%)	Above Average N (%)	Excellent N (%)
1	Assess Learners Understanding Throughout The Class	Degree & B.Ed.	9(16.3)	14(25.4)	14(25.4)
		PG & B.Ed.	1(1.8)	12(21.8)	4(7.2)
		Total	10(18.1)	26(47.2)	18(32.7)
2	Asks Questions As Per Objectives Of Lesson	Degree & B.Ed.	4(7.2)	20(36.3)	14(25.4)
		PG & B.Ed.	1(1.8)	7(12.7)	9(16.3)
		Total	5(9.1)	27(49.1)	23(41.8)
3	Gives Importance On Learners Work In Assessment	Degree & B.Ed.	8(14.5)	20(36.3)	9(16.3)
		PG & B.Ed.	5(9.1)	4(7.2)	8(14.5)
		Total	13(23.6)	24(43.6)	17(30.9)
4	Helps Learner in Self Assessment	Degree & B.Ed.	15(27.2)	14(25.4)	6(10.9)
		PG & B.Ed.	3(5.4)	7(12.7)	6(10.9)
		Total	18(32.7)	21(38.1)	12(21.8)
5	Provides Home Assignments That Requires Enquiry	Degree & B.Ed.	8(14.5)	24(43.6)	5(9.1)
		PG & B.Ed.	1(1.8)	13(23.6)	3(5.4)
		Total	9(16.3)	37(67.2)	8(14.5)
6	Provides feedback	Degree & B.Ed.	12(21.8)	17(30.9)	2(3.6)
		PG & B.Ed.	4(7.2)	8(14.5)	3(5.4)
		Total	16(29.1)	25(45.4)	5(9.1)

**N is the total number of classes observed by researcher i.e., 55 classes*

It is observed from the table 4.26 that above average teachers' assess learners understanding throughout the class (47.2%), Ask questions as per objectives of lesson (49.1%), Gives importance on learners work in assessment (43.6%), Help learner in self-assessment (38.1%), Provide home assignments that requires enquiry (67.2%), Provide feedback (45.4%). So it can be concluded that majority (67.2%) above average teachers provide home assignments that requires enquire and 41.8% of teachers excellent in asking questions as per the objectives of the lesson during teaching learning process.

Table 4.27: Personality of teacher

Sl. No	Aspects / Criteria	Qualification	Average N (%)	Above Average N (%)	Excellent N (%)
1	Remains Active Throughout The Class	Degree & B.Ed.	-	5(9.1)	33(60)
		PG & B.Ed.	-	-	17(30.9)
		Total	-	5(9.1)	50(90.9)
2	Dresses Himself/ Herself Properly.	Degree & B.Ed.	-	2(3.6)	35(63.6)
		PG & B.Ed.	-	-	16(29.1)
		Total	-	2(3.6)	51(92.7)
3	Enjoys The Classroom Teaching	Degree & B.Ed.	1(1.8)	15(27.2)	21(38.1)
		PG & B.Ed.	-	3(5.4)	14(25.4)
		Total	1(1.8)	18(32.7)	35(63.6)
4	Remains Empathetic	Degree & B.Ed.	-	7(12.7)	31(56.3)
		PG & B.Ed.	-	-	17(30.9)
		Total	-	7(12.7)	48(87.2)
5	Ensure Democratic Practice In The Classroom	Degree & B.Ed.	4(7.2)	8(14.5)	26(47.2)
		PG & B.Ed.	-	3(5.4)	14(25.4)
		Total	4(7.2)	11(20)	40(72.7)
6	Seeks To Co-Operate Of The Students	Degree & B.Ed.	1(1.8)	9(16.3)	28(50.9)
		PG & B.Ed.	1(1.8)	1(1.8)	15(27.2)
		Total	2(3.6)	10(18.1)	43(78.1)
7	Ensures An Inclusive Classroom Environment	Degree & B.Ed.	6(10.9)	9(16.3)	22(40)
		PG & B.Ed.	1(1.8)	2(3.6)	13(23.6)
		Total	7(12.7)	11(20)	35(63.6)
8	Maintain Flexibility In The Movement	Degree & B.Ed.	4(7.2)	7(12.7)	24(43.6)
		PG & B.Ed.	1(1.8)	2(3.6)	13(23.6)
		Total	5(9.1)	9(16.3)	37(67.2)
9	Over All Personality	Degree & B.Ed.	-	-	38(69.01)
		PG & B.Ed.	-	-	17(30.9)
		Total	-	-	55(100)

*N is the total number of classes observed by researcher i.e., 55 classes

It is revealed from table 4.27 that the overall personalities of the teachers are excellent (100%). 90.9% to 92.7% of teachers are excellent at remaining active throughout the class and dress properly, 87.2% of teachers enjoy the class classroom teaching, 78.1% of teachers try to co-operate with the students', 72.2% of teachers ensure democratic practice in the classroom, 67.2% of teachers maintain flexibility in their movement during teaching-learning process, and 63.6% of teachers enjoy the classroom teaching and ensure an inclusive classroom environment.

Table 4.28: Method of transaction during classroom transaction in details

Sl No.	Transaction Method	Frequently N (%)	Sometimes N (%)	Not at All N (%)
1	Discussion	49(98)	1(2)	-
2	Demonstration	12(24)	36(72)	2(4)
3	Field Visit	-	21(42)	29(58)
4	Group Discussions	7(14)	38(76)	5(10)
5	Peer Learning	8(16)	40(80)	2(4)
6	Panel Discussion	2(4)	29(58)	19(38)
7	Self-Study	11(22)	39(78)	-
8	Guided Study	8(16)	40(80)	2(4)
9	Project Work	4(8)	34(68)	12(24)
10	Brainstorming	5(10)	35(70)	10(20)
11	Assignment	38(76)	12(24)	-

Table 4.28 interpreted that 98% of secondary school teachers frequently used the discussion method and 76% for assessment during their classroom teaching-learning process. Similarly, 58% or above, up to 80% of secondary school teachers sometimes used demonstration, group discussion, peer learning, panel discussion, self-study, guided study, project work, and brainstorming as a transaction method during the teaching-learning process. Further, 58% of secondary school teachers do not apply field study as a transaction method for students' learning. So it can be concluded that the majority (80%) of secondary school teachers sometimes used different transaction methods during their teaching activities, except the field study transaction method.

Table 4.29: Methods of organising curricular activities

Sl No.	Transaction Method	Yes N (%)	No N (%)
1	Group Work	35(70)	15(30)
2	Role Play	49(98)	1(2)
3	Field Visit	21(42)	29(58)
4	Sharing their Experience	48(96)	2(4)
5	Use of TLMs	49(98)	1(2)

6	Innovative Practices	31(62)	19(38)
7	Learner Participation	49(98)	1(2)
8	Teacher Response	49(98)	1(2)
9	Scope for interaction among learners	48(96)	2(4)
10	Monitoring and Supervision	49(98)	1(2)
11	Lesson note and Dairy	49(98)	1(2)

It is found from the above table that 60% or above up to 98% secondary school teachers organising curricular activities such as Group work, Role Play, Sharing their experiences, Use of TLMs, Innovative practices, learner participation, teacher response, Scope for interaction among learners, Monitoring and supervision, and Lesson note and dairy except field visit. So it can be interpreted that majority of secondary school teachers organising different types of curricular activities on regular basis except field visit.

Table 4.30: Extra-curricular activities in the school

Sl No.	Transaction Method	Frequently N (%)	Sometimes N (%)	Not at All N (%)
1	Sports and Games	20(40)	27(54)	3(6)
2	Gardening	6(12)	25(50)	19(38)
3	Yoga	10(20)	29(58)	11(22)
4	Crafts	-	7(14)	43(86)
5	Drama		48(96)	2(50)
6	Debate	-	50(100)	-
7	Creative Literacy Activities	-	49(98)	1(2)
8	Annual Sports	18(36)	22(44)	10(20)
9	Annual Function	18(36)	21(42)	11(22)
10	Song Competition	1(2)	48(96)	1(2)
11	Elocutions	1(2)	44(88)	5(10)

It is observed from Table 4.30 that 50% or above up to 100% of secondary school teachers use different extra-curricular activities such as Sports and Games, Gardening, Yoga, Drama, Debate, Creative literacy activities, and song competitions and Elocutions. Further, it is indicated that 44% of secondary school teachers use Annual Sports, 42% Annual Function.

The same table also shows that the majority (86%) of secondary schools don't have any Craft related extra-curricular activities. So it can be concluded that except Craft related extra-curricular activities, other extra-curricular activities are followed by all most all secondary schools.

Table 4.31: Use of technology/TLM

Sl No.	Tools/Equipments	Availability N (%)		How often used? N (%)		
		Yes	No	Frequently	Sometimes	Not at All
1	LCD Projector	9(18)	41(82)		9(18)	41(82)
2	Overhead Projector	1(2)	49(98)	-	1(2)	49(98)
3	Internet Facility	2(4)	48(96)	1(2)	1(2)	48(96)
4	Television	-	50(100)	-	-	50(100)
5	DVD Player	-	50(100)	-	-	50(100)
6	Tape Recorder	1(2)	49(98)	-	1(2)	49(98)
7	Science Kit	46(92)	4(8)	9(18)	36(72)	5(10)
8	Math Kit	46(92)	4(8)	5(10)	39(78)	6(12)
9	Globe	48(96)	2(4)	9(18)	38(76)	3(6)
10	Maps/Charts	47(94)	3(6)	8(16)	39(78)	3(6)
11	e-Pathshala	4(8)	46(92)	-	4(8)	46(92)
12	Any others (Slide Projector)	1(2)	49(98)	-	1(2)	49(98)

It is indicated from table 4.31 that 80% above up to 100% of secondary schools don't have LCD projectors, Overhead Projector, Internet facilities, Television, DVD players, Tape Recorder, and e-Pathshala. Additionally, it is observed that 92% of schools have Science Kit and Math kit, 96% have Globe, and 94% have Maps/Charts & majorly use them sometimes. So it can be concluded that most secondary schools don't have technological equipment; due to this, access to technology is still a daydream for Odisha secondary schools situated in tribal areas.

Research Questions 4: *What is the over-all performance for promoting quality education in the schools of tribal areas?*

Research Objectives 4: *To make in-depth studies of selected secondary schools to explore quality practices.*

4.5 Overall Performance for Promoting Quality Education

Table 4.32: Training package for teachers: Details of training programmes

SI No.	Name of the Program	Duration	Month/Year	
			2019	2020
1	Samarthya	As per the government rules and regulations	27	38
2	Utkarsha		36	9
3	Nishta		5	-
4	Career Portals		1	-
5	Health & Wellness		8	2
6	Health Ambassador		3	-
7	Gyan Sanjog		1	
8	Ujala		6	1
9	Uthan		5	20
10	Mental Wellbeing			1
11	e-Content Development		12	8
12	Diksha			3
13	No training programs due to block grant school status	2 No of Schools		

It is evident from table 4.32 that in 2019 and 2020, the highest number of training programs attended by the teachers are Samarthya, Utkarsha, Uthan, and e-Content Development. Further, the table indicated that out of 50 secondary schools, only 2 secondary school teachers under block grant status could not attend any training program from both governments and NGOs. So it can be concluded that the majority of secondary school teachers attended training programs organized by the Government and NGOs.

Table 4.32.1: Training programme details

SI No.	Content	Yes N (%)	No N (%)
1	Was the training programme you attended, assessed/ evaluated	48(96)	2(4)
2	Written	-	-
3	Oral	-	-
4	Both Written and Oral	48(96)	2(4)

It is observed from Table 4.32.1 that 96% of secondary school teachers agreed that whatever the training program they attended was under-assessed and evaluated through the process, both written and oral.

Table 4.32.2: Overall rating on training programme

Content	Excellent N (%)	Very Good N (%)	Good N (%)	Average N (%)	Not attended N (%)
Overall Rating on Training Programme by Teachers	3(6)	3(6)	41(82)	1(2)	2(4)

Table 4.32.2 explained that 82% of secondary school teachers rated the overall training program under the good category and 6% in both excellent and very good categories. So it can be interpreted that the majority (82%) of the training program need to add an improved strategy for better rating on training program from good to excellent or very good ones.

Table 4.33: Teacher-pupil relationships

SI No.	Tools/Equipments	Extent of Practices N (%)		
		Frequently	Sometimes	Not at All
1	Establishing cordial relationship	44(88)	5(10)	1(2)
2	Enquire about personal problem	11(22)	37(74)	2(4)
3	Taking extra classes for weak students	4(8)	42(84)	4(8)
4	Health Check Up	36(72)	13(26)	1(2)
5	Parental Care	12(24)	36(72)	2(4)
6	Scholarship to poor but meritorious students	3(6)	3(6)	44(88)
7	Giving scope to pupils to ask questions in the classroom	12(24)	38(76)	-

It is found in table 4.33 that 88% of secondary school teachers agreed that they establish a cordial relationship with students frequently concerning the student health check-up (72%). Further, the table indicated that 74% of teachers sometimes enquire about students' personal

problems, 84% of teachers sometimes take extra classes for weak students/slow learners, 72% of teachers sometimes support like parental care, 76% of teachers sometimes give scope to pupils to ask questions in the classroom. The same table also shows that 88% of teachers do not provide personal scholarships to poor but deserving students. So it comes to an end that the majority (72% above or up to 88%) of teachers are interested in establishing good teachers pupil relations through establishing cordial relationships with students, concerning student health check-ups, enquiring about student personal problems, sometimes taking extra classes for weak students/slow learners, support like parental care, giving scope to pupils to ask questions in the classroom.

Table 4.34: School community relationship

Sl No.	Tools/Equipments	Extent of Practices N (%)		
		Frequently	Sometimes	Not at All
1	Parent teacher meeting	43(86)	6(12)	1(2)
2	Invitation to parents during occasions	34(68)	16(32)	-
3	Involvement of community in school development	4(8)	25(50)	21(42)
4	Community activities of school	8(16)	41(82)	1(2)
5	Organising awareness programme in the community	20(40)	28(56)	2(4)

It is indicated in table 4.34 above that 86% of secondary schools frequently organize parent-teaching meetings, and 68% of schools invite parents on different occasions. Further, the table also shows that 50% of schools sometimes involve the community in school development activities, 56% of schools sometimes organize awareness programs in the community, and 82% of schools sometimes organize community activities. The same table also indicated that 42% of schools do not involve the community in school development. So it can be concluded that the majority of secondary schools are well concerned about the importance of school-community relationships.

Table 4.35: Extension activities (Extra Mural Lectures, Seminars, and Workshops)

Sl. No	Activities	Yes N (%)	No N (%)
1	Does your school organise extra mural lectures by inviting eminent teachers	20(40)	30(60) ↓
2	If yes on which subjects extra mural lectures are arranged: Language Subject	1(2)	
3	Social Studies Subject	4(8)	
4	Science Subject	2(4)	
5	Any others (Subject Concern, Career Concern, Career Counselling, Forest Preservation, Social Awareness, For JOB Perspective, Vocational)	13(26)	
	If ‘No’ Please give reasons	Responded 30(60)	
1	Due to lack of fund, planning and training	24(48)	
2	Due to covid-19 and lack of planning	1(2)	
3	Due to lack of rooms and funding facilities	2(4)	
4	Unavailability of resource person	3(6)	
	Activities	Yes	No
1	School organise seminars and workshops on the current topics of the major subjects	17(34)	33(66)
2	School organise study tours for better learning	15(30)	35(70)

Table 4.35 explained that only 40% of secondary organized extension activities on language subject (2%), social studies subject (8%), science subject (4%), and 26% on any others (Subject concern, career counseling, forest preservation, social awareness, Job perspective especially on vocational perspective). Further, the table indicated that 60% of secondary schools do not organize any extension activities due to lack of funds, planning, and training (48%), due to Covid 19 and lack of planning (2%), lack of rooms and funding facilities (4%) and unavailability of resources person (6%). Similarly, the table also indicated that 34% of secondary schools organize seminars and workshops on the current topics of the major subjects and study tours for better learning. So it can be interpreted that the majority (60%) of

secondary schools cannot organize student extension activities due to a lack of funds, planning, and necessary training.

Table 4.36: Career counselling and placement cell

Sl. No	Activities	Yes N (%)	No N (%)
1	If your school having a career counselling and placement cell for students?	27(54) ↓	23(46)
Sl. No.	If 'Yes' Mention program details	Responded 27(54)	
1	ITI, Pharmacy, Skill Development Training, Banking, Other Employment	20(40)	
2	According to the Students Interest	2(4)	
3	Career Development	5(10)	

It is observed from Table 4.36 that 54% of secondary schools organize career counseling and placement cell for students focusing on particular programs, such as ITI, Pharmacy, Skill Development Training, Banking, and Other Employment (40%), According to the Students Interest (4%), Career Development (10%). So it can be interpreted that mostly 54% of secondary schools have career counseling and placement cell for organizing programs related to future employment and courses (40%).

Table 4.37: School Governance and Management

Sl. No	Activities	Yes N (%)	No N (%)
1	School has a regular Head Master	20(40)	31(60)
2	Availability of SMDC/SMC	50(100)	-
3	SMDC is constituted as per the RMSA/SSA norms	49(98)	1(2)
4	SMDC/SMC holds monthly meetings	43(86)	7(14)
5	Proceedings of meeting are recorded	49(98)	1(2)
6	School Cabinet is constituted in school	37(74)	13(26)
7	Grievance redressal cell is a available	20(40)	30(60)
8	Complaint/Suggestion box available in School	43(86)	7(14)
9	Toll free numbers written prominently on the school wall	49(98)	1(2)
10	Academic calendar is available in school	48(96)	2(4)
11	School Improvement Plan is available in school	46(92)	4(8)
12	School have registers for different activities: Enrolment, Attendance, SMDC Register, and Cash Register.	50(100)	-
13	Biometric attendance done in school	-	50(100)

Table 4.37 indicated that 74% above up to 100% of secondary schools have availability of SMDC/SMC (100%), SMDC is constituted as per the RMSA/SSA norms (98%) with holds monthly meetings (86%) and proceeding of meetings are recorded (98%), schools have school cabinet (74%), complaint/suggestion box (86%), toll-free numbers written prominently on the school wall (98%), academic calendar (96%), school improvement plan (92%), and having register note for different activities such as enrolment, attendance, SMDC register, and cash register (100%). Further, the tale indicates that only 40% of secondary schools have Head Masters or called it adjustment position even in 40% case. 60% of secondary schools don't have grievance redressal cells for students, and 100% of schools don't have Bio-metric attendance. So it can be concluded that most secondary schools may have good governance and management activities, but the majority of secondary schools (60%) don't have a regular Head Master.

Table 4.38: Monitoring/ Supervision of secondary schools by the higher authorities

SI No.	Name of Authorities	Frequency N (%)		
		Frequently	Sometimes	Not at All
1	State Level Authorities	-	24(48)	26(52)
2	District Project Coordinator	2(4)	44(88)	4(8)
3	District Pedagogy Coordinators	-	17(34)	33(66)
4	BRC Coordinators	4(8)	43(8)	3(6)
5	CRC Coordinators	43(86)	5(10)	2(4)
6	School Inspectors	2(4)	47(94)	1(2)
7	Any others	-	4(8)	46(92)

It is found from Table 4.38 that 86% of CRC Coordinators frequently monitor the secondary schools' records through their visit, 88% of District Project Coordinators and 94% of School Inspectors sometimes monitor as well as supervise the schools. So it can be interpreted that other higher authorities such as District Project Coordinators and School Inspectors visited schools occasionally, except CRC Coordinators.

Table 4.39: Major five issues related to school improvement

Sl. No	Major Weakness	M 1 N (%)	M 2 N (%)	M 3 N (%)	M 4 N (%)	M 5 N (%)
1	Lack of basic infrastructure including other facilities such as: cycle stands, hostel facilities, staff quarters, Labs, smart class rooms, library rooms and books, mini stadium, sanitation, Safe drinking water, suitable school buildings, playground, & boundary wall.	29(58)	21(42)	36(72)	26(52)	30(60)
2	Lack of community co-operation and awareness	-	3(6)	8(16)	6(12)	7(14)
3	Lack of teaching & non-teaching staffs including special teachers (for inclusive & language), Head Master Post.	19(38)	19(38)	4(8)	7(14)	4(8)
4	Communication problem from home to school & language problem leads to communication problem between teachers and students. Domestic work leads to students' absenteeism.	2(4)	1(2)	2(4)	5(10)	4(8)
5	Lack of Craft work at school level	-	-	-	-	3(6)
6	Inequality feelings among primary and secondary teachers due their uniform, salary and qualification.	-	1(2)	-	-	1(2)
7	Secondary Students performing not well due to their lack of proper elementary education.	-	-	-	-	1(2)
8	Problems due to deputation of teaching and non-teaching staffs	-	5(10)	-	-	-
9	Lack of research project work	-	-	-	3(6)	-
10	Lack of beautification of school campus	-	-	-	3(6)	-

Table 4.39 explains the five major weaknesses of all fifty secondary schools from five tribal districts of Odisha. The M1 indicated the Major Weakness 1 up to the M 5. It is revealed from the table that the majority (72%) of the secondary schools have problems with lack of basic infrastructure, including other facilities such as cycle stands, hostel facilities, staff quarters, Labs, smart classrooms, library rooms and books, mini stadium, sanitation, safe drinking water, suitable school buildings, playground, & boundary wall. The second major (38%) problem related to the lack of teaching & non-teaching staff, including special teachers (for inclusive & language), Head Master Post. The third and fourth major problems are lack of community cooperation and awareness (16%), communication problems from home to school & language problems leading to understanding problems between teachers and students during the teaching-learning process, and domestic work leading to students' absenteeism (10%). Further, it indicated that secondary schools have other weaknesses such as Problems due to deputation of teaching and non-teaching staffs (10%), lack of Craftwork at the school level (6%), lack of research project work (6%), lack of beautification of school campus (6%), Inequality feelings among primary and secondary teachers due their uniform, salary and qualification and Secondary Students performing not well due to their proper elementary education (2%). So it can be concluded that the majority of the secondary schools have problems with basic infrastructure (72%) and secondly with teaching and non-teaching positions (38%), and the third weaknesses related to lack of community cooperation and awareness (16%).

Table 4.40: Five suggestions related to School Improvement

Sl. No	Suggestions for Quality School	S 1 N (%)	S 2 N (%)	S 3 N (%)	S 4 N (%)	S 5 N (%)
1	Providing basic infrastructure & facilities including hostel facilities for boys and girls in urgent basis, toilets, safe drinking water, playground, repair school buildings including additional classroom buildings and own land for it, boundary wall, sanitation, & staff quarters.	11(22)	22(44)	37(74)	35(70)	23(46)
2	Through appointing the teachers (MLE teachers, lady teachers), School	26(52)	7(14)	5(10)	7(14)	8(16)

	Counsellor, non-teaching & regular Head Master Post					
3	Organising awareness programme for parents towards school education	2(4)	6(12)	3(6)	2(4)	10(20)
4	Providing Mid-day-Meal at secondary school level & transportation facilities for students’.	6(12)	8(16)	5(10)	6(12)	-
5	One school one uniform for all teachers and one staff room and canteen for all.	-	4(8)	-	-	-
6	No need to engaging teachers out-of-schools activities such as (Covid 19 duty in railway station, Cemetery areas, & others)	3(6)	-	-	-	-
7	Strengthening primary education for better secondary school education	1(2)	-	-	-	-

The S1 indicated suggestion 1 up to the S 5. It is found from table 4.40 that the majority (74%) of the secondary schools have suggestions for quality schooling along the lines of providing basic infrastructure, including other facilities such as cycle stands, hostel facilities, staff quarters, Labs, smart classrooms, library rooms and books, mini stadium, sanitation, safe drinking water, suitable school buildings, playground, & boundary wall. The second major (52%) suggestion related to appointing teaching & non-teaching staff, including special teachers (for inclusive & language) Head Master Post. The third and fourth major suggestions related to organizing community awareness programs for parents towards school education (20%) and providing Mid-day-Meal at the secondary school level & transportation facilities for students (16%). Further, the table indicated that secondary schools have other suggestions for improving quality education in tribal areas, such as One school, one uniform for all teachers and one staff room and canteen for all (8%), no need to engage teachers in out-of-schools activities such as (Covid 19 duty in railway station, Cemetery areas, & others) (6%), strengthening primary education for better secondary school education (2%). So it can be concluded that the majority of the secondary schools have suggestions for improving quality education, through providing basic infrastructure (74%), suggestions related to appointing teaching & non-teaching staff (52%), and the third and fourth major suggestions related to organizing community awareness program for parents towards school education (20%), and

through providing Mid-day-Meal at secondary school level & transportation facilities for students (16%).

Research Objectives 4: *To make in-depth studies of selected secondary schools to explore quality practices.*

4.6 Case Studies of Selected Secondary Schools

From the above analysis, the study found the overall status of secondary schools in tribal districts of Odisha. However, understating the emerging concept of quality school education is still unclear due to the general outlook of all schools. So for a better understanding of quality practices at the secondary schools level, the researcher further conducted five secondary schools as a Case from five districts after analyzing three years of 10th final board mark result as achievement results, i.e., from 2017 to 2020, and selected the highest average achievement mark among every ten secondary schools from each district. The details of the achievement performance of five schools from different districts explain individually. The details of the cases schools are

Table 4.41: List of the five secondary schools for case studies

Sl No	School Name	District Name	Block Name	Total Pass Percentage
1	Govt. High School, Bissam Cuttack	Rayagada	Bissam Cuttack	67.29%
2	Govt. High School, Talbelgaon	Kalahandi	Bhawanipatna	80.64%
3	New Govt. Harischandra High School, Tumbrella	Nabarangpur	Papadahandi	81.09%
4	Gopal High School, Ramagiri	Koraput	Boipariguda	50.34%
5	Madhu Sudhan High School	Malkangiri	Podia	75.12%

4.6.1 CASE- 1: Rayagada: Bissam Cuttack Block

Name of the School: Govt. High School Bissam Cuttack, Rayagada

School Telephone No: Not Applicable

School Email ID: Not Applicable

Permanent Head Teacher: Available

Name of the Block: Bissam Cuttack

Name of the District: Rayagada

Type of School: Co-educational

Course Pattern: Board of Secondary Education (BSE)

U-DISE Code of School: 21270103201

Class Available: I-X

Sections in Classes: IX: 2/122 X: 2/153

Maximum Distance: More than 5kms



Photo 4.4: School Main Entrance



Photo 4.5: School Environment

Govt. High School Bissam Cuttack, Rayagada, has been rendering about 63 years of service in providing education to its locality, especially Dongria Kondh tribes. It was established in 1958 by a private management committee and taken over by the Government of Odisha under the School and Mass Education in 1962. Now it has occupied a place in the list of Govt. High

School, Bissam Cuttack, Rayagada. It is a co-educational type of secondary school from class I to X, having a total of 4 classrooms for class IX with 122 students strength and class X with 153 students respectively. It is indicated that the school is facing a lack of classrooms—however, the Pupil-Teacher Ratio (PTR) is 31:1, which follows the government norm, i.e., 40:1.

Different Quality Aspects

Table 4.42: Availability of teaching and non-teaching staffs

Sl No	Current Position	Educational Qualification	Subject Teaching	Experience in Years
1	Head Master	B.Sc., B.Ed.	Science (CBZ)	33
2	Senior Teacher	PG & B.Ed.	Social Sciences	21
3	Senior Teacher	B.A., B.Ed.	Social Sciences	27
4	Senior Teacher	B.Sc., B.Ed.	Science (PCM)	20
5	Teacher	B.A., B.Ed.	Social Sciences	11
6	Teacher	PG & B.Ed.	Science (CBZ)	8
7	Teacher	Degree with CT	Language	15
8	Teacher	B.A., B.P.Ed.	PET	14
9	Teacher	PG & B.Ed.	Language	8
Except this there are two (two) Vocational teachers, along with three (3) non-teaching staffs (one (1) clerk, and two (2) peons are available in school.				

It is observed from table 4.42 that schools have a good number of teaching and non-teaching staff, from which four (4) teachers have twenty (20) or more than that teaching experience, including two (2) vocational teachers temporarily. So it can be concluded that schools have a

good number of teachers and non-teaching staff as per the student ratio and non-teaching staff.

Table 4.43: Details about school arrangement

Sl. No.	Dimensions	Availability		If Yes,				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1	Classrooms	Yes	-	-	-	Yes	-	-
2	HM/Principal Room	Yes	-	-	-	Yes	-	-
3	Office Room	Yes	-	-	-	Yes	-	-
4	Library	-	No	-	-	-	-	-
5	Reading room	-	No	-	-	-	-	-
6	Labs	Yes	-	-	-	Yes	-	-
7	Play Ground	-	No	-	-	-	-	-
8	Staff Common Room	Yes	-	-	-	Yes	-	-
9	Students Hostel	Yes	-	-	-	Yes	-	-
10	Staff Quarters	-	No	-	-	-	-	-
11	Ramp and Railing for inclusive environment	-	No	-	-	-	-	-
12	Computer room	Yes	-	-	-	Yes	-	-
13	Separate Toilet blocks for boys and girls	Yes	-	-	-	-	Yes	-

It is revealed from table 4.43 that most of the schools' arrangements, i.e., Classrooms, HM Room, Office Room, Labs, Staff Common room, Students' Hostel, Computer room and separate toilet for students available but the condition of those arrangements under manageable and poor. However, most necessary arrangements such as Library, Reading

Room, Play Ground, Staff quarters, Ramps, and Railing for an inclusive environment are still unavailable.

Table 4.43.1: Details about the secondary schools arrangement

Sl No.	Dimensions	Availability		If Yes,				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1	Separate Toilet for teachers	-	No	-	-	-	-	-
2	Separate toilet for female teachers	-	No	-	-	-	-	-
3	Drinking Water Facility	Yes	-	-	-	-	Yes	-
4	Resource Room	-	No	-	-	-	-	-
5	Auditorium/ Multi Purpose Hall	-	No	-	-	-	-	-
6	Medical Sick Room	-	No	-	-	-	-	-
7	Boundary Wall	Yes	-	-	-	-	Yes	-
8	Kitchen Shed	Yes	-	-	-	Yes	-	-
9	Art/Craft/Culture room	-	No	-	-	-	-	-
10	Girls' Hostel	-	No	-	-	-	-	-
11	Boys' Hostel (Under Construction)	Yes	-	-	-	Yes	-	-
12	Garden	-	No	-	-	-	-	-

Table 4.43.1 indicated that most school arrangements are unavailable such as separate toilets for teachers, especially female teachers, resource room, auditorium/multipurpose hall, medical sick room, art/craft/culture, girls' hostel, and garden. However, whatever arrangements are available, it's come under poor and manageable conditions, such as a drinking water facility, boundary wall, kitchen shed, and boys hostel, which is under construction.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: *There are no such facilities from the government side, but as a School Head, I am focusing more on classroom transactions and course completion on time. We have to elaborate the course in a creative format. As a human being, I have to empathize with my colleagues & as a Head of the school as always concerned about it. We have to understand the teachers' perspectives first & their problems.*

Responses from Teachers: *School has basic facilities for students and teachers. However, in tribal areas accessing school is difficult due to poor communication. But except for training for the teachers, other facilities are not available for teachers such as staff quarters, etc. Response from other teachers': We don't have any academic facilities at this school. We are here to teach students. Except this, we have good academic co-operation with Head Masters and other teachers. This school doesn't have staff quarters and separate toilets for female teachers.*

Response from FGDs: *Yes, in our school we have good seating facilities in the classroom, discipline, cleanliness of blackboard, well grouping of students.*

Response from Parents: *All types of basic facilities provided by the school such as good classroom with proper seating arrangement, computer labs, proper light, ventilation in class, etc. However, there are many problems related to basic facilities such as safe drinking water facilities, hostel facilities for girls' students', staff quarters, and TLMs corner in school.*

Table 4.44: Curriculum components & facilities

Sl No.	Curricular Inputs	Yes/No
1	Library Books	Yes
2	Science Lab	Yes
3	Science Equipment	Yes
4	Computer Lab	Yes
5	e-Pathshala Accessibility	Yes

Table 4.44 explained that most of the curriculum components and facilities are available in schools, such as Library books, Science lab, and equipment, and computer lab.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: In my school, we are trying to provide locally available teaching-learning materials based on low cost and affordability. Besides this, we have well-equipped library books, labs, and related equipment in our school.

Response from Teachers’: In our school, we have a good number of curricular inputs such as library books, a Science Lab with equipment, a Computer Lab, and accessing e-Pathsala accessibility for students as well as teachers too.

Response from FGD: No use of ICT during the teaching in general classes except IT classes; Except, charts, maps, globes, and science kits, teachers did not use other teaching-learning materials.

Response from Parents: All types of basic facilities provided by the school include good classrooms, computer labs, etc.

Table 4.44.1: Status of secondary schools: Under different facilities

Sl No.	Facilities	Responses
		Yes/No
1	Availability of Sanitizer and Mask	Yes
2	Availability of Safe Drinking Water in School	No
	Source of Drinking Water: Tap Water	No
	Hand Pump	Yes
	Any others (Filter etc.)	No
3	Availability of Electricity in School	Yes
4	Availability of Fans in Classrooms	Yes
5	Availability of Playground in School Premises	No
6	Availability of Locker facility in School	No

It is observed from table 4.44.1 that schools don’t have safe drinking water and the source of drinking water is a hand pump. Schools don’t have locker facilities and playgrounds on school premises. However, the school has electricity, fan, sanitizer, and mask facilities.

Table 4.45: Classroom environment

Sl. No.	Dimensions	Availability		If yes...				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1	Suitable size of Classrooms	Yes	-	-	-	Yes	-	-
2	Seating arrangement (Desk/ Chair-table etc.)	Yes	-	-	-	Yes	-	-
3	Space for group work	Yes	-	-	-	-	Yes	-
4	Black board	Yes	-	-	-	Yes	-	-
5	White board	-	No	-	-	-	-	-
6	Class room colour and Decoration	-	No	-	-	-	-	-
7	Electricity with fan and Light	Yes	-	-	-	Yes	-	-
8	Ventilation	Yes	-	-	-	Yes	-	-
9	General Cleanliness	Yes	-	Yes	-	-	-	-
10	TLM corner	-	No	-	-	-	-	-

It is indicated from table 4.45 that most of the dimensions for the classroom environment of the school are available and under manageable conditions except general cleanliness is excellent condition, others such as Suitable size of Classrooms, Seating arrangement (Desk/ Chair-table, etc.), Space for group work, Blackboard, Electricity with fan and Light, Ventilation. However, only TLM corner is not available in school.

Interviews and FGD Responses from Head Masters, Teachers, Students and Parents

Response from HM: Before entering a class as a teacher, I have to understand the classroom situation first. Such as seating arrangement, whether they have faced any difficulty with this. Whether the blackboard is visible, I have arranged the classroom seating arrangement as a teacher.

We are providing audio-visual aids for proper understanding of students so that students can easily understand the lesson. In my school, we follow experience-based teaching-learning activities. For example: Preparing Science Project. Secondly, evaluation and the evaluation process are the core concern of understanding the students' achievement. We may realize how much a student can grasp the lesson. So for that, we have to prepare our class and method of teaching as per the students' interests. As a teacher, we have to understand tribal language first to play a major role in understanding tribal students' interest in its learning areas.

Response from Teachers’: School provides basic facilities such as good classroom with proper seating arrangement, computer labs, proper light, and ventilation in class, etc.

Response from FGD: In our school we have good seating facilities in the classroom, discipline, cleanliness of blackboard, grouping of students.

Response from Parents: All types of basic facilities are provided by the school such as good classroom with proper seating arrangement, computer labs, proper light, and ventilation are there in class, etc.

Table 4.46: Curriculum components used during classroom transaction

Sl No.	Curricular Inputs	Yes/No
1	Blackboard related components	Yes
2	Text based Materials	Yes
3	Audio/Video based Materials	Yes
4	Image/Graphic based Materials	No
5	ICT Instruments	Yes
6	Locally available TLM	Yes

It is evident from the above table 4.46 that most of the curriculum components, such as Blackboard-related components, text-based materials, audio/video-based materials, ICT instruments, and locally available TLM are used during classroom transactions, except image/Graphic based Materials.

Interviews and FGD Responses from Head Masters, Teachers, Students and Parents

Response from HM: Yes, our schools have many curriculum components that our teachers use during classroom transactions, such as Blackboard related components, text-based materials, audio/video-based materials, and ICT instruments.

Response from Teachers’: We used all curriculum components during our classroom teachings, such as blackboard-related components, whiteboard-related components, text-based materials, audio/video-based materials, ICT instruments, and locally available TLMs.

Response from FGD: No use of ICT during the teaching in general classes except IT classes; Except, charts, maps, globes, and science kits, teachers did not use other teaching-learning materials.

Response from Parents: All types of basic facilities provided by the school include good classrooms, computer labs, etc.

Table 4.47: Method of transaction during classroom transaction

Sl No.	Transaction Method	Frequently	Sometimes	Not at All
1	Discussion	Yes	-	-
2	Demonstration	Yes	-	-
3	Field Visit	-	-	Yes
4	Group Discussions	-	Yes	-
5	Peer Learning	-	Yes	-
6	Panel Discussion	-	-	Yes
7	Self-Study	-	Yes	-
8	Guided Study	-	Yes	-
9	Project Work	Yes	-	-
10	Brainstorming	-	Yes	-
11	Assignment	Yes	-	-

It is observed from Table 4.47 that most of the methods of the transaction are sometimes used during classroom activities such as Group Discussion, Peer Learning, Self-study, Guided Study, and Brainstorming. Further, the table explained that Discussion, Demonstration, Project Work, and Assignments are the most frequently used method during classroom transactions.

Interviews and FGDs of Head Masters, Teachers, and Students

Response from HM: Basically, many methods of teaching have followed by our school teacher, i.e., experimentation, discussion, recitations, and demonstration method (particularly in a science subject) for better understanding of a lesson. In my school, we change the technique if we feel that

students cannot understand the lesson.

Response from Teacher 1: I am a science teacher, so I usually use discussion and demonstration methods during classroom transactions. Further, teachers also used co-curricular activities such as science project work, assignments, and scope for interaction among learners during a teaching in the classroom.

Response from Teacher 2: I follow 5 'E' approaches during my classroom teaching. We use the discussion, writing, and question-answer methods for classroom transactions. Besides this, we are using different curricular activities such as a student sharing their experiences in the classroom, interacting among peers, and mentioning lesson notes and dairy daily.

Response from FGD: Teachers mostly used the discussion method of teaching followed by the storytelling method in M.I.L, English, and History and the participatory method in science subjects.

Table 4.48: Methods of organising curricular activities

Sl No.	Transaction Method	Yes/No
1	Group Work	Yes
2	Role Play	Yes
3	Sharing their Experience	Yes
4	Use of TLMs	Yes
5	Innovative Practices	Yes
6	Learner Participation	Yes
7	Teacher Response	Yes
8	Scope for interaction among learners	Yes
09	Monitoring and Supervision	Yes
10	Lesson note and Dairy	Yes

The above table explained that almost all the curricular activities are being organised by the school.

Interviews and FGDs of Head Masters, Teachers, and Students

Response from HM: In my view, we have to follow the innovative way of teaching. If the teacher feels that the student is bored during his teaching, they have to change the method accordingly, maybe the play way method. I believe in actively engaging all learners in a group or individual by providing some group assignments. For example: drawing the cell &

further, they can use their reflection to draw it. Meanwhile, as a teacher, I always encourage students to do the same & ask questions related to that matter. Overall, my colleagues and I are more focused on the learning process by which we are given importance to activity-based and cognitive-based teaching.

Response from Teachers’: Yes, sometimes I use my mobile phone during my science class to show new experimentation and topic-related matters, which is a high cost for purchasing by the school. As a science teacher always prefers to active engagement of students during my whole teaching-learning process so that they can ask questions freely.

Response from FGD: Yes, teachers allow us to participate in classroom transaction; Yes, teachers encouraged us by saying 'Good,' 'Excellent,' and motivated us to participate in the classroom teaching-learning process; Yes, we asked questions during the teaching in the classroom; Yes, teachers organized group activities such as various small projects on Science Subjects; Yes, we are so happy for that involvement during activities.

Table 4.49: Extracurricular activities in school

Sl No.	Transaction Method	Frequently	Sometimes	Not at All
1	Sports and Games	-	Yes	-
2	Gardening	-	-	Yes
3	Yoga	-	Yes	-
4	Crafts	-	-	Yes
5	Drama	-	Yes	-
6	Debate	-	Yes	-
7	Creative Literacy Activities	-	Yes	-
8	Annual Sports	Yes	-	-
9	Annual Function	Yes	-	-
10	Song Competition	-	Yes	-
11	Elocutions	-	Yes	-

It is found from table 4.49 that the majority of the extracurricular activities used sometimes in the school such as Sports and Games, Yoga, Drama, Debate, Creative Literacy Activities, Song Competitions, and Elocutions. Except for Gardening and Crafts, extracurricular activities such as Annual Sports and Function activities are frequently followed in school.

Table 4.50: Use of technology/TLM

Sl No.	Tools/Equipments	Availability	How often used?
		Yes/No	Frequently
1	LCD Projector	Yes	Yes
2	Overhead Projector	No	-
3	Internet Facility	No	-
4	Television	No	-
5	DVD Player	No	-
6	Tape Recorder	No	-
7	Science Kit	Yes	Yes
8	Math Kit	Yes	Yes
9	Globe	Yes	Yes
10	Maps/Charts	Yes	Yes
11	e-Pathshala	Yes	Yes

It is observed from Table 4.50 that most of the tools/equipment are used by teachers frequently during the classroom teaching-learning process, such as LCD Projector, Science Kit, Math Kit, Globe, Maps/Charts, and e-Pathshala.

Interviews and FGDs of Head Masters, Teachers, Students and Parents

Response from HM: Yes, we provided basic teaching-learning materials, including ICT lab facilities for students, but unfortunately, without an ICT teacher, these facilities are in unworkable condition. Teachers used maps and charts during the teaching-learning process. But we don't have particular room to store those TLMs, so for that reason, a few of the materials are in the worst conditions.

Response from Teachers': Yes, we have many teaching-learning materials, including technological aids such as a blackboard, whiteboard, LCD projector, Science Kits, Math Kits, Globe, and e-Pathsala and we used those tools frequently.

Response from FGD: No use of ICT lab during the teaching in general classes except IT classes; Except, charts, maps, globes, and science kits, teachers did not use other teaching-

learning materials.

Response from Parents: All types of basic facilities are provided by the school include good classrooms, computer labs, etc.

Table 4.51: Pedagogical activities/ practicum

Sl No	Pedagogical Activities	Followed during teaching and learning
		Yes/No
1	Followed simple to complex teaching, learning, process	Yes
2	Recall the previous learning through present discussion	Yes
3	Engaging the students with activity based learning	Yes
4	Encourage the students for asking questions	Yes

Table 4.51 explained that the teachers use almost all pedagogical activities/practicum during the teaching-learning process.

Interviews and FGDs of Head Masters, Teachers, and Students

Response from HM: Mostly, we are using simple to complex teaching, a learning process by which students can easily understand a lesson effectively. I believe engaging the students with activity-based learning approach is one of the best and most effective ways of teaching.

Response from Teachers': As a science teacher, I always prefer to follow the simple to complex teaching-learning, process & asked questions before starting my class, I like to recall the previous knowledge through discussion only. Except for this, I feel so happy when students ask me questions during my teaching & answered them with various examples.

Response from FGD: Yes, the teacher asks questions before and during the classroom transaction & mostly its related to our prior experience and general knowledge. Teacher gave us enough time to think about the answer. Teacher allows us to participate in classroom transactions & we are so happy for that involvement during activities.

Table 4.52: Teacher-pupil relationships

Sl No.	Approaches	Extent of Practices		
		Frequently	Sometimes	Not at All
1	Establishing cordial relationship	Yes	-	-
2	Enquire about personal problem	-	Yes	-
3	Taking extra classes for weak students	Yes	-	-
4	Health Check Up	Yes	-	-
5	Parental Care	-	Yes	-
6	Scholarship to poor but meritorious students	-	-	Yes
7	Giving scope to pupils to ask questions in the classroom	Yes	-	-

It is evident from table 4.52 that most of the approaches for building healthy teacher-pupil relationships are frequently used, such as teachers trying to establish cordial relationships with students, taking extra classes for weak students, Health Check Up, and giving scope to pupils to ask questions in the classroom. However, there is no special provision for the teacher-side scholarship to poor but only to deserving students.

Interviews and FGDs of Head Masters, Teachers, Students and Parents

Response from HM: A student must be independent when it comes to acquiring knowledge. We have to establish cordial relationship with all students.

Response from Teacher 1: Students' active involvement in the classroom indicates a class more meaningful than the passive participation of students. We take different tests to understand student achievement in various subjects, such as weekly tests, monthly tests, and quarterly tests. This practice is helping us to track student understanding and weaknesses as per that we may plan for remedial classes for needy students.

Response from Teacher 2: Students answered my questions and asked different topic-related questions in my classroom. So overall, the active involvement of the student during classroom transactions is one of the best meaningful classroom practices. Besides this, we have good seating

arrangements in our school, including proper light and ventilation in every classroom.

Response from FGD: Yes, our teachers organize debate competitions, group discussions in the class and we actively participate in it.

Table 4.53: School Community Relationship

SI No.	Approaches	Extent of Practices
		Frequently
1	Parent teacher meeting	Yes
2	Invitation to parents during occasions	Yes
3	Involvement of community in school development	Yes
4	Community activities of school	Yes
5	Organising awareness programme in the community	Yes

It is observed from Table 4.53 that most of the approaches followed by the school to establish regulating effective school-community relationships.

Interviews and FGDs of Head Masters, Teachers, Students and Parents

Response from HM: Yes, school-community relationships are effectively working right now, and parents also actively participate in different activities such as festivals, various programs, annual meetings, and other developmental activities of the school. I can recall my past school community relationships experience from another school where community members provided land for the school, shelter, and financial support for all teachers in tribal areas.

Response from Teachers’: There are different types of meetings school has organized monthly or quarterly, such as PTA, MTA, and SMDC meetings. Except for this, we invite parents as guests to participate in it on every occasion. So these types of activities are helping to progress the school-community relationship effectively.

Response from Parents: Teachers invite us but I cannot attend the program due to my work. However, another parent stated that Yes, I participated in different community programs in school, such as occasional festivals, etc. School has organised regular SMC/ SMDC, and PTA/MTA meetings but due to this Covid 19, the teacher didn't call us for meetings regularly.

Table 4.54: Extension activities (Extra Mural Lectures, Seminars, and Workshops)

Sl. No	Activities	Yes/No
1	Does your school organise extra mural lectures by inviting eminent teachers	Yes
2	If yes on which subjects extra mural lectures are arranged: Language Subject	No
3	Social Studies Subject	Yes
4	Science Subject	No
	Activities	
1	School organise seminars and workshops on the current topics of the major subjects	Yes
2	School organise study tours for better learning	No

It is indicated from table 4.54 that the school has organized extramural lectures, especially in social science subjects. Further, the school organized seminars and workshops on the current topic of the major subjects, except study tours for students' better learning.

Table 4.55: School governance and management

Sl. No	Core Components	Yes/No
1	School has a regular Head Master	Yes
2	Availability of SMDC/SMC	Yes
3	SMDC is constituted as per the RMSA/SSA norms	Yes
4	SMDC/SMC holds monthly meetings	Yes
5	Proceedings of meeting are recorded	Yes
6	School Cabinet is constituted in school	Yes
7	Grievance redressal cell is a available	Yes
8	Complaint/Suggestion box available in School	Yes
9	Toll free numbers written prominently on the school wall	Yes
10	Academic calendar is available in school	Yes
11	School Improvement Plan is available in school	Yes
12	School has registers for different activities: Enrolment, Attendance, SMDC Register, and Cash Register.	Yes
13	Biometric attendance done in school	No

Table 4.55 explained that most core components are available in the school except biometric attendance.

Table 4.56: Monitoring/ Supervision of secondary schools by the higher authorities

Sl No.	Name of Authorities	Frequency		
		Frequently	Sometimes	Not at All
1	State Level Authorities		Yes	
2	District Project Coordinator	Yes		
3	District Pedagogy Coordinators		Yes	
4	CRC Coordinators	Yes		
5	School Inspectors		Yes	

It is evident from table 4.56 that authorities are visited schools sometimes rather than frequent basis.

Major five issues related to school improvement

1. Available of a less number of teaching and non-teaching staff as compared to students' ratio.
2. Lack of Sanitation Facilities, especially due to Covid 19.
3. Lack of transportation facilities for students due to hilly areas.
4. Parents involve students more in domestic activities, so it is causing students' absenteeism.
5. Due to a lack of proper elementary education, students' performance is consistently low in basic knowledge.

Five suggestions for the improvement of the quality of the School

1. Increasing the number of teaching and non-teaching posts.
2. Provision of extending the building facilities for more classrooms.
3. Providing communication facilities or hostel facilities for students.
4. Special programmes on community awareness relating to student absenteeism due to excessive domestic work.
5. Strengthening elementary education so that basic knowledge will help students at the secondary school level.

4.6.2 CASE- 2: Kalahandi: Bhawanipatna Block

Name of the School: Govt. High School Talbelgaon

School Telephone No: Not Applicable

School Email ID: Not Applicable

Permanent Head Teacher: Available (In-charge only)

Name of the Block: Bhawanipatna

Name of the District: Kalahandi

Type of School: Co-educational

Course Pattern: Board of Secondary Education (BSE)

U-DISE Code of School: 21260126901

Class Available: I-X

Sections in Classes: IX: 1/41 X: 1/25

Photo 4.6: School Environment

Maximum Distance: More than 5kms

Govt. High School Talbelgaon, Kalahandi, has been rendering about 52 years of service in providing education to its locality, especially the Kutia Kondh tribes. It was established in 1970 by a private management committee and taken over by the Government of Odisha under the School and Mass Education in 2008. Now it has occupied its place in the list of Govt. High School, Talbelgaon, and Kalahandi. It is a co-educational type of secondary school from class I to X, having a total of 1 classroom for class IX with 41 students strength and 1 classroom for class X with 25 students, respectively. It is indicated that the school has a good number of classrooms as per the students' ratio. Further, the Pupil-Teacher Ratio (PTR) 22:1, which followed the NEP/SSA/RMSA, 2020 norm, i.e., 40:1.



Photo 4.7: Student Classroom Ratio

Different Quality Aspects

Table 4.57: Availability of teaching and non-teaching staffs

Sl No	Current Position	Educational Qualification	Subject Teaching	Experience in Years
1	Teacher	B.A, & B.Ed.	English & Social Sciences	10
2	Teacher & In-charge HM	M.Sc.& B.Ed.	PCM, & CBZ	10
3	Teacher	M.A, & B.Ed.	Language	10

It is observed from table 4.57 that school doesn't have all subject teachers besides non-teaching staffs. However, school has good academic results as compare to other nine (9) schools within the Bhawanipatna block.

Table 4.58: Details about school arrangement

Sl. No.	Dimensions	Availability		If Yes,				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1	Classrooms	Yes	-	-	Yes	-	-	-
2	HM/Principal Room	Yes	-	-	Yes	-	-	-
3	Office Room	Yes	-	-	Yes	-	-	-
4	Library	Yes	-	-	Yes	-	-	-
5	Reading room	Yes	-	-	Yes	-	-	-
6	Labs	Yes	-	-	Yes	-	-	-
7	Play Ground	-	No	-	-	-	-	-
8	Staff Common Room	Yes	-	-	Yes	-	-	-

9	Students Hostel	-	No	-	-	-	-	-
10	Staff Quarters	-	No	-	-	-	-	-
11	Ramp and Railing for inclusive environment	-	No	-	-	-	-	-
12	Computer room	Yes	-	-	Yes	-	-	-
13	Separate Toilet blocks for boys and girls	Yes	-	-	Yes	-	-	-

It is revealed from table 4.58 that most of the school arrangement is in good condition except the playground, students hostel, staff quarters, and ramp and railing for an inclusive environment. So it can be concluded that schools have good working conditions.

Table 4.58.1: Details about Schools Arrangement

Sl No.	Dimensions	Availability		If Yes,				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1	Separate Toilet for teachers	Yes	-	-	Yes	-	-	-
2	Separate toilet for female teachers	-	No	-	-	-	-	-
3	Drinking Water Facility	Yes	-	-	-	-	Yes	-
4	Resource Room	-	No	-	-	-	-	-
5	Auditorium/ Multi Purpose Hall	-	No	-	-	-	-	-
6	Medical Sick Room	-	No	-	-	-	-	-
7	Boundary Wall	-	No	-	-	-	-	-
8	Kitchen Shed	Yes	-	-	-	Yes	-	-
9	Art/Craft/Culture room	-	No	-	-	-	-	-
10	Girls' Hostel	-	No	-	-	-	-	-

11	Boys' Hostel (Under Construction)	-	No	-	-	-	-	-
12	Garden	Yes	-	-	-	-	-	-

Table 4.58.1 indicated that most school arrangements are unavailable such as separate toilets for female teachers, resource room, auditorium/multipurpose hall, medical sick room, art/craft/culture, and girls' hostel. However, whatever arrangements are available come under poor and manageable conditions, such as a drinking water facility and kitchen shed.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: School has good infrastructure facilities, However, If we focus on classroom situations, we need more TLM & TLM in every subject. The teacher needs more autonomy from the government, especially during his/her class teaching, such as freedom to choose teaching methods, etc.

Response from Teachers': There is no such type of academic facilities provided by the school for teaching staff, except training program from the government side. However, school has basic infrastructure for students.

Response from FGD: Yes, in our school we have good seating facilities in the classroom, discipline, cleanliness of blackboard, grouping of students.

Response from Parents: The school provides basic facilities such as good classrooms, seating arrangement, toilets for students, etc.

Table 4.59: Curriculum components & facilities

Sl No.	Curricular Inputs	Yes/No
1	Library Books	Yes
2	Science Lab	Yes
3	Science Equipment	Yes
4	Computer Lab	Yes
5	e-Pathshala Accessibility	No

Table 4.59 it is explained that most of the curriculum components and facilities are available in schools, such as Library books, Science labs, Science equipment, and Computer lab. However, the computer lab is available without computer gadgets.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: Yes, in our school, we have library books, science lab/equipment, and a computer lab without computers.

Response from Teachers’: Yes, we have library books, science lab/equipment, and computer lab without computers in our school. We have different curricular inputs in our school except computers or other technological aids from the government sides.

Response from FGD: Teachers use charts, maps, globes in geography and history classes & blackboards in every teaching while delivering their lesson; In most of the classes, teachers used TLM except for math class.

Response from Parents’: The school provides basic facilities such as good classrooms, seating arrangement, and computer lab room without computers, etc.

Table 4.59.1: Status of secondary schools: Under different facilities

Sl No.	Facilities	Responses
		Yes/No
1	Availability of Sanitizer and Mask	Yes
2	Availability of Safe Drinking Water in School	No
	Source of Drinking Water: Tap Water	No
	Hand Pump	Yes
	Any others (Filter etc.)	No
3	Availability of Electricity in School	Yes
4	Availability of Fans in Classrooms	Yes
5	Available of Playground in school premises	No
5	Availability of Locker facility in School	No

It is observed from Table 4.59.1 that the school doesn’t have locker facilities and safe drinking water and the source of drinking water is a hand pump that produces iron-based water. However, the school has electricity, fan, sanitizer, and mask facilities.

Table 4.60: Classroom environment

Sl. No.	Dimensions	Availability		If yes...				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1	Suitable size of Classrooms	Yes	-	-	Yes	-	-	-
2	Seating arrangement (Desk/ Chair-table etc.)	Yes	-	-	Yes	-	-	-
3	Space for group work	Yes	-	-	Yes	-	-	-
4	Black board	-	No	-	-	-	-	-
5	White board	Yes	-	-	Yes	-	-	-
6	Class room colour and Decoration	Yes	-	-	Yes	-	-	-
7	Electricity with fan and Light	Yes	-	-	Yes	-	-	-
8	Ventilation	Yes	-	-	Yes	-	-	-
9	General Cleanliness	Yes	-	-	Yes	-	-	-
10	TLM corner	Yes	-	Yes	-	-	-	-

It is indicated from table 4.60 that most of the dimensions for the classroom environment are in excellent and good condition.

Interviews and FGDs Responses from Head Masters, Teachers and Students

Response from HM: To improve student achievement, we have to provide a good learning environment for the student. Especially from seating arrangements to availing all types of facilities, including TLMs. A teacher provides a learning environment and helps a student as a guide to learn easily. So teaching-learning not only confined within the classroom but also from external sources can be a part of it. We must engage our students through activities & strictly avoid a one-sided teaching-learning process.

Response from Teacher 1: We have good classrooms and seating arrangements in my school, including proper light and ventilation facilities. We must engage our students through activities & strictly avoid the passive teaching-learning process. Most of my classroom transactions are process friendly in nature so that students can easily ask questions for their better understanding.

Response from Teacher 2: Mostly, I love to engage students in classes through an activities-based approach, and before that, I am looking towards proper seating arrangements, including appropriate light and ventilation for students.

Response from FGD: Yes, in our school we have good seating facilities in the classroom, discipline, cleanliness of blackboard, grouping of students.

Response from Parents: The school provides basic facilities such as good classrooms, seating arrangement, and computer lab room without computers, etc.

Table 4.61: Curriculum components used during classroom transaction

Sl No.	Curricular Inputs	Yes/No
1	White Board related components	Yes
2	Text based Materials	Yes
3	Audio/Video based Materials	No
4	Image/Graphic based Materials	No
5	ICT Instruments	No
6	Locally available TLM	Yes

It is evident from above table 4.61 that other curriculum inputs are not available in school except whiteboard-related components, text-based materials, and locally available TLM. However, teachers use their laptops during the teaching-learning process.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: Yes, we have a whiteboard and related materials in our school. Teachers use their own audio/video-based materials and use locally available TLMs. But right now school needs an ICT lab & good text-based materials on an urgent basis.

Response from Teachers': Yes, our school has very a few prescribed curriculum components, such as whiteboard-related materials and locally available TLMs.

Response from FGD: Except, charts, maps, globes, and science kits, teachers used their own

laptop and mobile phones during classroom transactions.

Response from Parents: *There is a need for computer facilities in our school to enhance the quality of the study as well as teaching-learning materials.*

Table 4.62: Method of transaction during classroom transaction

Sl No.	Transaction Method	Frequently	Sometimes	Not at All
1	Discussion	Yes	-	-
2	Demonstration	Yes	-	-
3	Field Visit	-	-	Yes
4	Group Discussions	-	Yes	-
5	Peer Learning	-	Yes	-
6	Panel Discussion	-	Yes	-
7	Self-Study	-	Yes	-
8	Guided Study	Yes	-	-
9	Project Work	-	Yes	-
10	Brainstorming	-	Yes	-
11	Assignment	Yes	-	-

It is observed from Table 4.62 that almost all methods of transactions are used during the classroom teaching process except for field visit. For instance, picture 6 explained the teacher's demonstration method during science teaching in classes IX and X.



Photo 4.8: Demonstration Method used by Science Teacher

Interviews and FGDs Responses from Head Masters, Teachers, and Students

Response from HM: *Yes, we are using the demonstration method in math and science subjects, learning by doing approach, Inductive and deductive method, analysis and synthesis method also used for other topics.*

Response from Teacher 1: *Yes, I have mostly used the discussion method, and in curricular*

activities, students can easily share their experiences with classmates and teachers. I also used group work activities, and through this group work, a student can learn teamwork and related achievements.

Response from Teacher 2: Yes, Mostly I used the discussion method so that student could easily share their experiences with classmates and teachers.

Response from FGD: Teachers mostly used the discussion method of teaching followed by the storytelling method in M.I.L, English, and History and the participatory method in science subjects.

Table 4.63: Methods of organising curricular activities

Sl No.	Transaction Method	Yes/No
1	Group Work	Yes
2	Role Play	Yes
3	Sharing their Experience	Yes
4	Use of TLMs	Yes
5	Innovative Practices	Yes
6	Learner Participation	Yes
7	Teacher Response	Yes
8	Scope for interaction among learners	Yes
9	Monitoring and Supervision	Yes
10	Lesson note and Dairy	Yes

The above table explains that the school organized most of the curricular activities.

Interviews and FGDs Responses from Head Masters, Teachers, and Students

Response from HM: 'Nothing can be taught' when we say we are teaching students, it's a wrong concept. Generally, teachers have the false perception that they complete their class within 45 minutes, but student understanding matters more here. To improve student achievement, we have to provide a good learning environment for the student, especially from seating arrangements to availing all types of facilities, including TLMs. A teacher provides a learning environment and helps a student as a guide to learn easily. So teaching-learning not only confined within the classroom but also from an external source can be a part of it. We must engage our students through activities & strictly avoid a one-sided

teaching-learning process. A teacher can use the learning 'learning by doing method. Teachers can use audio-visual aids during their teaching, especially in my school, my colleagues use their laptops to teach the student. However, my school doesn't have an ICT lab. Therefore, teaching the students on a big screen isn't easy.

Response from Teacher 1: As a teacher, I use different methods during my classroom teaching. Sometimes I also used my laptop and mobile phone to describe the concepts and topic-related contents, and due to this most of the time, students actively responded to my questions. Sometimes doubt clear classes are organized for students to better performance.

Response from Teacher 2: After completing my syllabus I focused on doubt-clear classes. After that, I took some weekly tests to know whether the lessons were understandable to students. I used my mobile phone most of the time to visualize good examples related to the course content.

Response from FGD: Yes, Sir used his laptop during class teaching without using any projector. Teachers also arranged remedial classless to solve our problems.

Table 4.64: Extracurricular activities in the school

Sl No.	Transaction Method	Frequently	Sometimes	Not at All
1	Sports and Games	-	Yes	-
2	Gardening	-	Yes	-
3	Yoga	-	Yes	-
4	Crafts	-	-	Yes
5	Drama	-	Yes	-
6	Debate	-	Yes	-
7	Creative Literacy Activities	-	Yes	-
8	Annual Sports	-	Yes	-
9	Annual Function	-	Yes	-
10	Song Competition	Yes	-	-
11	Elocutions	Yes	-	-

It is found from table 4.64 that the majority of the extracurricular activities used sometimes in the school such as Sports and Games, Yoga, Drama, Debate, Creative Literacy Activities, Song Competitions, and Elocutions. However, extracurricular activities such as song competitions and elocutions followed frequently in school except for the craft activities.

Table 4.65: Use of technology/TLM

SI No.	Tools/Equipments	Availability	How often used?
		Yes/No	Frequently
1	LCD Projector	No	No
2	Overhead Projector	No	-
3	Internet Facility	No	-
4	Television	No	-
5	DVD Player	No	-
6	Tape Recorder	No	-
7	Science Kit	Yes	Yes
8	Math Kit	Yes	Yes
9	Globe	Yes	Yes
10	Maps/Charts	Yes	Yes
11	e-Pathshala	No	-

It is observed from table 4.65 that schools don't have any technological gadgets except science kits, math kits, globes, and maps/charts.

Interviews and FGDs Responses from Head Masters, Teachers, Students, and Parents

Response from HM: Yes, we have a whiteboard, science kit, math kit, globe, maps, and charts. Besides this, we also use our mobile phones and personal laptops during our teaching. But we didn't receive any ICT lab support from the government side.

Response from Teachers': Yes, we have a whiteboard, science kit, math kit, globe, maps, and charts. Besides this, I also use mobile phones and personal laptops during my classroom teaching.

Response from FGD: Except, charts, maps, globes, and science kits, teachers used their own laptop and mobile phones during classroom transactions.

Response from Parents: There is need of computer facilities in our school for better use of teaching-learning materials.

Table 4.66: Pedagogical activities/ practicum

SI No	Pedagogical Activities	Followed during teaching and learning
		Yes/No
1	Followed simple to complex teaching, learning, process	Yes
2	Recall the previous learning through present discussion	Yes
3	Engaging the students with activity based learning	Yes
4	Encourage the students for asking questions	Yes

Table 4.66 explained that the teachers use almost all pedagogical activities/practicum during the teaching-learning process.

Interviews and FGDs Responses from Head Masters, Teachers, and Students

Response from HM: Mostly, we are using simple to complex teaching, a learning process by which students can easily understand a lesson effectively. I believe engaging the student with activity-based learning is one of the best and most effective ways of teaching.

Response from Teachers': Mostly, I used simple to complex teaching, a learning process by which students can easily understand a lesson effectively. During my classroom teaching, I always prefer to ask questions related to the previous class. It will help students reconnect to the previous study and connect it to the present context.

Response from FGD: Yes, the teacher asked questions & related to prior experience and general knowledge. Teachers' also gave us enough time to think about the answer during classroom transactions.

Table 4.67: Teacher-pupil relationships

SI No.	Approaches	Extent of Practices		
		Frequently	Sometimes	Not at All
1	Establishing cordial relationship	Yes	-	-
2	Enquire about personal problem	Yes	-	-
3	Taking extra classes for weak students	-	Yes	-
4	Health Check Up	Yes	-	-
5	Parental Care	Yes	-	-
6	Scholarship to poor but meritorious students	-	Yes	-
7	Giving scope to pupils to ask questions in the classroom	Yes	-	-

It is evident from table 4.67 that most of the approaches for building healthy teacher-pupil relationships are used frequently, except taking extra classes for weak students and scholarships to poor but deserving students sometimes.

Table 4.68: School community relationship

SI No.	Approaches	Extent of Practices	
		Frequently	Sometimes
1	Parent teacher meeting	Yes	
2	Invitation to parents during occasions	Yes	
3	Involvement of community in school development	-	Yes
4	Community activities of school	-	Yes
5	Organising awareness programme in the community	-	Yes

It is observed from Table 4.68 that most of the approaches followed by the school to establish regulating effective school-community relationships.

Interview Responses from Head Masters, Teachers, and Parents

Response from HM: To strengthen the school-community relationship, we have to regularly communicate with parents and different community members from the locality. After lunching of 'Mou School Abhiyan,' the picture of school-community relationships is improved. Because through this program, it is easy to collect physical and financial support from students who excel in their lives.

Response from Teachers': Our school organized monthly meetings and particularly SMDC (School Management Development Committee) and other MTA and PTA meetings, along with inviting parents on different occasions or festivals of the schools.

Response from Parents: Yes, school authority invites the community members on different occasions such as Independence Day and Republic Day.

Table 4.69: Extension activities (Extra Mural Lectures, Seminars, Workshops, Study)

Sl. No	Activities	Yes/No
1	Does your school organise extra mural lectures by inviting eminent teachers	Yes
2	If yes on which subjects extra mural lectures are arranged: Language Subject	No
3	Social Studies Subject	Yes
4	Science Subject	No
	Activities	
1	School organise seminars and workshops on the current topics of the major subjects	Yes
2	School organise study tours for better learning	No

It is indicated from table 4.69 that the school organized extramural lectures, especially in social science subjects. Further, the school organized seminars and workshops on the current topic of the major subjects but failed to organize study tours for students' better learning.

Table 4.70: School governance and management

Sl. No	Core Components	Yes/No
1	School has a regular Head Master	No
2	Availability of SMDC/SMC	Yes
3	SMDC is constituted as per the RMSA/SSA norms	Yes
4	SMDC/SMC holds monthly meetings	Yes
5	Proceedings of meeting are recorded	Yes
6	School Cabinet is constituted in school	Yes
7	Grievance redressal cell is a available	Yes
8	Complaint/Suggestion box available in School	Yes
9	Toll free numbers written prominently on the school wall	Yes
10	Academic calendar is available in school	Yes
11	School Improvement Plan is available in school	Yes
12	School has registers for different activities: Enrolment, Attendance, SMDC Register, and Cash Register.	Yes
13	Biometric attendance done in school	No

Table 4.70 explained that most of the core components are available in the school except regular Head Master and Biometric attendance for teaching and non-teaching staff.

Table 4.71: Monitoring/ Supervision of secondary schools by the higher authorities

Sl No.	Name of Authorities	Frequency		
		Frequently	Sometimes	Not at All
1	State Level Authorities	-	Yes	-
2	District Project Coordinator	-	Yes	-
3	District Pedagogy Coordinators	-	-	Yes
4	CRC Coordinators	Yes	-	-
5	School Inspectors	-	Yes	-

It is evident from table 4.71 that authorities are visited schools sometimes rather than frequent basis.

Major five issues related to school improvement

1. Lack of subject teachers, including lady teachers and non-teaching staff.
2. The school doesn't have boundary walls, including a playground on school premises.
3. Drinking water problem due to too much iron level in the water.
4. The school doesn't have computer and internet facilities.
5. The school doesn't have cycle and bike stands.

Five suggestions for the improvement of the quality of the School

1. Appoint subject-specific teachers as well lady teachers to promote girl enrolment accordingly.
2. Facilitate safe drinking water for all as it is a basic need.
3. Build boundary walls for protection from wild animals and other safety reasons.
Facilitating a playground within school premises will help students to improve their physical fitness.
4. Organize the special program on community awareness relating to student absenteeism and achievement.
5. Facilitate computers, printers, and internet facilities in the school.

4.6.3 CASE- 3: Nabarangpur: Papadahandi Block

Name of the School: Govt. New Harischandra High School, Tumberlla

School Telephone No: Not Applicable

School Email ID: Not Applicable

Permanent Head Teacher: Available

Name of the Block: Papadahandi

Name of the District: Nabarangpur

Type of School: Co-educational

Course Pattern: Board of Secondary Education (BSE)

U-DISE Code of School: 21280708702

Class Available: VI-X

Sections in Classes: IX: 2/88 X: 2/78

Maximum Distance: More than 5kms

Government New Harischandra High School, Tumberlla, Nabarangpur, has premiered nearly 56 years of service in providing education to its locality, especially Paraja tribes. It was established in 1966 by the Government of Odisha under the School and Mass Education. It is a co-educational type of secondary school from class VI to X, having a total of 2 classrooms for class IX with 88 students strength and 2 classrooms for class X with 78 students, respectively. It indicated that the school has a good number of classrooms per student ratio. Further, the Pupil Teacher Ratio (PTR) is 33:1, followed by the Samagra Shiksha Abhian and NEP 2020 prescribed norm, i.e., 40:1.



Photo 4.9: School Environment

Different Quality Aspects

Table 4.72: Availability of teaching and non-teaching staffs

Sl No	Current Position	Educational Qualification	Subject Teaching	Experience in Years
1	Head Teacher	M.Sc.& B.Ed.	PCM	15
2	Teacher	M.A & B.Ed.	Social Sciences	8
3	Teacher	M.Sc.& B.Ed.	CBZ	8
4	Teacher	M.A. & B.Ed.	Language	8
5	Teacher	+2with CPED	PET	22

It is observed from table 4.72 that schools don't have all subject teachers, including non-teaching staff. However, the school has better academic results compared to the other nine (9) schools within the Papadahandi block of the Nabarangpur district.

Table 4.73: Details about school arrangement

Sl. No.	Dimensions	Availability		If Yes,				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1	Classrooms	Yes	-	-	Yes	-	-	-
2	HM/Principal Room	Yes	-	-	-	Yes	-	-
3	Office Room	Yes	-	-	-	Yes	-	-
4	Library	Yes	-	-	-	Yes	-	-
5	Reading room	Yes	-	-	-	Yes	-	-
6	Labs	-	No	-	-	-	-	-
7	Play Ground	Yes	-	-	Yes	-	-	-

8	Staff Common Room	Yes	-	-	-	Yes	-	-
9	Students Hostel	-	No	-	-	-	-	-
10	Staff Quarters	-	No	-	-	-	-	-
11	Ramp and Railing for inclusive environment	Yes	-	-	-	Yes	-	-
12	Computer room	Yes	-	-	Yes	-	-	-
13	Separate Toilet blocks for boys and girls	Yes	-	-	Yes	-	-	-
14	Boundary Wall	Yes	-	-	Yes	-	-	-
15	Boys' Hostel (Under Construction)	-	No	-	-	-	-	-

It is revealed from table 4.73 that most of the school arrangements are in manageable conditions except classrooms, playground, computer room, boundary wall, and separate toilet block for boys and girls. However, the school doesn't have labs, students' hostel, and staff quarters arrangement. So it can be concluded that schools have the major arrangements for management conditions.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: There are no such facilities from the government side except training facilities.

Responses from Teachers': There is no such facility from the government except training facilities for teaching staff. Even we don't have a separate toilet facility for us.

Responses from FGD: Yes, in our school we have good seating facilities in the classroom, discipline, cleanliness of blackboard, grouping of students. School has a boundary wall. However, the school has separate cleaned toilets for both boys and girls.

Responses from Parents: The school doesn't have a science lab, proper subject-specific teachers and non-teaching staff, unsafe drinking water, and needs to improvise basic infrastructures for students.

Table 4.74: Status of secondary schools: Curriculum components & facilities

Sl No.	Curricular Inputs	Yes/No
1	Library Books	Yes
2	Science Lab	No
3	Science Equipment	Yes
4	Computer Lab	Yes
5	e-Pathshala Accessibility	No

Table 4.74 explained that schools have science equipments but don't have the necessary lab. However, the school has library books and a computer lab.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: School doesn't have a science lab. However, science equipment is available and used by teachers during teaching. The school has library and computer labs.

Responses from Teachers': School doesn't have a science lab. However, science equipment is available and used by teachers during teaching. The school has library and computer labs. Another teacher stated that We have library and computer labs in our school except for the science lab.

Responses from FGD: Teachers use charts, maps, globes in geography and history classes & blackboards in every teaching while delivering their lesson; In most of the classes, teachers used TLM except for math class.

Responses from Parents: Yes, there is availability of computer labs, etc., provided by the school.

Table 4.74.1: Status of secondary schools: Under different facilities

Sl No.	Facilities	Responses
		Yes/No
1	Availability of Sanitizer and Mask	Yes
2	Availability of Safe Drinking Water in School	No
	Source of Drinking Water: Tap Water	No
	Hand Pump	No
	Any others (Filter etc.)	No
3	Availability of Electricity in School	Yes
4	Availability of Fans in Classrooms	Yes
5	Availability of Locker facility in School	No

It is observed from table 4.74.1 that schools don't have major facilities such as safe drinking water and locker facilities for teachers'.

Table 4.75: Classroom environment

Sl. No.	Dimensions	Availability		If yes...				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1	Suitable size of Classrooms	Yes	-	-	-	Yes	-	-
2	Seating arrangement (Desk/ Chair-table etc.)	Yes	-	-	-	Yes	-	-
3	Space for group work	Yes	-	-	-	Yes	-	-
4	Black board	Yes	-	-	Yes	-	-	-
5	White board	-	No	-	-	-	-	-
6	Class room colour and Decoration	-	No	-	-	-	-	-
7	Electricity with fan and Light	Yes	-	-	Yes	-	-	-
8	Ventilation	Yes	-	-	Yes	-	-	-
9	General Cleanliness	Yes	-	-	Yes	-	-	-
10	TLM corner	-	No	-	-	-	-	-

It is indicated from table 4.75 that schools have good and manageable conditions for the classroom environment. However, the school doesn't have a whiteboard, TLM corner, etc.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: *I believe classrooms must have well-constructed facilities such as seating arrangements, related infrastructure, and well-light and ventilation facilities for students.*

Responses from Teachers’: We have good classrooms and seating arrangements in my school, including proper light and ventilation facilities. We must engage our students through activities & strictly avoid the passive teaching-learning process. Most of my classroom transactions are process friendly in nature so that students can easily ask questions for their better understanding. Another teacher stated that classroom environment must have well set up with basic infrastructure arrangements, including seating arrangements, light, fan, and proper ventilation. Besides this, a democratic atmosphere always makes a classroom environment more meaningful.

Responses from FGD: Yes, in our school we have good seating facilities in the classroom, discipline, cleanliness of blackboard, grouping of students.

Responses from Parents: Yes, there are available basic facilities in school such as good classrooms, average seating arrangements for students, computer labs, etc., provided by the school.

Table 4.76: Curriculum components used during classroom transaction

Sl No.	Curricular Inputs	Yes/No
1	White Board related components	Yes
2	Text based Materials	Yes
3	Audio/Video based Materials	Yes
4	Image/Graphic based Materials	Yes
5	ICT Instruments	Yes
6	Locally available TLM	Yes

The above table 4.76 that schools have all types of curricular inputs for classroom teaching and learning.

Interviews and FGDs Responses from Head Masters, Teachers, and Students

Response from HM: Our school has many curriculum components teachers use during classroom transactions, such as Blackboard-related components, text-based materials, audio/video-based materials, and ICT instruments.

Responses from Teachers’: Yes, in our school, we have all types of school prescribed curriculum components such as Blackboard-related components, text-based materials, audio/video-based materials; Image/graphic based materials, ICT instruments, and locally

available TLM.

Responses from FGD: Yes, sometimes our teachers use their mobile phones during class teaching for our better understanding; Teachers used charts, maps, globes in geography and history classes & blackboards in every teaching while delivering their lesson.

Table 4.77: Method of transaction during classroom transaction

Sl No.	Transaction Method	Frequently	Sometimes	Not at All
1	Discussion	Yes	-	-
2	Demonstration	-	Yes	-
3	Field Visit	-	Yes	-
4	Group Discussions	-	Yes	-
5	Peer Learning	-	Yes	-
6	Panel Discussion	-	Yes	-
7	Self-Study	-	Yes	-
8	Guided Study	-	Yes	-
9	Project Work	Yes	-	-
10	Brainstorming	-	Yes	-
11	Assignment	Yes	-	-

It is observed from table 4.77 that teachers followed the majority of transaction methods sometimes. However, discussion, project, and assignment transaction methods are used frequently.

Interviews and FGDs Responses from Head Masters, Teachers, and Students

Response from HM: Basically, many methods of teaching have been followed by our school teachers, i.e., Experimentation, discussion, recitations, and demonstration method (particularly in a science subject) for better understanding of a lesson. In my school, we change the technique immediately if we feel that students cannot understand the lesson.

Responses from Teachers': I mostly used demonstration and discussion methods in my subject (CBZ). Besides this, I also organized group work activities and field experience-based activities for students' better understanding. Another teacher stated that I used discussion, writing, and recitation method in my subject (Literature). Except for this, I used to role-play and mandatory interaction scope among peer groups.

Responses from FGD: Teachers mostly used the discussion method of teaching followed by the storytelling method in M.I.L, English, and History and the participatory method in science subjects.

Table 4.78: Methods of organising curricular activities

Sl No.	Transaction Method	Yes/No
1	Group Work	Yes
2	Role Play	Yes
3	Sharing their Experience	Yes
4	Use of TLMs	Yes
5	Innovative Practices	Yes
6	Learner Participation	Yes
7	Teacher Response	Yes
8	Scope for interaction among learners	Yes
09	Monitoring and Supervision	Yes
10	Lesson note and Dairy	Yes

The above table indicates that the school organized most of the curricular activities.

Interviews and FGDs Responses from Head Masters, Teachers, and Students

Response from HM: I followed teaching-learning practice as per the students' interests. The students' autonomy is in top priority during classroom transactions. As a teacher, I focused on the students' active involvement during the teaching-learning process.

Responses from Teacher 1: As a teacher, I use different methods during my classroom teaching. Sometimes I also used my laptop and mobile phone to describe the concepts and topic-related contents, and due to this, most of the time, students actively responded to my questions. Sometimes doubt clear classes have also been organized for students to perform better. Another teacher stated that I focused on their learning process for student achievement. Particularly, I organize separate doubt clear classes and different tests to track their progress.

Responses from FGD: Yes, our teachers involved us in group discussions in the class related to a particular topic from our subject. Yes, teachers conduct weekly test, monthly test, surprise tests, half yearly test, and annual test. But due to Covid 19, it was not conducted;

Yes, Sir used his laptop during class teaching without using any projector.

Interviews and FGDs Responses from Head Masters, Teachers, and Students on Innovative Practices

Response from HM: In my view, we have to follow the innovative way of teaching. If the teacher feels that the student is bored during his teaching, the teacher has to change the method accordingly, maybe the play way method. I believe in actively engaging all learners in a group or individual by providing some group assignments. For example: drawing the cell & further, they can use their reflection to draw it. Meanwhile, as a teacher, I always encourage students to do the same & ask questions related to that matter. Overall, my colleagues and I are more focused on the learning process by which we have given importance to activity-based and cognitive-based teaching.

Responses from Teachers': Most of my classroom transactions based on all students' active engagement and group activities followed by discussion. Except for this, sometimes I used my mobile phone and ICT labs to deliver my teaching effectively. Another teacher stated that my classroom transactions has based on all students' engaged actively in group activities followed by discussion too. Particularly, I encouraged students through different assignments for their self-reflection in my class.

Responses from FGD: Yes, teachers allow us to participate in classroom transaction; Yes, teachers encouraged us by saying 'Good,' 'Excellent,' and motivated us to participate in the classroom teaching-learning process; Yes, we asked questions during the teaching in the classroom; Yes, teachers organized group activities such as various small projects on Science Subjects; Yes, we are so happy for that involvement during activities.

Table 4.79: Extracurricular activities in the school

Sl No.	Transaction Method	Frequently	Sometimes	Not at All
1	Sports and Games	Yes	-	-
2	Gardening	Yes	-	-
3	Yoga	Yes	-	-
4	Crafts	-	-	Yes
5	Drama	-	Yes	-
6	Debate	-	Yes	-

7	Creative Literacy Activities	-	Yes	-
8	Annual Sports	Yes	-	-
9	Annual Function	Yes	-	-
10	Song Competition	-	Yes	-
11	Elocutions	-	Yes	-

It is found from Table 4.79 that most of the extracurricular activities are sometimes used in the school except sports and games, gardening, yoga, annual sports, and annual functions frequently. However, the school doesn't include craft activities as extracurricular activities.

Table 4.80: Use of technology/TLM

Sl No.	Tools/Equipments	Availability	How often used?
		Yes/No	Frequently
1	LCD Projector	Yes	Yes
2	Overhead Projector	No	-
3	Internet Facility	No	-
4	Television	No	-
5	DVD Player	No	-
6	Tape Recorder	No	-
7	Science Kit	Yes	Yes
8	Math Kit	Yes	Yes
9	Globe	Yes	Yes
10	Maps/Charts	Yes	Yes
11	e-Pathshala	No	-

It is observed from Table 4.80 that the school has an LCD projector and necessary Kits such as Science, Math, Maps, and Charts and uses it frequently.

Interviews and FGDs Responses from Head Masters, Teachers, and Students

Response from HM: We provided basic teaching-learning materials, including ICT lab facilities for students, but unfortunately, without an ICT teacher, these facilities are partially workable. Teachers used maps and charts during the teaching-learning process.

Responses from Teachers’: Yes, I used the science kit and ICT labs during my classroom transactions. Another teacher stated that I used Blackboard and mobile phones to understand my students during my classroom transactions better.

Responses from FGD: Sometimes our teachers used their mobile phones during class teaching for our better understanding; Except charts, maps, globes, science kits, and teachers are used locally available T.L.M. during his teaching. Teachers also provide his note to us.

Table 4.81: Pedagogical Activities/ Practicum

Sl No	Pedagogical Activities	Followed during teaching and learning
		Yes/No
1	Followed simple to complex teaching, learning, process	Yes
2	Recall the previous learning through present discussion	Yes
3	Engaging the students with activity based learning	Yes
4	Encourage the students for asking questions	Yes

Table 4.81 explained that the teachers use almost all pedagogical activities/practicum during the teaching-learning process.

Interviews and FGDs Responses from Head Masters, Teachers, and Students

Response from HM: Mostly, we used simple to complex teaching, a learning process by which students can easily understand a lesson effectively. I believed engaging the student with activity-based learning was one of the best and most effective ways of teaching.

Responses from Teachers’: Mostly, I used simple to complex approach and asked previous class questions to further reconnect with the present class.

Responses from FGD: Yes, teachers asked questions & it’s related to prior experience and general knowledge. Further, teachers organized group activities such as various small projects in science subject.

Table 4.82: Teacher-pupil relationships

Sl No.	Approaches	Extent of Practices		
		Frequently	Sometimes	Not at All
1	Establishing cordial relationship	Yes	-	-
2	Enquire about personal problem	-	Yes	-
3	Taking extra classes for weak students	-	Yes	-
4	Health Check Up	Yes	-	-
5	Parental Care	-	Yes	-
6	Scholarship to poor but meritorious students	-	-	Yes
7	Giving scope to pupils to ask questions in the classroom	-	Yes	-

It is evident from table 4.82 that most of the approaches are followed by teachers sometimes, except for the cordial relationship with students and health check-ups frequently.

Table 4.83: School community relationships

Sl No.	Approaches	Extent of Practices	
		Frequently	Sometimes
1	Parent teacher meeting	Yes	
2	Invitation to parents during occasions	Yes	
3	Involvement of community in school development	-	Yes
4	Community activities of school	-	Yes
5	Organising awareness programme in the community	Yes	-

It is observed from the table that 4.83 that most of the approaches followed by the school for establishing effective school community relationships & more frequently.

Interviews Responses from Head Masters, Teachers, and Parents

Response from HM: In our school we organized SMC meetings for parents so that they can easily engage with the school developmental program. We also invited parents on different occasions and festivals to build up a good relationship with community members of the society.

Responses from Teachers’: School organized SMC meetings for parents so that they can easily engage with the school developmental program. We invited parents on different occasions and festivals to build up a good relationship with community members of the society.

Responses from Parents: School organized SMC meetings regularly, but I cannot attend those meetings due to my homework. The school authorities also invite us on different occasions such as Saraswati Puja, Ganesh Puja, Sports competitions, Song competitions, etc.

Table 4.84: Extension activities (Extra Mural Lectures, Seminars, Workshops, Study)

Sl. No	Activities	Yes/No
1	Does your school organise extra mural lectures by inviting eminent teachers	No
2	The reason behind school is unable to organise extra mural lectures is : ‘Due to its proper plan and organising committee’.	
3		
	Activities	
1	School organise seminars and workshops on the current topics of the major subjects	Yes
2	School organise study tours for better learning	No

It is indicated in table 4.84 that the school is unable to organize extramural lectures due to its lack of a proper plan and organizing committee. However, the school organized seminars and workshops on the current topic of the major subjects except the study tours for students' better learning.

Table 4.85: School governance and management

Sl. No	Core Components	Yes/No
1	School has a regular Head Master	Yes
2	Availability of SMDC/SMC	Yes
3	SMDC is constituted as per the RMSA/SSA norms	Yes
4	SMDC/SMC holds monthly meetings	Yes
5	Proceedings of meeting are recorded	Yes
6	School Cabinet is constituted in school	Yes
7	Grievance redressal cell is a available	No
8	Complaint/Suggestion box available in School	Yes
9	Toll free numbers written prominently on the school wall	Yes
10	Academic calendar is available in school	Yes
11	School Improvement Plan is available in school	Yes
12	School has registers for different activities: Enrolment, Attendance, SMDC Register, and Cash Register.	Yes
13	Biometric attendance done in school	No

Table 4.85 explained that most of the core components are available in the school except regular grievance redressal cell and Biometric attendance for teaching and non-teaching staff.

Table 4.86: Monitoring/ Supervision of secondary schools by the higher authorities

Sl No.	Name of Authorities	Frequency		
		Frequently	Sometimes	Not at All
1	State Level Authorities	-	Yes	-
2	District Project Coordinator	-	Yes	-
3	District Pedagogy Coordinators	-	Yes	-
4	CRC Coordinators	Yes	-	-
5	School Inspectors	-	Yes	-

It is evident from table 4.86 that authorities have visited schools sometimes rather than on regular basis, i.e., CRC coordinators only.

Major five issues related to school improvement

1. Lack of subject teachers including lady teachers and non-teaching staffs.
2. Lack of basic infrastructure including desk, benches etc.
3. Drinking water problem due to too much iron level in water.
4. Lack of hostel facilities for students and staff quarters for teaching faculty.
5. Lack of sanitation facilities, especially toilets for teachers.

Five suggestions for the improvement of the quality of the School

1. Appointing subject specific teachers for effective learning outcomes.
2. Facilitating safe drinking water for all as it is a basic need.
3. Providing basic infrastructure facilities for students', such as desk and benches etc.
4. Establishing hostel facilities for students' and staff quarters for teaching and non-teaching faculty.
5. Special action on community awareness relating to students' performance, absenteeism and drop out.

4.6.4 CASE- 4: Koraput: Boipariguda

Name of the School: Ramagiri High School, Ramagiri

School Telephone No: Not Applicable

School Email ID: Not Applicable

Permanent Head Teacher: Available

Name of the Block: Boipariguda

Name of the District: Koraput

Type of School: Co-educational

Course Pattern: Board of Secondary Education (BSE)

U-DISE Code of School: 21290223471

Class Available: VI-X

Sections in Classes: IX: 1/133 X: 1/131

Maximum Distance: More than 5kms

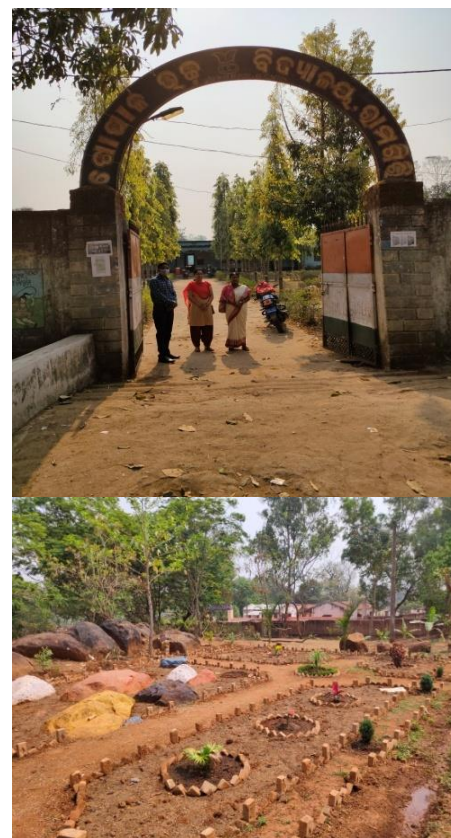


Photo 4.10: School Main Gate and Environment

Govt. High School, Ramagiri, Boipariguda, and Koraput have served for about 22 years in providing education to their locality, especially Mixed tribes. Still, as per the government data, some tribes are permanent residents of this Boipariguda block, such as Bhunia, Durua, and Paroja. It was established in 1999 by a private management committee and taken over by the Government of Odisha under the School and Mass Education in 2006. Now it has occupied a place in the list of recognized as Govt. High School Ramagiri, Boipariguda, Koraput. It is a co-educational type of secondary school from class VI to X, having 2 classrooms for class IX with 122 students and class X with 153 students, respectively. It is indicated that the school is facing a lack of suitable classrooms for students. However, the Pupil Teacher Ratio (PTR) is 38:1, which follows the Samagra Shiksha Abhiyan and Nation Education Policy 2020 norm, i.e., 40:1.

Different Quality Aspects

Table 4.87: Availability of teaching and non-teaching staffs

Sl No	Current Position	Educational Qualification	Subject Teaching	Experience in Years
1	Head Master	B.A., B.Ed.	Social Sciences	25
2	Senior Teacher	B.Sc.,& B.Ed.	PCM	24
3	Senior Teacher	B.Sc., B.Ed.	CBZ	24
4	Senior Teacher	B.A., B.Ed.	Social Sciences	15
5	Teacher	B.A., B.Ed.	Sanskrit	24
6	Teacher	B.A. & B.Ed.	Language	24
7	Teacher	+2 with CPED	Language	15
Except this there is one (1) non-teaching staff (clerk) also appointed in school.				

It is observed from table 4.87 that schools have a good number of subject teachers and one (1) non-teaching staff from which five (5) teachers have twenty (20) or more teaching experiences, which is indicated that schools have the more experienced teachers as compare to fresher ones.

Table 4.88: Details about school arrangement

Sl. No.	Dimensions	Availability		If Yes,				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1	Classrooms	Yes	-	-	-	-	-	Yes
2	HM/Principal Room	-	No	-	-	-	-	-

3	Office Room	-	No	-	-	-	-	-
4	Library	Yes	-	-	-	Yes	-	-
5	Reading room	Yes	-	-	-	Yes	-	-
6	Labs	-	No	-	-	-	-	-
7	Play Ground	-	No	-	-	-	-	-
8	Staff Common Room	-	No	-	-	-	-	-
9	Students Hostel	Yes	-	-	Yes	-	-	-
10	Staff Quarters	-	No	-	-	-	-	-
11	Ramp and Railing for inclusive environment	-	No	-	-	-	-	-
12	Computer room	-	No	-	-	-	-	-
13	Separate Toilet blocks for boys and girls	Yes	-	-	-	Yes	-	-
14	Drinking Water Facility	Yes	-	-	-	-	Yes	-
15	Boundary Wall	Yes	-	-	-	-	Yes	-
16	Kitchen Shed	Yes	-	-	-	Yes	-	-
17	Boys' Hostel (Under Construction)	Yes	-	-	-	Yes	-	-

It is revealed from table 4.88 that most of the school's arrangement is not available, and whatever arrangements there are mostly in manageable condition, except the hostel, which is not in good condition. So it can be concluded that school is facing basic arrangement problems and needs improvement.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: We don't have any academic facilities from the government due to its block grant status. But, we have a well pupil-teacher ratio, including one non-teaching staff.

Responses from Teachers': Due to its block grant status, there has no academic facility provided by the school for teaching staff. This school has mainly been managed by community members.

Responses from FGD: No, in our school we don't have good seating facilities in the classroom.

Responses from Parents: School doesn't have enough basic facilities such as proper classrooms, seating arrangements, lab facilities, and safe drinking facilities.

Table 4.89: Status of secondary schools: Curriculum components & facilities

SI No.	Curricular Inputs	Yes/No
1	Library Books	Yes
2	Science Lab	No
3	Science Equipment	Yes
6	Computer Lab	No
7	e-Pathshala Accessibility	No

Table 4.89 explained that most curriculum components and facilities are not available in schools except the library books and science equipment.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: Yes, schools have limited curriculum components, such as Blackboard-related, text-based materials, and locally available TLMs. But schools need ICT labs and related materials for effective teaching.

Responses from Teachers': Yes, schools have limited curriculum components, such as Blackboard-related, text-based materials, and locally available TLMs. But schools need ICT labs and related materials for effective teaching.

Responses from FGD: Except charts, maps, globes, science kits, and teachers used locally available T.L.M. during his teaching. Teachers also provide their notes to us.

Responses from Parents: School doesn't have enough basic facilities such as proper classrooms, seating arrangements, lab facilities, and safe drinking facilities, etc.

Table 4.89.1: Status of secondary schools: Under different facilities

SI No.	Facilities	Responses
		Yes/No
1	Availability of Sanitizer and Mask	Yes
2	Availability of Safe Drinking Water in School	No
	Source of Drinking Water: Tap Water	No
	Hand Pump	Yes
	Any others (Filter etc.)	No
3	Availability of Electricity in School	Yes
4	Availability of Fans in Classrooms	Yes

5	Availability of Locker facility in School	No
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It is observed from Table 4.89.1 that the school doesn't have locker facilities and safe drinking water and the source of drinking water is a hand pump. Schools don't have. However, schools have electricity, fan facilities, sanitizer, and mask facilities for all.

Table 4.90: Classroom environment

Sl. No.	Dimensions	Availability		If yes...				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1	Suitable size of Classrooms	-	No	-	-	-	-	-
2	Seating arrangement (Desk/ Chair-table etc.)	-	No	-	-	-	-	-
3	Space for group work	-	No	-	-	-	-	-
4	Black board	Yes	-	-	-	Yes	-	-
5	White board	-	No	-	-	-	-	-
6	Class room colour and Decoration	-	No	-	-	-	-	-
7	Electricity with fan and Light	Yes	-	-	-	Yes	-	-
8	Ventilation	Yes	-	-	-	-	Yes	-
9	General Cleanliness	Yes	-	-	Yes	-	-	-
10	TLM corner	-	No	-	-	-	-	-

It is indicated from table 4.90 that the majority of the classroom environment dimensions are not available, except blackboard and electricity, i.e., up-to for office room only.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: Our classroom environment is democratic in nature & the active involvement of the students. Currently, the school face problems related to well-equipped classrooms with effective TLMs.

Responses from Teachers': We don't have good infrastructure in our school, especially proper seating arrangements, electricity, and a high student classroom ratio. However, as a teacher, I love to adopt a democratic atmosphere during my classroom transactions and focus more on students' active participation in class.

Responses from FGD: In our school we don't have good seating facilities in the classroom.

Responses from Parents: School doesn't have enough basic facilities such as proper classrooms, seating arrangements, lab facilities, and safe drinking facilities.

Table 4.91: Curriculum components used during classroom transaction

Sl No.	Curricular Inputs	Yes/No
1	Black Board related components	Yes
2	Text based Materials	Yes
3	Audio/Video based Materials	No
4	Image/Graphic based Materials	No
5	ICT Instruments	No
6	Locally available TLM	Yes

It is evident from above table 4.91 that schools have all types of curricular inputs except audio/video-based materials, text, image/graphic, and ICT instruments.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: Schools don't have curricular inputs such as science labs, computer labs, & other labs for effective teaching. However, we are using science kit equipment during our teaching.

Responses from Teacher 1: Schools don't have curricular inputs such as science labs, computer labs, & other labs for effective teaching. However, we are using locally available TLMs during our classroom transactions. Another teacher stated that he used mobile phone during teaching-learning process for effective teaching.

Responses from FGD: Except charts, maps, globes, science kits, and teachers used locally available

TLMs during his teaching.

Responses from Parents: *School doesn't have enough basic facilities such as proper classrooms, seating arrangements, lab facilities, and safe drinking facilities.*

Table 4.92: Method of transaction during classroom transaction

Sl No.	Transaction Method	Frequently	Sometimes	Not at All
1	Discussion	Yes	-	-
2	Demonstration	-	Yes	-
3	Field Visit	-	-	Yes
4	Group Discussions	-	-	Yes
5	Peer Learning	Yes	-	-
6	Panel Discussion	-	Yes	-
7	Self-Study	-	Yes	-
8	Guided Study	-	Yes	-
9	Project Work	-	Yes	-
10	Brainstorming	-	Yes	-
11	Assignment	Yes	-	-

It is observed from table 4.92 that teachers followed the majority of transaction methods sometimes. However, discussion methods, peer learning, and assignment transaction methods are frequently used.

Interviews and FGDs Responses from Head Masters, Teachers, and Students

Response from HM: *In our school, we mainly used the discussion and demonstration method, which leads to student participation.*

Responses from Teachers’: *Mostly used the discussion and demonstration method, which led to the active participation of all students. Another teacher said he used the discussion method and mostly curricular activities such as debate and panel discussions during my classroom transactions.*

Response from FGD: *Teachers mostly used the discussion method of teaching followed by the storytelling method in MIL (O), English, and History and the participatory method in science subjects.*

Table 4.93: Methods of organising curricular activities

Sl No.	Transaction Method	Yes/No
1	Group Work	No
2	Role Play	Yes
3	Sharing their Experience	Yes
4	Use of TLMs	Yes
5	Innovative Practices	Yes
6	Learner Participation	Yes
7	Teacher Response	Yes
8	Scope for interaction among learners	Yes
09	Monitoring and Supervision	Yes
10	Lesson note and Dairy	Yes

The above table explained that the school organizes all the curricular activities except group work due to a lack of proper classroom space.

Interviews and FGDs Responses from Head Masters, Teachers, and Students

Response from HM: The best approach we followed for student achievement is a remedial class or doubt clear courses, and most of the methods are related to discussion and demonstration.

Responses from Teachers': The best approach we followed for student achievement is a remedial class or doubt clear courses, and most of the methods are related to discussion and demonstration.

Response from FGD: Yes, our teachers arranged remedial classless to solve our problems as well as problem that arises during the classroom transactions.

Interviews and FGDs Responses from Head Masters, Teachers, and Students on Innovative Practices

Response from HM: We used active engagement of all learners, and except this, teachers always encourage students to self-reflection & stress the process of learning.

Responses from Teachers': Followed the active engagement of all learners, except this teacher always encourages students to self-reflection & stress the process of learning. Another teacher stated that he likes to follow some innovative practices as a teacher. Sometimes, he used his mobile phone to visualize the book content as an illustrative purpose and encourage students to their self-reflection through discussion and debate.

Response from FGD: Teachers allowed us to participate in classroom transaction; Yes, teachers encouraged us by saying 'Good,' 'Excellent,' and motivated us to participate in the classroom teaching-learning process; Yes, we asked questions during the teaching in the classroom; Yes, teachers organized group activities such as various small projects on Science Subjects; Yes, we are so happy for that involvement during activities.

Table 4.94: Extracurricular activities in the school

Sl No.	Transaction Method	Frequently	Sometimes	Not at All
1	Sports and Games	-	Yes	-
2	Gardening	-	Yes	-
3	Yoga	-	Yes	-
4	Crafts	-	-	Yes
5	Drama	-	Yes	-
6	Debate	-	Yes	-
7	Creative Literacy Activities	-	Yes	-
8	Annual Sports	-	Yes	-
9	Annual Function	-	Yes	-
10	Song Competition	-	Yes	-
11	Elocutions	-	Yes	-

It is found from Table 4.94 that almost all extracurricular activities are followed by school sometimes. However, the school doesn't follow craft activities as extracurricular activities.

Table 4.95: Use of technology/TLM

Sl No.	Tools/Equipments	Availability	How often used?
		Yes/No	Frequently
1	LCD Projector	No	-
2	Overhead Projector	No	-
3	Internet Facility	No	-
4	Television	No	-
5	DVD Player	No	-
6	Tape Recorder	No	-

7	Science Kit	Yes	Yes
8	Math Kit	Yes	Yes
9	Globe	Yes	Yes
10	Maps/Charts	Yes	Yes
11	e-Pathshala	No	-

It is observed from table 4.95 that majorly the school doesn't have equipment except for Science Kit, Math Kit, and Maps and Charts and used it frequently.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: School has limited TLMs such as Blackboard, Science Kits, Math Kits, Globe, and Maps/Charts. Even at present, schools don't have any technological aids for teaching-learning purposes.

Responses from Teachers': School has limited TLMs such as Blackboard, Science Kits, Math Kits, Globe, and Maps/Charts. Even at present, schools don't have any technological aids for teaching-learning purposes.

Responses from FGD: Except charts, maps, globes, science kits, and teachers used locally available T.L.M. during his teaching.

Response from Parents: School doesn't have enough basic facilities such as proper classrooms, seating arrangements, lab facilities, and safe drinking facilities, etc.

Table 4.96: Pedagogical activities/ practicum

Sl No	Pedagogical Activities	Followed during teaching and learning
		Yes/No
1	Followed simple to complex teaching, learning, process	Yes
2	Recall the previous learning through present discussion	Yes
3	Engaging the students with activity based learning	Yes
4	Encourage the students for asking questions	Yes

Table 4.96 explained that the teachers use all most all pedagogical activities/practicum during the teaching-learning process.

Interviews and FGDs Responses from Head Masters, Teachers, and Students

Response from HM: Mostly, we used simple to complex teaching, a learning process by which students can easily understand a lesson effectively. HM believes engaging the student with activity-based learning is one of the best and most effective ways of teaching.

Responses from Teachers’: Mostly, simple to complex teaching is a learning process by which students can easily understand a lesson effectively.

Responses from FGD: Teachers asked questions before and during the teaching and also allow us to participate during classroom transactions.

Table 4.97: Teacher-pupil relationships

Sl No.	Approaches	Extent of Practices		
		Frequently	Sometimes	Not at All
1	Establishing cordial relationship	Yes	-	-
2	Enquire about personal problem	-	Yes	-
3	Taking extra classes for weak students	-	Yes	-
4	Health Check Up	-	Yes	-
5	Parental Care	-	Yes	-
6	Scholarship to poor but meritorious students	-	-	Yes
7	Giving scope to pupils to ask questions in the classroom	-	Yes	-

It is evident from table 4.97 that most of the approaches are followed by teachers sometimes, except for cordial relationships with students quite regularly.

Table 4.98: School community relationships

Sl No.	Approaches	Extent of Practices	
		Frequently	Sometimes
1	Parent teacher meeting	Yes	
2	Invitation to parents during occasions	Yes	
3	Involvement of community in school development	-	Yes
4	Community activities of school	-	Yes
5	Organising awareness programme in the community	Yes	-

It is observed from the table that 4.98 that almost all approaches followed by the school for establishing regulating effective school community relationship & more frequently.

Interviews and FGDs Responses from Head Masters, Teachers', and Parents'

Response from HM: Yes, school-community relationships are effectively working right now, and parents also actively participated in different activities such as festivals, various programs, annual meetings, and other developmental activities of the school.

Responses from Teachers': Yes, school-community relationships are effectively working right now, and parents also actively participated in different activities such as festivals, various programs, annual meetings, and other developmental activities of the school.

Responses from Parents: Yes, the school authority invited us on different occasions such as Independence Day and Republic Day, etc. However, we cannot regularly attend due to our work.

Table 4.99: Extension activities (Extra Mural Lectures, Seminars, Workshops, Study)

Sl. No	Activities	Yes/No
1	Does your school organise extra mural lectures by inviting eminent teachers	Yes
	<i>If 'Yes' on which subjects extra mural lectures are arranged:</i> For accessing higher education and different job perspectives.	
	Activities	
1	School organise seminars and workshops on the current topics of the major	No

	subjects	
2	School organise study tours for better learning	No

It is indicated from table 4.99 that the school organized extra mural activities, especially on how to access higher education and different job perspectives, except for workshop and study tours.

Table 4.100: School governance and management

Sl. No	Core Components	Yes/No
1	School has a regular Head Master	Yes
2	Availability of SMDC/SMC	Yes
3	SMDC is constituted as per the RMSA/SSA norms	Yes
4	SMDC/SMC holds monthly meetings	Yes
5	Proceedings of meeting are recorded	Yes
6	School Cabinet is constituted in school	No
7	Grievance redressal cell is a available	No
8	Complaint/Suggestion box available in School	No
9	Toll free numbers written prominently on the school wall	Yes
10	Academic calendar is available in school	Yes
11	School Improvement Plan is available in school	Yes
12	School has registers for different activities: Enrolment, Attendance, SMDC Register, and Cash Register.	Yes
13	Biometric attendance done in school	No

Table 4.100 explained that most of the core components for school governance and management are available except the school cabinet, regular grievance redressal cell, suggestion box, and Biometric attendance for teaching and non-teaching staff.

Table 4.101: Monitoring/ Supervision of secondary schools by the higher authorities

Sl No.	Name of Authorities	Frequency		
		Frequently	Sometimes	Not at All
1	State Level Authorities	-	Yes	-
2	District Project Coordinator	-	Yes	-
3	District Pedagogy Coordinators	-	-	Yes
4	CRC Coordinators	Yes	-	-
5	School Inspectors	-	Yes	-

It is evident from table 4.101 that CRC coordinators visited the school frequently basis.

Major five issues related to school improvement

1. Lack of subject teachers, including lady teachers and non-teaching staff.
2. Lack of basic infrastructure, including desks, benches, etc.
3. Lack of lab facilities including Head Master and office room.
4. Lack of staff quarters for teaching faculty.
5. Lack of sanitation facilities, especially toilets for teachers.

Five suggestions for the improvement of the quality of the School

1. Appointing subject-specific teachers and introducing vocational education.
2. It is a basic need to facilitate safe drinking water and mid-day meal for all.
3. Providing basic infrastructure facilities for students, such as desks, benches, etc.
4. Establishing staff quarters for teaching and non-teaching faculty.
5. Special action on community awareness relating to students' performance, absenteeism, and dropout.

4.6.5 CASE- 5: Malkangiri: Podia Block

Name of the School: Madhusudhan High School

School Telephone No: Not Applicable

School Email ID: Not Applicable

Permanent Head Teacher: Available

Name of the Block: Podia

Name of the District: Malkangiri

Type of School: Co-educational

Course Pattern: Board of Secondary Education

U-DISE Code of School: 21300702404

Class Available: VIII-X

Sections in Classes: IX: 1/82 X: 1/88

Maximum Distance: More than 5kms



Photo 4.11: School Main Gate and Office Room

Madhusudhan High School, Podia, Malkangiri, has been serving for about 26 years in providing education to its locality, especially Koya Tribes. It was established in 1996 by a private management committee and taken over by the Government of Odisha under the School and Mass Education in 2000. Now it has occupied a place in the list of Madhusudhan High School, Podia block, Malkangiri. It is a co-educational type of secondary school from class VIII to X, having a total 1 adjustable classroom for class IX with 82 students strength and 1 classroom for class X with 88 students, respectively. It is indicated that the school is facing a lack of classrooms. The maximum distance from student habitation mostly comes from within a 40kms radius. However, the Pupil Teacher Ratio (PTR) of 24:1 followed Samgra Shiksha Abhian and NEP 2020 norm, i.e., 40:1.



Photo 4.12: Pupil Teacher Ratio

Different Quality Aspects

Table 4.102: Availability of teaching and non-teaching staffs

Sl No	Current Position	Educational Qualification	Subject Teaching	Experience in Years
1	Head Master	B.A., B.Ed.	Social Sciences	20
2	Senior Teacher	B.A.,& B.Ed.	Social Sciences	18
3	Senior Teacher	B.A., B.Ed.	Social Sciences	15
4	Senior Teacher	B.Sc., B.Ed.	CBZ	15
5	Teacher	M.A., B.Ed.	Language	17
6	Teacher	M.A. & B.Ed.	Language	24
7	Teacher	B.A.with CPED	PET	21
Except this there is one (1) junior clerk, two (2) Peons and one (1) watchman also appointed in school.				

It is observed from Table 4.102 that the school good number of subject teachers except for science subject and one (4) non-teaching staff from which three (3) teachers have twenty (20) years or more than that teaching experience, which indicates that the school also experienced teacher.

Table 4.103: Details about school arrangement

Sl. No.	Dimensions	Availability		If Yes,				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1	Classrooms	Yes	-	-	-	-	-	Yes
2	HM/Principal Room	Yes	-	-	-	-	-	Yes

3	Office Room	Yes	-	-	-	-	-	Yes
4	Library	-	No	-	-	-	-	-
5	Reading room	-	No	-	-	-	-	-
6	Labs	-	No	-	-	-	-	-
7	Play Ground	-	No	-	-	-	-	-
8	Staff Common Room	-	No	-	-	-	-	-
9	Students Hostel	Yes	-	-	-	Yes	-	-
10	Staff Quarters	-	No	-	-	-	-	-
11	Ramp and Railing for inclusive environment	-	No	-	-	-	-	-
12	Computer room	-	No	-	-	-	-	-
13	Separate Toilet blocks for boys and girls	Yes	-	-	-	-	Yes	-
14	Drinking Water Facility	Yes	-	-	-	-	Yes	-
15	Boundary Wall	Yes	-	-	-	-	Yes	-
16	Kitchen Shed	Yes	-	-	-	-	Yes	-
17	Boys' Hostel (Under Construction)	Yes	-	-	-	Yes	-	-

It is revealed from table 4.103 that most of the school arrangements are not available and whatever arrangements there are mostly in poor and very poor conditions, except the hostel, which is in a manageable condition. So it can be concluded that school face basic arrangement problems and needs to improve further.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: Except for training programs from the government side, school staff doesn't have any academic facilities from anywhere. There is no common staff room for faculty, unavailability of staff quarters, etc.

Responses from Teachers': The school provides no such academic facilities for teaching staff. Our school also lacks basic facilities for students as well as teaching staff. However, he attended training programs at the district level.

Responses from FGD: In our school we don't have good seating facilities in the classroom.

Responses from Parents: Schools have many problems related to basic facilities such as good classrooms, proper seating arrangements, reasonable TLMs, Labs facilities, school boundary wall, etc.

Table 4.104: Curriculum components & facilities

Sl No.	Curricular Inputs	Yes/No
1	Library Books	Yes
2	Science Lab	No
3	Science Equipment	Yes
6	Computer Lab	No
7	e-Pathshala Accessibility	No

Table 4.104 explained that most curriculum components and facilities are not available in schools except for library books and science equipment.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: Except library books and science equipment, our school doesn't have any other types of curricular inputs for effective teaching.

Responses from Teachers': School has library books and science equipment, our school doesn't have any other types of curricular inputs for effective teaching.

Response from FGD: We have charts, maps, globes, science kits, and teachers are used locally available TLMs during his teaching.

Response from Parents: School doesn't have basic facilities such as good classrooms, proper seating arrangements, reasonable TLMs, Labs facilities, etc., for students as well as for teachers too.

Table 4.104.1: Status of secondary schools: Under different facilities

Sl No.	Facilities	Responses
		Yes/No
1	Availability of Sanitizer and Mask	Yes
2	Availability of Safe Drinking Water in School	No
	Source of Drinking Water: Tap Water	Yes
	Hand Pump	Yes
	Any others (Filter etc.)	No
3	Availability of Electricity in School	Yes
4	Availability of Fans in Classrooms	Yes
5	Availability of Locker facility in School	No

It is observed from Table 4.104.1 that the school doesn't have a locker and safe drinking facilities. However, the school has electricity, a fan, and sanitizer and mask facilities.

Table 4.105: Classroom environment

Sl. No.	Dimensions	Availability		If yes...				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
1	Suitable size of Classrooms	-	No	-	-	-	-	-
2	Seating arrangement (Desk/ Chair-table etc.)	-	No	-	-	-	-	-
3	Space for group work	-	No	-	-	-	-	-
4	Black board	Yes	-	-	-	-	Yes	-
5	White board	-	No	-	-	-	-	-
6	Class room colour and Decoration	-	No	-	-	-	-	-
7	Electricity with fan and Light	Yes	-	-	-	Yes	-	-
8	Ventilation	Yes	-	-	-	Yes	-	-
9	General Cleanliness	Yes	-	-	-	Yes	-	-
10	TLM corner	-	No	-	-	-	-	-

It is indicated from table 4.105 that the majority of the classroom environment dimensions are not available, except blackboard, electricity, ventilation in classrooms, and general cleanliness.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: Our school doesn't have an effective classroom environment due to its lack of infrastructure facilities and other necessary amenities. For instance, schools don't have a suitable

size of classrooms and proper seating arrangements for students.

Responses from Teachers’: In our school we don’t have basic infrastructure, however we focused on local resources.

Responses from FGD: School don't have good seating facilities in the classroom, except clean blackboard.

Response from Parents: School doesn't have basic facilities such as good classrooms, proper seating arrangements, reasonable TLMs, Labs facilities, etc., for students as well as for teachers too.

Table 4.106: Curriculum components used during classroom transaction

Sl No.	Curricular Inputs	Yes/No
1	Black Board related components	Yes
2	Text based Materials	Yes
3	Audio/Video based Materials	No
4	Image/Graphic based Materials	No
5	ICT Instruments	No
6	Locally available TLM	Yes

It is evident from the above table 4.106 that the school has different type of curricular inputs except for audio/video-based materials, text-based materials, image/graphic-based materials, and ICT instruments.

Interviews and FGDs Responses from Head Masters, Teachers, Students and Parents

Response from HM: School have blackboard-related materials and locally available TLMs. Our school doesn't have other TLMs equipment for effective teaching, including technological aids.

Responses from Teachers: The school doesn’t have effective curricular inputs. However, sometimes I used my mobile phone to visualize some topic-related content to understand the students better.

Responses from FGD: No use of ICT during the class teaching and except charts, maps, globes, science kits, and teachers are used locally available TLMs during his teaching.

Responses from Parents: School doesn't have basic facilities such as good classrooms, proper seating arrangements, reasonable TLMs, Labs facilities, etc., for students as well as for teachers too.

Table 4.107: Method of transaction during classroom transaction

Sl No.	Transaction Method	Frequently	Sometimes	Not at All
1	Discussion	Yes	-	-
2	Demonstration	Yes	-	-
3	Field Visit	-	Yes	-
4	Group Discussions	-	Yes	-
5	Peer Learning	Yes	-	-
6	Panel Discussion	-	-	Yes
7	Self-Study	Yes	-	-
8	Guided Study	Yes	-	-
9	Project Work	-	Yes	-
10	Brainstorming	Yes	-	-
11	Assignment	Yes	-	-

It is observed from table 4.107 that teachers followed the majority of transaction methods frequently—however, the field visit method and project work transaction method were used sometimes.

Interviews and FGDs Responses from Head Masters, Teachers, and Students'

Response from HM: Sir, we are using mostly discussion method, peer learning, project work, and constant assignment to the students for their effective learning.

Responses from Teachers': Mostly used the discussion and recitation methods during classroom transactions and in curricular activities, the role-play method, and peer group discussion.

Responses from FGD: Teachers mostly used the discussion method of teaching followed by the storytelling method in M.I.L, English, and History and the participatory method in science subjects.

Table 4.108: Methods of organising curricular activities

Sl No.	Transaction Method	Yes/No
1	Group Work	No
2	Role Play	Yes
3	Sharing their Experience	Yes
4	Use of TLMs	Yes
5	Innovative Practices	Yes

6	Learner Participation	Yes
7	Teacher Response	Yes
8	Scope for interaction among learners	Yes
09	Monitoring and Supervision	Yes
10	Lesson note and Dairy	Yes

The above table shows that the school has organized most of the curricular activities except group work due to the lack of proper classroom space.

Interviews and FGDs Responses from Head Masters, Teachers, and Students

Response from HM: Many teaching-learning practices are being followed in our school for student achievements, such as doubt clear classes, active engagement of students in class, and mostly scope for interaction among students.

Responses from Teachers': Our school has organized remedial or doubt clear classes followed by weekly and monthly tests for student achievement.

Responses from FGD: Our teachers arrange remedial classes to solve our problems and we freely interact with our teachers.

Interviews and FGDs Responses from Head Masters, Teachers, and Students on Innovative Practices

Response from HM: As a teacher, I always encourage learners to self-reflection and focus more on student autonomy during our teaching; particularly, we encourage students to ask questions. However, I am interested in organizing group-based learning activities, but I cannot arrange that due to the lack of a suitable classroom.

Responses from Teachers': I tried to actively involve my student during my classroom transactions, except this encouraged them to self-expression and reflected their ideas as it is.

Responses from FGD: Teachers allowed us to participate in classroom transactions, encouraged us by saying 'Good,' 'Excellent,' and motivated us to participate in the classroom teaching-learning process. We asked questions during the teaching in the classroom. Teachers organized group activities such as various small projects on Science Subjects; we are so happy for that involvement during activities.

Table 4.109: Extracurricular activities in school

Sl No.	Transaction Method	Frequently	Sometimes	Not at All
1	Sports and Games	-	Yes	-
2	Gardening	-	Yes	-
3	Yoga	-	Yes	-
4	Crafts	-	-	Yes
5	Drama	-	Yes	-
6	Debate	-	Yes	-
7	Creative Literacy Activities	-	Yes	-
8	Annual Sports	Yes	-	-
9	Annual Function	Yes	-	-
10	Song Competition	-	Yes	-
11	Elocutions	-	Yes	-

It is found from table 4.109 that the majority of extracurricular activities are followed by school sometimes, except for annual sports and annual functions. However, the school doesn't follow craft activities as extracurricular activities.

Table 4.110: Use of technology/TLM

Sl No.	Tools/Equipments	Availability
		Yes/No
1	LCD Projector	No
2	Overhead Projector	No
3	Internet Facility	No
4	Television	No
5	DVD Player	No
6	Tape Recorder	No
7	Science Kit	Yes
8	Math Kit	Yes
9	Globe	Yes
10	Maps/Charts	Yes
11	e-Pathshala	No

It is observed from table 4.110 that schools don't have the equipment and depend on locally available materials.

Interviews and FGDs Responses from Head Masters, Teachers, and Students

Response from HM: School have blackboard-related materials and locally available TLMs. Our school doesn't have other TLMs equipment for effective teaching, including technological aids.

Responses from Teachers': The school doesn't have effective curricular inputs. However, sometimes I used my mobile phone to visualize some topic-related content to the students understands better.

Responses from FGD: There is no use of ICT during class teaching except for charts, maps, globes, and science kits, and teachers use locally available TLMs during their teaching.

Responses from Parents: The school doesn't have basic facilities such as good classrooms, proper seating arrangements, reasonable TLMs, lab facilities, etc., for students and teachers.

Table 4.111: Pedagogical activities/ practicum

Sl No	Pedagogical Activities	Followed during teaching and learning
		Yes/No
1	Followed simple to complex teaching, learning, process	Yes
2	Recall the previous learning through present discussion	Yes
3	Engaging the students with activity based learning	Yes
4	Encourage the students for asking questions	Yes

Table 4.111 explained that the teachers use almost all pedagogical activities/practicum during the teaching-learning process.

Interviews and FGDs Responses from Head Masters, Teachers, and Students

Response from HM: My colleagues and I are more focused on simple to complex teaching-learning processes & try to engage students with activity-based learning, for instance, providing home assignments, preparing science projects, etc.

Responses from Teachers': Both teachers follow simple to complex teaching and learning processes

during the classroom transaction.

Response from FGD: Teachers organized group activities such as various small projects on Science Subjects for our active involvement and we are so happy about that involvement during those activities.

Table 4.112: Teacher-pupil relationships

SI No.	Approaches	Extent of Practices		
		Frequently	Sometimes	Not at All
1	Establishing cordial relationship	Yes	-	-
2	Enquire about personal problem	-	Yes	-
3	Taking extra classes for weak students	-	Yes	-
4	Health Check Up	Yes	-	-
5	Parental Care	-	Yes	-
6	Scholarship to poor but meritorious students	-	-	Yes
7	Giving scope to pupils to ask questions in the classroom	-	Yes	-

It is evident from table 4.112 that most of the approaches are followed by teachers sometimes, except for cordial relationships and health check-ups with students frequently.

Table 4.113: School community relationship

SI No.	Approaches	Extent of Practices
		Frequently/Sometimes/Not at All
1	Parent teacher meeting	Frequently
2	Invitation to parents during occasions	Sometimes
3	Involvement of community in school development	Not at All
4	Community activities of school	Sometimes
5	Organising awareness programme in the community	Frequently

It is observed from table 4.113 that except involvement of the community in school development, other approaches for school community relationship is followed by the school towards establishing a good school-community relationship.

Interviews Responses from Head Masters, Teachers, and Parents

Response from HM: *We are trying hard to establish a good connection with the nearest community members or parents but due to a lack of proper awareness and interest of parents school-community relationship is not effective yet. But we are inviting parents during SMDC meetings and on different occasions at the schools.*

Responses from Teachers’: *We always invite parents to SMDC meetings and school occasions. However, only a few parents attended that meeting, so an awareness program has needed in the present situation.*

Responses from Parents: *School authority invites us on different occasions such as SMC /SMDC meetings, Independence Day, Republic Day, etc.*

Table 4.114: Extension activities (Extra Mural Lectures, Seminars, Workshops, Study)

Sl. No	Activities	Yes/No
1	Does your school organise extra mural lectures by inviting eminent teachers	No
	<i>If ‘No’ please give reason: Due to lack of fund and infrastructure facilities.</i>	
	Activities	
1	School organise seminars and workshops on the current topics of the major subjects	Yes
2	School organise study tours for better learning	Yes

It is found in table 4.114 that the school is unable to organize extra mural activities due to a lack of funds and infrastructure facilities. However, the school organizes seminars, workshops, and study tours for by students better learning.

Table 4.115: School governance and management

Sl. No	Core Components	Yes/No
1	School has a regular Head Master	No
2	Availability of SMDC/SMC	Yes
3	SMDC is constituted as per the RMSA/SSA norms	Yes
4	SMDC/SMC holds monthly meetings	Yes
5	Proceedings of meeting are recorded	Yes
6	School Cabinet is constituted in school	Yes
7	Grievance redressal cell is available	Yes
8	Complaint/Suggestion box available in School	Yes
9	Toll free numbers written prominently on the school wall	Yes
10	Academic calendar is available in school	Yes
11	School Improvement Plan is available in school	Yes
12	School has registers for different activities: Enrolment, Attendance, SMDC Register, and Cash Register.	Yes
13	Biometric attendance done in school	No

Table 4.115 showed that most of the school's core components for school governance and management are available except regular head master and Biometric attendance for teaching and non-teaching staff.

Table 4.116: Monitoring/ Supervision of secondary schools by the higher authorities

Sl No.	Name of Authorities	Frequency		
		Frequently	Sometimes	Not at All
1	State Level Authorities	-	-	Yes
2	District Project Coordinator	-	Yes	-
3	District Pedagogy Coordinators	-	-	Yes
4	CRC Coordinators	Yes	-	-
5	School Inspectors	-	Yes	-

It is evident from table 4.116 that authorities are visited schools sometimes rather than CRC Coordinators regular basis except for state-level authorities and district pedagogy coordinators.

Major five issues related to school improvement

1. Lack of subject teachers, including lady teachers and non-teaching staff.
2. Lack of basic infrastructure, including school buildings, desks, benches, etc.
3. Lack of lab facilities including Head Master and office room.
4. Lack of staff quarters for teaching faculty.
5. Lack of sanitation facilities, especially toilets for teachers.

Five suggestions for the improvement of the quality of the School

1. Appointing subject-specific teachers and introducing vocational education.
2. It is a basic need to facilitate safe drinking water and mid-day meal for all.
3. Providing basic infrastructure facilities for students, such as desks, benches, etc.
4. Establishing staff quarters for teaching and non-teaching faculty.
5. Special programmes on community awareness relating to students' performance, absenteeism, and dropout.

CHAPTER V

CHAPTER – V

SUMMARY, FINDINGS AND DISCUSSION

5.0. Introduction

In Chapter- I, the researcher focused on the conceptual framework by introducing the overall idea about the study, then a brief profile about scheduled tribes and overall educational participation at present. Further, Chapter I also focused on the background of the study, including details about Samagra Shiksha Abhiyan, the study's rationale, the problem's statement, the study's objectives, research questions, and operational definition of key terms and delimitation of the study. Chapter- II dealt with the review of the related literature of the present study. Chapter- III dealt with the design and methodology of the study. Chapter- IV dealt with the analysis of collected data, interpretation of the result, and discussion. In the present Chapter, the researcher summarizes findings, discussion, feasible recommendations to improve the status of quality education, and suggestions for further research.

5.1. Rationale of the Study

In India, education is a basic right for every child, and as we know, the whole world provides primary education free and compulsory. However, a few countries have achieved excellence in providing quality education, such as Finland, the United States, China, Russia, etc. In this matter, India is under process with its new plans, policies, and programs. One such program is Samagra Shiksha Abhiyan (SSA), by which further holistic education should be possible with the help of subsumes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA), and Teacher Education (TE). However, recently in Odisha, due to low attendance of students in the year 2015-16 to 2018-19, there were 1236 Primary Schools, 42 Upper Primary Schools were closed, and in the middle session, i.e., 2019-20 again, there are 475 Primary Schools, 13 Upper Primary Schools, 3 Government and 3 Government aided high schools were closed (Khabara Odisha, November 2019). The literacy rate among girls compared to boys is very low in the KBK district (Das, 2009; Sailabala & Mahesh, 2008; Suthar, et al., 2016). Lack of proper infrastructure is the school's main drawback and weakness and affects the quality of education and students' comfort level (Geddam, 2015; Naik & Ragi, 2015). Some schools have insufficient pure drinking water (Naik & Ragi, 2015; Patra, 2016). Most children reported that they frequently faced health problems like fever, jaundice, and stomach pain due to unhygienic conditions in schools (B, Swaroopa, 2007).

The difficulties faced by the tribal children in schools are many; these are poor classroom facilities, lack of ventilation in the classroom, lack of drinking water, lack of toilet facilities, long-distance school, lack of teachers, rude teacher behaviors, and teachers are involved in their work (B, Swaroopa, 2007; Dubey, Trigunait and Dwivedi, 2014; Mohalik, 2011). Generally, tribal areas are situated on hills with deep forest areas, so the basic problems are unavailability of electric connection, water supply, poor transportation facilities, and mobile network. The children of these habitations have to walk kilometers, do ups and downs from hilly areas through very rough rocky paths, and cross bridgeless rivers/streams during the rainy season. The dropout rates in the schools remain high in the tribal backward regions due to: lack of communication facilities, schools having single teachers, teachers in interior areas neglecting their duties, irregular supply of mid-day meals, and the school environment does not attract the tribal students, some schools are not having their buildings and absence of tribal cultural and regional materials, poor economic condition, lack of conducive learning environment at home, the attitude of parents towards schooling (Biswas & Krishnan, 2017; Dash, 2015; Ramdas Rupavath, 2016; Rout, 2015). There are several causes of dropout among tribal girls like: agricultural necessities, call to sit with younger babies, observance or rituals or fairs or festivals wither at household or nearby village, call to company her mother for collection of forest product, i.e., collection of "tola and Mahula" call for making leaf cups and plates, call for going to a nearby market for the selling of forest products and purchasing weekly grocery, dress, and other requirements, call to remain at home because of illness of family members (Biswal, 2013; Soren, 2016; Suther, Chauhan, and Meena, 2016). In some cases, the family's positive perception of their girls' education is mostly high classes, and some parents regularly send their children to school (Nayak, 2014; Puan, et al., 2013). The tribal students face problems relating to the medium of instruction; for instance, they understand the Odia language but cannot understand teaching (Behera, 2015). There is a lack of awareness about the government scheme among parents (Shrama, 2017). Due to Public-Private Partnerships in education, most of the community is engaged in the school to educate the tribal children (Sahu, 2013).

From the above analysis and the review of related literature in chapter II, it has been concluded that there is a lack of studies conducted on Secondary Schools based on the Samagra Shiksha Abhiyan program, especially in tribal districts of Odisha. The studies also didn't focus on all components and dimensions of quality education. So, the researcher is interested in conducting a study on Quality Education in Secondary Schools of Tribal

Districts of Odisha in the Context of Samagra Shiksha Abhiyan. From the above analysis and the review of related literature in chapter II, there is a methodological gap that most studies followed survey design, and fewer studies focused on the method triangulation approach. So there is a need for method triangulation, i.e., Survey design with an In-depth case study design for a better understanding of the quality concerns at ground level. Hence, the researcher seeks to appraise the quality of education and the issues related in such secondary schools with regard to curricular inputs; curricular and co-curricular transactions; innovative classroom practices; assessment practices; teacher-pupil relationships; school-community relationships; extension activities such as: lectures, seminars, workshops, study tours, etc. school environment; infrastructure and residential facilities; and carrier counseling and placement cell. The suggestions shall be framed to increase quality education for ST students in the state and the country in general. Here, the study title fits "Quality Education in Secondary Schools of Tribal Districts of Odisha in the Context of Samagra Shiksha Abhiyan."

5.2. Statement of the Problem

Considering the emphasis of Samagra Shiksha Abhiyan on the provision of quality education that major focus is on enhancing learning outcomes of students, bridging social and gender gaps in school education, ensuring equity and inclusion at all levels of school education, ensuring minimum standards in school provisions an attempt has been made in this study to find out the *"Quality Education in Secondary Schools of Tribal Districts of Odisha in the Context of Samagra Shiksha Abhiyan."*

5.3. Objectives of the Study

1. To make a status survey of infrastructure facilities for students and employees available in secondary schools in tribal districts.
2. To examine what extent the equity and inclusive issue have been addressed by the school in terms of enrolment, retention & achievement.
3. To find out classroom transaction process in tribal areas with reference to teacher performance.
4. To make in-depth studies of selected secondary schools to explore quality practices.

5.4. Research Questions

The study addressed the following research questions:

1. What extent the infrastructure arrangement including residential facilities for students and employees available in the schools under the study, are contributing for expanding quality education?
2. What is the status of equity and inclusion in enrolment, retention & achievement with respect to gender, category and CWSN in the schools of tribal districts of Odisha?
3. What are the classroom transactions and assessment techniques used for learning?
4. What is the over-all performance for promoting quality education in the schools of tribal areas?

5.5. Operational Definition of Key Terms

Quality Education: Quality is a systemic trait rather than only a feature of instruction or attainment. It is also part of the value dimension. In this study, quality education means infrastructure arrangements, including residential facilities, equity and inclusion in enrolment concerning gender and socio-economic status and CWSN, classroom transactions such as assessment for learning, of learning and as learning, students learning outcomes, and school community relationship.

Secondary School: This study focused on only secondary schools, i.e., classes IX and X.

Tribal Districts: In Odisha there were thirteen tribal districts as per the governmental data i.e., Balasore, Mayurbhanj, Keonjhar, Sambalpur, Sundargarh, Deogarh, Gajapati, Kalahandi, Rayagada, Koraput, Malkangiri, Nabarangpur, Kandhamal. The undivided districts of Koraput, Bolangir and Kalahandi of Odisha state (Popularly known as KBK districts) have since 1992-93 been divided into eight districts i.e., Kalahandi, Nuapada, Bolangir, Sonapur, Koraput, Malkangiri, Nabarangpur, and Rayagada. In this study Rayagada, Kalahandi, Nabarangpur, Koraput and Malkangiri tribal districts are selected for further study.

Samagra Shiksha Abhiyan: It is an overarching program for the school education sector extending from pre-school to class 12. It has been, therefore, prepared with the broader goal of improving school effectiveness measures in terms of equal opportunities for schooling and equitable learning outcomes.

5.6. Delimitations of the Study

- The study is delimited to tribals as well as tribal blocks and districts such as Bissam Cuttack block from Rayagada, Bhawanipatna block from Kalahandi, Papadahandi block from Nabarangpur, Boipariguda block from Koraput, and Podia block from Malkangiri of Odisha only.
- Only Secondary Schools i.e., class IX and X students, Head Masters, Teachers, and Parents have participated in this research
- The study is delimited to check the status as per the norms of Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Samagra Shiksha Abhiyan (SSA).

5.7. Methodology

The objective of the study is to inquire into or assess the quality of education at the secondary school level in tribal districts of Odisha with certain parameters. To achieve the study's core objectives, the researcher used the survey method to carry out the research. Further to collect the in-depth data from secondary schools, the researcher has chosen one school from each district through the case study method. The procedure of selecting schools as a case was before fixing with the last three years 10th annual exam result declared by the Board of Secondary Education, Odisha and top scored school selected as a case. The researcher intended to collect data through a case study to support the data derived from the survey method. By looking into the process, the researcher used the triangulation method, i.e., survey-cum-case study, to conduct the research.

5.7.1. Population and Sample of the Study

The population of the study consists of all thirteen (13) tribal districts secondary schools of Odisha run by the Odisha Government, particularly the Board of Secondary Education (BSE). The informants include all the stakeholders of such schools, such as beneficiary students, teachers, heads of schools, and parents.

The multistage sampling procedure technique is used for this study. The sample of the study, under the category of secondary schools, consists of Fifty (50) Secondary Schools run by the Odisha government situated in Five (5) Tribals Districts along with one (1) Block from each district of Odisha selected through simple random technique. Ten (10) teachers from five case selected schools and all the heads of these schools were included in the sample. 10 (Ten)

students and 02 (Two) Parents from each secondary school (applicable only in the case study method) were selected purposively.

5.7.2. Procedure adopted in Data Collection

In the present study, to receive relevant evidence or data, the researcher collected data from respondents, i.e., Head Masters, Teachers, Students, and Parents, by personal visit to each district. To collect information, the researcher selected fifty (50) secondary schools from five (5) tribal districts of Odisha and various stakeholders using multistage sampling techniques.

The researcher collected the data in two phases, which took 100 days, i.e., (from 16/02/2021 to 27/05/2021) together in participatory mode. In the first phase, the researcher collected the data through a survey method from fifty (50) secondary schools in five (5) tribal districts of Odisha. It was primarily concerned with five (5) blocks such as the Bissam Cuttack block from Rayagada, Bhawanipatna block from Kandhamal, Papadahandi block from Nabarangpur, Boipariguda block from Koraput, and Podia block from Malkangiri districts of Odisha. After the first phase of the survey, the researcher analyzed the last three years (2017-20) of academic achievement of class X students from ten (10) secondary schools in each district. Further, in the second phase, the researcher selected one (1) secondary school out of ten (10) secondary schools from each district as a case based on their highest average academic achievement in class X. Overall, permission was sought from the school to conduct the study. At first, the researcher took due permission of the BEOs and Head Master and then gradually got access to the other informants like students, teachers, and parents. As many as ten parents were also explored incidentally during the Case study.

The researcher collected data from all relevant sources with the help of Questionnaire-cum-Checklist, Classroom Observation Schedule, and Interview Schedule for Head Master, Teachers' and Parents. During field activities, the researcher conducted FGD with Students, took photographs, and maintained field dairy for taking necessary notes of the entire research work.

5.7.3. Techniques of Data Analysis

Firstly, data were entered into M.S. Excel with proper coding to analyze the collected data. The overall data analysis process has done through the IBM SPSS 20 licensed version provided by the University of Hyderabad, Telangana, India. The quantitative technique

includes frequency and percentage analysis. Interviews and Focus Group Discussion data was analyzed manually using M.S. Word and further coding and interpreting the data properly.

5.8. Major Findings

For meaningful understanding, the researcher corroborated the Interviews and FGDs responses with case study data. Further, both objective and research questions wise findings of the study are presented below:

A. Overall Profile of Fifty Secondary Schools

Overall Profile of Fifty Secondary Schools

- The majority (above 60%) of secondary schools in tribal districts of Odisha have 1 section for classes IX and X respectively.
- Most (54%) of secondary schools in class IX have more than 41 or above 100 students in a single class, which overlaps the SSA and NEP 2020 regulations. However, over-lapping highly exceeds in class X, i.e., 62% of schools have more than 41 or above 200 numbers of students in a single class.
- The majority (70%) of secondary schools have classes from I to X, which are integrated classes from primary to secondary schools except for interlinking with teacher education institutions as per the Samagra Shiksha Abhiyan objectives & very few (6% to 12%) secondary schools have classes, i.e., VI to X, IX to X, & VII to X.
- Most of (98%) Secondary Schools in the tribal districts of Odisha were located at more than 5km from student habitation & due to hilly areas, a student is unable to access the class regularly, especially during the rainy & summer seasons.

Research Question 1: *What extent the infrastructure arrangement including residential facilities for student employees available in the schools under the study, are contributing quality education?*

Research Objective 1: *To make a status survey of infrastructure facilities for students and employees available in secondary schools in tribal districts.*

B. Status of Infrastructure Facilities

Details about the Secondary Schools Arrangement

- The majority (60% to 98%) of secondary schools have Classrooms, Head Master Rooms, Office Rooms, Libraries, Staff Common Rooms, Toilet Blocks for Boys and Girls (92%), Boundary walls (58%), Drinking Water Facilities (86%) but the overall conditions of all those arrangements are under the management and poor other known as adjust with the other rooms (in case of classroom and office room only). Most Secondary Schools don't have Reading Rooms (58%), Play Ground (60%), Student Hostel (76%), & Teachers (68%), Computer Rooms (56%), and Ramps and Railing for an Inclusive Environment (64%) Kitchen Shed (58%), and Garden (58%) & majority of the schools don't have Staff Quarters, Medical Sick Rooms, Resource Room, Separate Toilet for Female teachers, Art/Craft/Culture Room, Girls Hostel, and Boys Hostel.

Status of secondary schools: Curriculum Components & Facilities

- Most secondary schools don't have language, social science, e-Pathshala accessibility, or computer labs (82%). However, 52% of schools don't have a science lab in their schools. Further, the majority (above 80%) of secondary schools have library books and science equipment.

Staff position in secondary schools: Teaching Staffs

- The majority of secondary schools in tribal districts of Odisha don't have Head Master (60%), & other schools run with half of their subject teachers, i.e., PCM (67%), CBZ (50%), Classical Teachers (52%) & PET (56%) which will have the negative impact on quality school education.
- Most (88.2%) of secondary school teachers have posted on a regular scale.
- Only 27.92% of female teachers are available in a teaching position in tribal districts compared to male teachers, i.e., 72.07%.
- Only 9.1% of ST categories of teachers are available in teaching positions in tribal districts as compared to other categories of teachers.
- Most secondary schools don't have a proper sanctioned post for non-teaching staff, whichever is sanctioned from that majority of the positions still vacant such as Clerk (78%), Peon (69%), and Watchman/Security (81%).

Status of secondary schools: Under different facilities

- The majority of secondary schools in tribal districts of Odisha are still facing problems related to basic facilities such as safe drinking water (60%), playground on school premises (60%), locker facilities in school (72%), Children with Special Need (CWSN) Students (86%), Internet Connectivity & LAN connectivity (98%), Computer facilities for student (78%), Printers (68%) and Hostel Facilities (72%).
- However, other facilities are somehow available such as Tap Water (50%), Hand Pump (46%), Electricity (78%), Fans (76%), Well Ventilated (82%), and Well Lighted (80%).

Status of secondary schools: Student Classroom Ratio (SCR) and Pupil Teacher Ratio (PTR)

- 4% of secondary schools have no proper classrooms for 22-40 in class IX and 9-47 in class X numbers of students.
- The majority of secondary schools, i.e., above 50% (40 and up to 182 students for one classroom) to 58% (40 and up to 203 students for one classroom) in classes IX and X have overlapping student classroom ratios.
- The majority (60%) of secondary schools have a good pupil-teacher ratio (as per the NEP & SSA regulation, i.e., 1:40). However, still, there are 40% of secondary schools where teacher pupil ratio is high.

Status of secondary schools: Classroom Environment

- Almost all dimensions for an effective classroom environment were available, such as the suitable size of classrooms (84%), seating arrangements (78%), space for group work (68%), whiteboard (34%), classroom color and decoration (28%), electricity with fan and light (72%), proper ventilation (94%), general cleanliness (98%) and TLM corner (42%). However, except for blackboard (94%), most of the secondary schools' classroom environment conditions of those dimensions are manageable, poor, very poor, and unavailable.

Research Questions 2: *What is the status of equity and inclusion in enrolment, retention & achievement with respect to gender, category and CWSN in the schools of tribal districts of Odisha?*

Research Objectives 2: *To examine what extent the equity and inclusive issue have been addressed by the school in terms of enrolment, retention & achievement.*

C. Status of Equity and Inclusion at Secondary School Level

Overall Enrolments in all five districts of Class IX and X

- The overall enrolment rate was increased in class IX independently. However, the class X enrolment rate decreased from 2729 students' in 2017-18 to 2455 in 2019-20. Further, the transition gap rate from class IX to X is an all-time high and constantly increasing, i.e., 421 students' which is not a good indicator for school enrolment.
- Boys' enrolment was more in both classes than girls' students, and the differences are 220 in 2015-16 & 252 in 2019-20 in class IX and 326 in 2015-16 and 389 in 2019-20 in class X.

Overall Enrolments in all five districts of Class IX (Category wise)

- The enrolment rate in every category-wise student was ups and down year-wise. However, in the case of CWSN, students were constantly decreased year-wise.
- The Scheduled Tribe Students enrolment is the highest among other categories of students, followed by Scheduled Caste Students, Other Backward Categories, General, Minorities, and Children with Special Need category students'. However, CWSNs categories of students' were the lowest & with no enrolment category over the years.

Overall Enrolments in all five districts of Class X (Category wise)

- The enrolment rate in every category-wise student was ups and down year-wise. However, in the case of CWSN categories, students show a constant decreasing year-wise.
- The Scheduled Tribe Students enrolment is the highest among other categories of students, followed by Scheduled Caste Students, Other Backward Categories, General, Minorities, and Children with Special Need category students'. However,

CWSNs categories of students' were the lowest & with no enrolment category over the years.

Overall Retention and Dropout from all five districts

- The overall retention rate of students in secondary schools in tribal districts of Odisha is up and down. However, the overall retention rate decreased as compared to that of the previous year.
- The dropout rate in secondary schools of tribal districts of Odisha is increasing year-wise from 2016-17 to 2019-20.
- Scheduled Tribe category students' are the highest dropout compared to other categories of students.
- The dropout rate is the highest, particularly among ST boys' followed by other categories compared to girls' students.

Overall Achievements in Class X of all five districts

- The overall pass rate results of girls' students are slightly high, i.e., 5.6% compared to boys' counterparts. However, the overall failure rate of both boys and girls is somehow the same.

Special provision for Girls' SC, ST, and CWSN

- Most (96%) secondary schools don't adhere to the norms of Inclusive Education for CWSN in appointing special teacher educators and related learning environments.
- Almost all (100%) secondary schools have special provisions for Girls, SCs, STs, Minorities, and CWSN students in terms of Scholarships, Cycles, and Free Textbooks.

Measures undertaken to address the educational issues of children belonging to SCs, STs, Minorities and Girls

- Almost all schools have undertaken measures to address the educational issues of children belonging to SCs, STs, Minorities, and Girls. However, the most common measures taken by the majority of the schools are under these heads such as Parents'

awareness through SMDC meetings & personal consultation with parents and counseling to the Student (58%), and the second measure is door-to-door visits and meeting with parents (24%).

- Only 2% of secondary schools don't have any measures to address the educational issues of children belonging to SCs, STs, Minorities, and Girls.

Special measures undertaken to address the following issues of girls

- The most common measures taken by most schools are Parents' awareness through SMDC meetings and personal consultations. Counseling to the students & consultation with local and higher authorities regarding matters (72%).
- Only 8% of secondary schools don't have any undertaking measures to address the educational issues of girls.

Research Questions 3: *What are the classroom transactions and assessment techniques used for learning?*

Research Objectives 3: *To find out classroom transaction process in tribal areas with reference to teacher performance.*

D. Classroom Transaction Process

Classroom Transaction Processes with Reference to Teachers Qualification: Introducing lesson in class

- The majority of teachers with qualifications, i.e., PG and B.Ed., are performing excellently in introducing class lessons compared to teachers with Degree and B.Ed. qualifications.
- Teachers mostly used aspects above average during introducing lessons, looking at classes to settle before teaching (52.7%), engaging students to create interest in the topic (41.8%), creating readiness among learners (45.4%), and using an appropriate strategy for introducing the topic (47.2%).
- Teachers mostly used aspects of the excellent way of introducing lessons, testing previous knowledge before teaching (41.8%), and stating the topic before teaching (56.3%).

Presenting the Lesson in Class

- Teachers mostly used aspects of the excellent way of presenting the lesson in classes are possess mastery over content knowledge (54.5%), presenting information in a clear and organized manner (50.9%), explaining simple concepts with familiar language (54.5%), presents in an audible voice to every learner (81.8%).
- Only a few aspects used by above-average teachers while presenting the lesson in classes were based on what students already know (52.7%) and illustrated concepts with various examples from the context (50.9%).

Questioning and Reinforcement

- Teachers mostly used aspects above average during questioning and reinforcement, prompting learners for inquiry (40%), asking questions with precision and clarity (50.9%), distributing questions throughout the whole class (43.6%), and giving appropriate reinforcement (52.7%).
- Only one aspect is used by teachers averagely during questioning and reinforcement, i.e., allowing a reasonable time for students to answer the question.

Use of Teaching Learning Materials

- Teachers mostly used aspects above average during the use of TLMs, are writing legibly on the blackboard (56.3%), using appropriate teaching-learning methods (60%), and using locally available things as TLMs (76.3%).
- Only one aspect teachers used to average and excellently in TLMs is using different activities (34.5%) and giving examples from real-life situations (40%).

Relating to Interaction with Students

- Teachers mostly used aspects above average relating to interaction with students in classes were interacting with each student (43.6%), offering personal support to learners at the time of difficulty during class activity (50.9%), activating learners during the class (54.5%), and encourage pair work/group work and ensures peer learning (27.2%).
- The only a few aspects teachers used on average and excellently during interaction with students in classes are allowing meaningful peer interaction (47.2%) and maintaining order in class (90.1%).

Relating to Use of Reflections and ICT

- Teachers mostly used aspects above average such as the use of reflections and ICT in classes and teaching how to learn a topic (47.2%), suggesting other learning materials for references (38.1%), use of ICT in the classroom (18.1%), encourage learners for asking questions (61.8%), encourage learners for self-reflection (45.4%), encourage divergent thinking (52.7%), focuses on the process of learning in the class (47.2%), and relates the subject with other school subjects and summarizes at the end of the class (52.7%).

Assessing Learning in Class

- Teachers mostly used aspects above average during assessing learning in classes are assessing learners understanding throughout the class (47.2%), asking questions as per objectives of the lesson (49.1%), giving importance to learners' work in assessment (43.6%), helps the learner in self-assessment (38.1%), provides home assignments that require inquiry (67.2%), and provides feedback (45.4%).

Personality of Teacher

- Almost all teachers' overall personalities were excellent along with all other aspects such as remaining active throughout the class, dressing properly, enjoying the classroom teaching, remaining empathetic, ensuring democratic practice in the classroom, seeking to co-operate with the students, ensuring an inclusive classroom environment, maintain flexibility in the movement.

Method of transaction during classroom transaction and curricular and extracurricular activities

- The majority (98%) of teachers frequently used discussion methods and assignments (76%) during classroom transactions.
- Sometimes majorly used methods of the transaction by teachers are demonstration (72%), group discussion (76%), peer learning (80%), panel discussion (58%), self-study (78%), guided study (80%), project work (68%), and brainstorming (70%).
- The majority (62% up to 98%) of secondary school teachers organized different types of extra-curricular activities regularly except for field visits.

- Except for Craft related extracurricular activities, other activities are followed by almost all secondary schools in tribal districts of Odisha.

Use of Technology/TLM

- The majority (80% above up to 100%) of secondary schools don't have LCD projectors, Overhead Projector, Internet facilities, Television, DVD players, Tape Recorder, and e-Pathshala. However, others TLMs are available such as 92% of schools have Science Kit and Math kit, 96% have Globe, and 94% have Maps/Charts & majorly use it sometimes.
- The majority of secondary schools don't have technological elements. Due to this, access to technology is still a daydream for Odisha secondary schools situated in tribal areas.

Research Questions 4: *What is the over-all performance for promoting quality education in the schools of tribal areas?*

Research Objectives 4: *To make in-depth studies of selected secondary schools to explore quality practices.*

E. Overall Performance for Promoting Quality Education

Training package for teachers: Details of training programmes and overall ratings on training programme

- The majority of secondary school teachers attained training programs provided by the government as well as NGOs. However, only 2% of secondary school teachers under block grant status could not attend any training program from Government and NGOs.
- The majority (96%) of secondary school teachers agreed that whatever the training program they attended was under-assessed and evaluated through both written and oral.
- The majority (82%) of secondary school teachers rated the training program as good.

Teacher-Pupil Relationships

- The majority (72% above or up to 88%) of teachers are interested and the extent of practices to establish good teachers pupil relations through establishing cordial

relationships with students (88%), concerning the student health check-up (72%), enquire about student personal problems (74%), sometimes taking extra classes for weak students/slow learners (84%), support like parental care (72%), giving scope to pupils to ask questions in the classroom (76%).

School Community Relationship

- The majority of secondary schools are well concerned about the importance of school community relationships through organizing activities frequently and sometimes. These are parent-teacher meetings (86%), an invitation to parents during occasions (68%) on an often basis, involvement of the community in school development (50%), community activities of the school (82%), and organizing awareness program in the community (56%) on sometimes basis.

Extension activities (Extra Mural Lectures, Seminars, Workshops, Study) and Career Counselling and Placement Cell

- The majority (60%) of secondary schools cannot organize extension activities, seminars and workshops, and study tours for students due to a lack of funds, planning, and necessary training.
- Half of the (54%) secondary schools have career counseling and placement cell for students to organize programs related to future employment and higher education (40%).

School Governance and Management

- The majority (74% above or up to 100%) of secondary schools have SMDC/SMC (100%) and constitute as per the RMSA/SSA norms, SMDC/SMC holds monthly meetings, and all proceedings of meetings are recorded, schools have all registers for different activities (100%), school cabinet is constituted in school, complaint/suggestion box available, toll-free numbers are written prominently on the school wall, academic calendar in school, school improvement plan.
- However, the majority of secondary schools don't have regular Head Teacher (60%), grievance redressal cell (60%), and biometric attendance (100%).

Supervision of training programmes by the higher authorities

- CRC Coordinators (86%) frequently monitor the secondary schools' records through personal visits. However, other authorities visit very rarely.

Major five issues related to school improvement

- The majority (72%) of secondary schools have significant issues related to school improvement are Lack of basic infrastructure, including other facilities such as cycle stands, hostel facilities, staff quarters, Labs, smart classrooms, library rooms and books, mini stadium, sanitation, safe drinking water, suitable school buildings, playground, & boundary wall.
- The second major issue is Lack of teaching & non-teaching staff, including special teachers (for inclusive & language) and the Head Master Post.
- The third major issue is Lack of community cooperation and awareness related to schooling.
- The fourth major issue is communication problems from home to school & is language problems lead to communication problems between teachers and students. Domestic work leads to students' absenteeism. Further, in the same line, issues with problems due to the deputation of teaching and non-teaching staff.
- The fifth major issue with imbalance feelings among primary and secondary teachers due to their school uniform, salary, and qualification, Lack of Craftwork, research project work for teachers, Lack of beautification of the school campus, and secondary students performing unsatisfactorily due to their Lack of proper elementary education.

Five suggestions for the improvement of the quality of the school

- The majority (70%) of secondary schools have important one suggestion for improvement of the quality of the schools such as providing basic infrastructure & facilities including hostel facilities for boys and girls on urgent basis, toilets, safe drinking water, playground, repair school buildings including additional classroom buildings and own land for it, boundary wall, sanitation, & staff quarters.
- Second suggestion: Appointing the teachers (MLE teachers, lady teachers), School Counsellor, non-teaching & regular Head Master Post.

- Third suggestion: By organizing an awareness program for parents on school education.
- Fourth suggestion: By providing Mid-day-Meal at the secondary school level & transportation facilities for students, especially in tribal areas.
- Fifth Suggestions: One school, one uniform for all teachers and one staff room and canteen for all. No need to engage teachers in out-of-school activities such as (Covid 19 duty in railway stations, Cemetery areas, & others). However, teachers also suggest strengthening primary education for better secondary school education.

Research Objectives 4: *To make in-depth studies of selected secondary schools to explore quality practices.*

For meaningful understanding, the researcher presents case findings on different quality heads of the schools in a systematic way. The details of the findings given are below.

F. Case Studies of Selected Secondary Schools

CASE- 1: Rayagada: Bissam Cuttack Block

Name of the School: Govt. High School Bissam Cuttack, Rayagada

Mostly available Tribes within School Location: Dongria Kondh Tribes

CASE- 2: Kalahandi: Bhawanipatna Block

Name of the School: Govt. High School Talbelgaon

Mostly available Tribes within School Location: Kutia Kondh Tribes

CASE- 3: Nabarangpur: Papadahandi Block

Name of the School: Govt. New Harischandra High School, Tumberlla

Mostly available Tribes within School Location: Paraja Tribes

CASE- 4: Koraput: Boipariguda Block

Name of the School: Ramagiri High School, Ramagiri

Mostly available Tribes within School Location: Bhunia, Durua and Paraja Tribes

CASE- 5: Malkangiri: Podia Block

Name of the School: Madhusudhan High School, Podia

Mostly available Tribes within School Location: Koya Tribes

Different Quality Practices

(a) Pupil Teacher Ratio (PTR) & Availability of teaching and non-teaching staffs

CASE – 1: Responses: Rayagada

- The school has a good Pupil Teacher Ratio (PTR), i.e., 31:1, and followed Samagra Shiksha Abhiyan norms, i.e., 40:1.
- There were 11 teachers available in this school, among which one Head Master, four TGT teachers, three PGT teachers, one Degree with CT teachers, one PET teacher, and three vocational teachers. Further, the school has three non-teaching staff, one clerk, and two peons.

CASE – 2: Responses: Kalahandi

- The school has a good Pupil Teacher Ratio (PTR), i.e., 22:1, and followed Samagra Shiksha Abhiyan and NEP norms, i.e., 40:1. Further schools have a good number of classrooms as per the student ratio.
- There were 3 teachers available in this school, one In-charge Head Master and two PGT teachers without any non-teaching staff.

CASE- 3: Responses: Nabarangpur

- The school has a good Pupil Teacher Ratio (PTR), i.e., 33:1, following Samagra Shiksha Abhiyan, and NEP norms, i.e., 40:1. Further schools have a good number of classrooms as per the student ratio.
- There were 5 teachers available in this school, one Head Master, 3 PGT teachers, and one PET teacher without any non-teaching staff.

CASE- 4: Responses: Koraput

- The school has a good Pupil Teacher Ratio (PTR), i.e., 38:1, following Samagra Shiksha Abhiyan, and NEP norms, i.e., 40:1.

- There were 7 teachers available in this school: one Head Master, 6 TGTs, and one PET teacher with one non-teaching staff (clerk).

CASE – 5: Responses: Malkangiri

- The school has a good Pupil Teacher Ratio (PTR), i.e., 24:1, following Samagra Shiksha Abhiyan, and NEP norms, i.e., 40:1.
- There were 07 teachers available in this school: one Head Master, 04 TGTs, 02 PGT teachers, and one PET teacher. Further, the school has four non-teaching staff one clerk, two peons, and one watchman.

(b) Details about school arrangement

CASE – 1: Responses: Rayagada

- The school has limited basic facilities, and the conditions of those facilities are mostly manageable, and few have poor conditions. The limited basic facilities are Classrooms, HM Room, Office Room, Labs, Staff Common room, Student's Hostel, Computer room and separate toilet for students, drinking water facility, boundary wall, kitchen shed, and hostel facilities for boys. Further, all the stakeholders, i.e., Head Master, Teachers, Students' and Parents, agreed that the above facilities were available in school.

CASE – 2: Responses: Kalahandi

- Most of the school arrangements were in good condition except playground, students' hostel, staff quarters and ramp and railing for an inclusive environment, separate toilet for female teachers, resource room, auditorium/multipurpose hall, sick medical room, art/craft/culture, and girls' hostel were not available in school. Further, all the stakeholders agreed that the above facilities were available in the school.

CASE- 3: Responses: Nabarangpur

- The school arrangement was in manageable condition except for classrooms, playground, computer room, boundary wall, and separate toilet block for boys and

girls were in good conditions and above responses matched with stakeholders' responses.

CASE- 4: Responses: Koraput

- Mostly the school arrangement was in manageable and poor conditions except for the student hostel, and the above statement was matched with Head Teacher, Teachers', Students' and Parents' responses.

CASE – 5: Responses: Malkangiri

- Almost all the school arrangements were in poor and very poor conditions, and the above statement was matched with Head Master, Teachers', Students' and Parents' responses. However, the school has hostel facilities.

(c) Curriculum Components & Facilities

CASE – 1: Responses: Rayagada

- Almost all curricular components were available in the school, such as library books, science lab, science equipment, computer lab, and e-Pathshala. Furthermore, all stakeholders agreed on the availability of curriculum components in school.
- The school has electricity, fan facilities, sanitizer, and mask facilities. However, the school is struggling with basic facilities such as safe drinking water because of mixed with iron components, playground, and locker facilities for teachers.

CASE – 2: Responses: Kalahandi

- Almost all curricular components were available except e-Pathshala in school. Furthermore, all stakeholders positively agreed with the availability of curriculum components in school.
- The school has electricity, fan facilities, sanitizer, and mask facilities. However, schools are struggling with basic facilities such as safe drinking water because of mixed with iron components, playground, and locker facilities for teachers.

CASE- 3: Responses: Nabarangpur

- Schools have library books, science equipment, and computer labs. Hence, stakeholders also agreed with the availability of the essential components in school.
- The school has electricity, fan facilities, and sanitizer and mask facilities. However, the school is struggling with basic facilities such as safe drinking water and locker facilities for teachers.

CASE- 4: Responses: Koraput

- The school has only library books and science equipment, and the stakeholders state the same responses.
- The school has electricity, fan facilities, sanitizer, and mask facilities. However, the school is struggling with basic facilities such as safe drinking water and locker facilities for teachers.

CASE – 5: Responses: Malkangiri

- The school has only library books and science equipment, and the stakeholders state the same responses.
- The school has electricity, fan facilities, and sanitizer and mask facilities. However, the school is struggling with basic facilities such as safe drinking water and locker facilities for teachers.

(d) Classroom Environment

CASE – 1: Responses: Rayagada

- Almost all dimensions for the classroom environment of the school are available and under manageable conditions except general cleanliness which is in excellent condition, Others such as Suitable size of Classrooms, Seating arrangement (Desk/ Chair-table, etc.), Space for group work, Blackboard, Electricity with fan and Light, Ventilation. Further, all the stakeholders, i.e., Head Master, Teachers, Students' and Parents, agreed with the above facilities available in the school.

CASE – 2: Responses: Kalahandi

- The majority of the dimensions for an effective classroom environment for the school were mostly in good and excellent conditions. Furthermore, all the stakeholders have positively responded about the availability of all facilities in good condition.

CASE- 3: Responses: Nabarangpur

- Most dimensions for an effective classroom environment were available, and the conditions of those dimensions were good, as well as manageable. The stakeholders also agreed with the availability and conditions of the dimensions.

CASE- 4: Responses: Koraput

- The majority of the classroom environment dimensions are unavailable, except blackboard and electricity facilities, i.e., up-to for office room only, and the same responses stated by the stakeholders.

CASE – 5: Responses: Malkangiri

- The majority of the classroom environment dimensions are unavailable, except for blackboard and electricity facilities, and the stakeholders state the same responses.

(e) Curriculum components used during classroom transaction

CASE – 1: Responses: Rayagada

- The school has most of the curriculum components, such as Blackboard-related components, text-based materials, audio/video-based materials, ICT instruments, and locally available TLM, and also all the stakeholders (Head Master, Teachers, and Students) concerned with the availability and usability of curriculum components by the teachers' during classroom transactions.

CASE – 2: Responses: Kalahandi

- Except for whiteboard-related components, text-based materials, and locally available TLM, other curriculum inputs are not available in school. However,

teachers used their laptops during the teaching-learning process, and all the stakeholders were concerned with the availability and usability of curriculum components by the teachers during classroom transactions.

CASE- 3: Responses: Nabarangpur

- The school has all curriculum components such as whiteboard-related, text-based materials, audio/video, image/graphic, ICT instruments, and locally available TLM. The stakeholders were also positively concerned that the above curriculum components were available and used by teachers during classroom transactions.

CASE- 4: Responses: Koraput

- The school has blackboard-related components, text-based materials, and locally available TLMs and the same responses stated by the stakeholders. However, one teacher responded, *"I used my mobile phone during my teaching-learning process for effective teaching."*

CASE – 5: Responses: Malkangiri

- The school has very a few curriculum components and teachers used during classroom transactions, such as blackboard-related components, text-based materials, and locally available TLMs, and the same responses stated by the stakeholders. However, one teacher responded, *"I used my mobile phone during my teaching-learning process for effective teaching."*

(f) Method of transaction during classroom transaction

CASE – 1: Responses: Rayagada

- The teachers frequently used methods of the transaction: discussion, demonstration, project work, and assignment during classroom transactions. All the stakeholders' (Head Master, Teachers, and Students) responses matched with the above classroom transaction process.

CASE – 2: Responses: Kalahandi

- The teachers frequently used methods of the transaction: discussion, demonstration, guided study, and assignment during classroom transactions. All the stakeholders'

(Head Master, Teachers, and Students) responses matched with the above classroom transaction process.

CASE- 3: Responses: Nabarangpur

- The teachers frequently used methods of the transaction were discussion, project work, and an assignment, which matched with stakeholders' responses.

CASE- 4: Responses: Koraput

- Teachers frequently used methods for the classroom transaction were discussion, peer learning, assignments, and the same responses stated by the stakeholders.

CASE – 5: Responses: Malkangiri

- Teachers frequently used many transaction methods such as discussion, demonstration, peer learning, self-study, guided study, brainstorming, and assignment; the same responses were stated by the headmaster, teachers, and students.

(g) Methods of organising curricular and extracurricular activities

CASE – 1: Responses: Rayagada

- The school organized almost all the curricular and extracurricular activities, and all stakeholders (Head Master, Teachers, and Students') agreed with those activities. However, the common curricular activities teachers applied were the *play method, group assignments, asking questions related to that subject matter, activity-based and cognitive-based teaching, using my mobile phone, and active engagement of students through organizing question-answer sessions.*

CASE – 2: Responses: Kalahandi

- The school organized almost all the curricular and extracurricular activities, and all stakeholders (Head Master, Teachers, and Students') agreed with those activities. However, the common curricular activities applied by teachers were *'learning by doing method, use audio-visual aids, doubt clear classes are organized for students to better performance and used laptop and mobile phone to additional describe the concepts and topic-related contents.*

CASE- 3: Responses: Nabarangpur

- The school organized almost all the curricular and extracurricular activities, and all stakeholders (Head Master, Teachers, and Students’) agreed with those activities. Most teachers believe that the active engagement of students during classroom transactions is one of the effective teaching-learning processes for enhancing students’ performances.

CASE- 4: Responses: Koraput

- Except for the group work and crafts, teachers’ followed all curricular and extracurricular activities in school, and all the stakeholders responded similarly.

CASE – 5: Responses: Malkangiri

- Except for the group work and crafts, teachers’ followed all curricular and extracurricular activities in school, and all the stakeholders responded similarly.

(h) Use of Technology/TLM

CASE – 1: Responses: Rayagada

- Most of the tools/equipment were used by teachers frequently during classroom teachings, such as LCD Projector, Science Kit, Math Kit, Globe, Maps/Charts, and e-Pathshala. However, FGDs responses were different, i.e., “No use of ICT lab during the teaching in general classes except IT classes,” where LCD projector was available for teaching in the vocational course only.

CASE – 2: Responses: Kalahandi

- Teachers used a few tools/equipment/TLMs frequently during classroom transactions, such as Science Kit, Math Kit, Globe, and Maps/Charts. However, teachers used their laptops and mobile phones for classroom transactions, and all the stakeholders positively agreed with the above process.

CASE- 3: Responses: Nabarangpur

- Most of the tools/equipment were used by teachers frequently during classroom transaction processes, such as LCD Projector, Science Kit, Math Kit, Globe, and

Maps/Charts. All the stakeholders were positively concerned with the usability of technology and different TLMs.

CASE- 4: Responses: Koraput

- Frequently used TLMs by school teachers were science and math kits, globes, and maps/charts, and all the stakeholders stated the same responses.

CASE – 5: Responses: Malkangiri

- The school doesn't have any technological aid. However, the availability of science and math kits, globe, maps/charts, and similar responses stated by all the stakeholders.

(i) Pedagogical Activities/ Practicum

CASE – 1: Responses: Rayagada

- The teachers use almost all pedagogical activities/practicum during the teaching-learning process, and also similar responses were collected from Head Master, Teachers through interviews, and Students through FGDs. The applied pedagogical activities were simple to complex teaching, learning, process, recalling the previous learning through present discussion, engaging the students with activity-based learning, and encouraging the students to ask questions.

CASE – 2: Responses: Kalahandi

- The teachers use almost all pedagogical activities/practicum during the teaching-learning process, and similar responses were collected from different stakeholders. The frequently applied pedagogical activities were simple to complex, activity-based learning, and asked questions related to the previous class and gave enough time to think about the answer.

CASE- 3: Responses: Nabarangpur

- Teachers' applied all pedagogical activities during classroom transactions, and Head Master, Teachers, and Students gave similar responses. The most common pedagogical activity teachers used was simple to complex.

CASE- 4: Responses: Koraput

- Teachers' applied all pedagogical activities, and the most common pedagogical activity applied by teachers' was a simple to complex approach during every classroom transaction, and the stakeholders stated the same responses.

CASE – 5: Responses: Malkangiri

- The teachers use almost all pedagogical activities/practicum during the teaching-learning process, and similar responses were collected from different stakeholders. Further, students are happy with active involvement during different activities organized by teachers'.

(j) Teacher-Pupil Relationships

CASE – 1: Responses: Rayagada

- There was a positive teacher-pupil relationship in school, and it's indicated within some practices frequently followed by school and matched with Head Master, Teachers' and Students responses, such as establishing the cordial relationship, taking extra classes for weak students, and giving scope to pupils to ask questions in the classroom.

CASE – 2: Responses: Kalahandi

- Always positive approaches were frequently adopted by teachers' for effective teacher-pupil relations, such as establishing the cordial relationship, enquiring about the personal problem, health checkups, parental care, and giving scope to pupils to ask questions in the classroom and matching with all stakeholders' responses on above lines.

CASE- 3: Responses: Nabarangpur

- The Teachers frequently adopted practices for an effective teacher-pupil relationship, such as establishing a cordial relationship and health checkups.

CASE- 4: Responses: Koraput

- For an effective teacher-pupil relationship, teachers' frequently used friendly approach was establishing a cordial relationship and sometimes other practices.

CASE – 5: Responses: Malkangiri

- The teachers adopted two practices frequently for establishing effective teacher-pupil relationships in school, such as establishing cordial relationships with students and health check-ups of students.

(k) School Community Relationship

CASE – 1: Responses: Rayagada

- Almost all meaningful approaches were followed frequently by the school for establishing effective school-community relationships and matched with stakeholders' responses such as parent-teacher meetings, the invitation to parents during occasions, and community involvement in school development. However, as per the parents' responses, *"due to this Covid 19, the teacher didn't call us for regular meetings."*

CASE – 2: Responses: Kalahandi

- Almost all meaningful approaches were followed frequently by the school to establish effective school-community relationships and matched with stakeholders' responses. Further, the school also adopted a new program launched by Gov. of Odisha towards enhancing school community relationships named '*Mou School Abhiyan*'.

CASE- 3: Responses: Nabarangpur

- The majority of approaches were followed frequently by the school to establish an effective school-community relationship, and all stakeholders agreed with the activities already followed by the school.

CASE- 4: Responses: Koraput

- Frequently used practices for effective school community relationships were parent-teacher meetings, the invitation to parents during occasions, and organizing awareness programs in the community and the same statement stated by all stakeholders.

CASE – 5: Responses: Malkangiri

- The school frequently used practices for establishing effective school-community relationships, such as parent-teacher meetings, the invitation to parents during important occasions, and organizing awareness programs in the community and the same responses stated by the headmaster, teachers, and parents.

(l) Extension activities (Extra Mural Lectures, Seminars, Workshops, Study)

CASE – 1: Responses: Rayagada

- School organized extramural lectures, especially in social science subjects, along with seminars and workshops on the current topics of the major subject.

CASE – 2: Responses: Kalahandi

- School organized extramural lectures, especially in social science subjects, along with seminars and workshops on the current topics of the major subject.

CASE- 3: Responses: Nabarangpur

- The school organized seminars and workshops on the current topics of the major subjects.

CASE- 4: Responses: Koraput

- School organized extramural lectures, especially in social science subjects. Most lectures are arranged with focused points on accessing higher education and different job perspectives.

CASE – 5: Responses: Malkangiri

- The school organized seminars, workshops, and study tours for better learning practices.

(m) School Governance and Management & Monitoring/ Supervision of the higher authorities

CASE – 1: Responses: Rayagada

- The school has all core components, including a regular Head Teacher for effective school governance and management, except biometric attendance.
- Almost all authorities visited school sometimes rather than frequent basis.

CASE – 2: Responses: Kalahandi

- The school has all core components related to school governance and management except regular Head Master and biometric attendance.
- Most of the authorities visited school sometimes rather than on frequent basis.

CASE- 3: Responses: Nabarangpur

- The school has all core components, including a regular Head Teacher for effective school governance and management, except biometric attendance.
- Most authorities visited the school, except the CRC coordinator, frequently visited.

CASE- 4: Responses: Koraput

- The school has all core components, including a regular Head Teacher for effective school governance and management, except biometric attendance.
- Most authorities visited the school sometimes, except the CRC coordinator has frequently visited.

CASE – 5: Responses: Malkangiri

- The school has all core components related to school governance and management except regular Head Master and biometric attendance.
- Few authorities visited the school sometimes, except the CRC coordinator has frequently visited.

5.9. Discussion

Discussions of the study are explained referring both through research objectives and research questions.

It is observed that the overall profile of the secondary schools of tribal districts of Odisha is in critical conditions such as the majority of schools have over-loaded classrooms, and

schools were situated at more than 5kms distance from the students' habitation and the findings of the study align with the results of Maharana and Nayak, 2017; Parida, 2016; Puan, 2016; and Rout, Naresh, 2015. However, the majority (60%) of the secondary schools in tribal districts of Odisha have a good pupil-teacher ratio at the secondary school level. The findings of the study contrast with the results of Rout, Naresh, 2015, and align with the findings of Mishra, 2015. Further, the study lacked properly linked primary, secondary, and teacher education institutions.

The first objective of this study is based on the status of infrastructure facilities for students and employees available in secondary schools in tribal districts of Odisha. The overall status of secondary schools with reference to school arrangement facilities such as classrooms, Headmaster rooms, office rooms, libraries, common staff rooms, toilet blocks for boys and girls, boundary wall, and safe drinking water facilities was under management and poor conditions and the findings of the study matched with the findings of Das and Anand, 2017; Hansdah, 2016; Maharana and Nayak, 2017; Patra, S.K., 2016; Pradhan and Pattnaik, 2006; Puan, 2016; Sahu, Janmejy, 2013; and Sharma, 2017. However, schools faced problems related to unavailability of basic facilities such as reading rooms, students' hostel, computer rooms, ramps, and railing for an inclusive environment and staff quarters, and the findings of the study corroborate with the findings of Chaudhari, Awasthi & Amin, 2012; Patra, S.K., 2016; and Pradhan and Pattnaik, 2006. The majority of secondary schools have library books and science equipment; however, facing challenges related to lack of e-Pathshala accessibility, computer labs, and sciences labs, the study findings align with Patra S.K., 2016; and Sahu, 2013 findings. Further, the majority of secondary schools don't have regular Head Masters and schools running with half of its' important subjects teachers such as science, classical and PET teachers. Regarding gender and category-wise teachers' distributions, only 27.9% of female teachers and 9.1% of STs were available in schools, which is an alarming matter for the government of Odisha. Besides teaching staff, there is a need for non-teaching staff for every school, and the reason behind appointing non-teaching staff is to reduce the overall administration workload. However, most secondary schools don't have proper sanctioned posts for non-teaching staff, and the findings of the study matched with the study of Mohalik and Sethy, 2015; and Puan, 2016. The majority of secondary schools faced problems related to basic facilities such as playgrounds on school premises, locker facilities in schools for Children with Special Needs (CWSN) Students, internet connectivity & LAN connectivity, computer facilities for students, and printers and the findings of the study align with the study

of Mohalik and Sethy, 2015; and Puhan, 2016. However, schools have proper electricity, fans, and well-ventilated and lighted classrooms; the study's findings corroborate Mohalik and Sethy 2015; Patra, S.K., 2016; and Sahu, 2013. After understanding the basic facilities, the classroom environment condition is another core parameter to identifying the exact conditions of the secondary schools for providing quality education for all. So the majority of secondary schools faced problems with the unavailability of suitable size of classrooms, proper seating arrangement, space for group work, whiteboard, classroom color, decoration, and TLMs corner; the above findings with regards to problems has in consistent with Das and Anand, 2017; Dash, Manasi, 2015; Hansdah, 2016; Maharana and Nayak, 2017; Patra, S.K., 2016; Pradhan and Pattnaik, 2006; Puhan, 2016; Sahu, Janmejaya, 2013; and Sharma, 2017.

The second objective of this study focused on the status of equity and inclusion in enrolment, retention, and achievements concerning gender, category, and CWSN students, along with understanding the issues addressed by the schools in this regard. The overall enrolments of class IX have increased compared to class X; the findings of the study contrast with the findings of Mohalik and Sethy (2015). Further, the transition gap from IX to X was highly increased compared to previous years, i.e., 421 students'. Boys' enrolment is more in both classes than girls' students'. However, ST boys' students' dropout is high as compared with other categories & overall girls' students' enrolments. The scheduled tribes' enrolment and dropout were the highest among other categories of students and increased year-wise. Besides that, the overall retention rate in secondary schools also ups and down year-wise, and the study findings align with the findings of Behera and Krishnaiah, 2021; Biswas, G., and Krishnan, D., 2017; Mishra, 2015; and Ramdas Rupavath, 2016. The achievement of girl students' was slightly high as compared to boys' students' the findings of the study were a relatively positive indication of the findings of Nayak, 2014 where researchers found that 50 percent of the parents send their girl child for schooling regularly. Most parents showed interest in sending their girls' children outside for higher study. Hence, it can be concluded that the overall enrolment of different categories was not equal participations in nature, especially zero enrolments of CWSN students', inequality of enrolment, retention, and achievements of boys' and girls' students' at the secondary schools level of tribal districts of Odisha. The reason behind the lack of enrolment of CWSN students' at the secondary school level was that schools' don't adhere to the norms of inclusive education for CWSN students' in terms of appointing special teacher educators and lack of learning environment for them, and the findings of the study some extent aligned with the findings of Biswas, G., and

Krishnan, D., 2017; Mishra, 2015; and Ramdas Rupavath, 2016. However, almost all schools have special provisions for Girls, SCs, STs, Minorities, and CWSN in terms of scholarship, cycles, and free textbooks; the findings of the study matched with the findings of Das and Anand, 2017; Sanjeev, Sandeep, Chauhan, and Tewari, 2017. Further, schools also had undertaken measures to address the educational issues through Parents' awareness through SMC/SMDC meetings; personal consultation with parents; counseling facilities, and door-to-door visits in case of long absenteeism of students' the findings of the study help to overcome the past issues found by Das and Anand, 2017; and Sharma, 2017 where the study found both parents and teachers also lack awareness about various schemes and other initiatives related to school education.

The third objective of the study focused on classroom transactions and assessment techniques used for learning with reference to teacher performances. The study found that teachers with higher qualifications performed excellently compared to teachers with only a Degree with B.Ed. qualifications, and the findings of the study matched with the findings of Mohalik and Sethy, 2015 and to some extent with the study of Imam, Ali, Singh G.P and Tiwari Y.N., 2016; and Mohanty, 2003. The study also stated that half of the teachers above averagely used the following approaches during the classroom transactions such as 53% of teachers look at classes to settle before teaching, teaching based on what students already know, illustrating concepts with a variety of examples from the context, gives appropriate reinforcement, offer personal support to learners at the time of difficulty during class activity, encourage divergent thinking, relates the subject with other subjects and summarizes at the end of the class. 56% and above, teachers write legibly on the blackboard, use appropriate teaching-learning method, use locally available things as TLMs, activates learners during the class, encourage learners to ask questions, and provide home assignments to the students' that requires enquire. Further, a few of the teachers excellently used the following approaches during the classroom transactions: 50% and above teachers state the topic before teaching, possess mastery over content knowledge, present information in a clear and organized manner, explains the simple concepts with familiar language, 80% and above up to 100% teachers' excellent in overall personality, the teacher presents in an audible voice to every learner, maintains order in class. However, only a very few teachers (18.1%) used ICT during the classroom observations by the researcher. Further, the study found that the majority of secondary schools don't have proper technological aids; the findings of the study corroborate with the results of Mohalik and Sethy, 2015. However, other TLMs were

available in schools, such as Science Kit and Math kit, Globe, and Maps/Charts, and teachers used these TLMs sometimes; only the findings of the study contrast with the results of Patra, S.K., 2016; and Pradhan and Pattnaik, 2006 and findings some extent aligned with the findings of Chaudhari, Awasthi & Amin, 2012; and Devi, Kiran, & Prashanti, 2014.

The fourth objective of the study related to understanding schools' overall performances for promoting quality education at the school level, and the researcher described the findings in two different phases. The first phase described the overall performances (core elements) of all fifty secondary schools from five tribal districts of Odisha. The second phase focused on the five best-performing schools as a special case for further understanding the quality practices and challenges. The first phase study found that 98% of school teachers attended training programs provided by the Govt. as well as NGOs and rating as a good training program. Further, the study revealed that the majority of teachers' are interested and extent the practices of establishing good teacher-pupil relations through the cordial relationship with students' the findings of the study to some extent, matched with the findings of Das and Anand, 2017; Hansdah & Puan, 2016; Sanjeev et al., 2017; Wajeha Thabit Al-Ani & Omer Hashim Ismail, 2015. Schools are also majorly concerned about the importance of schools community relationship through organizing activities frequently, such as parents' teacher meetings and an invitation to parents during occasions; the findings of study relatively measures against the studies of Biswas, G., and Krishnan, D., 2017; Mishra, 2015; and Ramdas Rupavath, 2016. The study also found that almost all schools have SMDC/SMC, constitutes as per the RMSA/SSA norms, and hold monthly meetings, and all proceedings of meetings were recorded. Schools have all registers for different activities; the school cabinet was constituted in school, a complaint/suggestion box available in school, toll-free numbers written prominently on the school wall, maintaining academic calendar of the school, and a school improvement plan. However, most secondary schools don't have regular Head Teachers, grievance redressal cells, and biometric attendance. Only the CRC coordinators frequently monitored the secondary schools through personal visits; the study's findings corroborate with the findings of Mohalik and Sethy, 2015 who also claim that secondary schools don't have regular Head Master and are being run by half of the subject teachers and have proper governance and management. The study also found some communication problems from home to school & language problem leads to communication problem between teachers and students. Domestic work leads to students' absenteeism. Further, in the same line, issues with problems due to the deputation of teaching and non-teaching staffs the

findings of the study matched with the findings of Behera, 2015; Mishra Lokanath, 2015; and Ramdas Rupavath, 2016. The next issues related to inequality feelings among primary and secondary teachers due to their uniform, salary, and qualification, lack of Craftwork and research project work for teachers, lack of beautification of the school campus, and secondary students were not performing well due to their proper elementary education. To support this finding, the researcher couldn't locate such studies where the same finding was revealed. However, the study also found five major suggestions for further improvement of the quality of secondary school education, such as providing basic infrastructure & other facilities, including hostel facilities for boys and girls on an urgent basis, toilets, safe drinking water, playground, repair school buildings including additional classroom buildings and own land for it, boundary wall, sanitation, & staff quarters. The second suggestion was related to appointing the teachers (MLE teachers, lady teachers), School Counsellors, non-teaching & regular Head Master. The third suggestions lead to organizing an awareness program for parents towards school education. The fourth suggestion focused on providing Mid-day-Meal at the secondary school level & transportation facilities for students, particularly in tribal areas. The fifth suggestion guided towards one school uniform for all teachers and one staff room and canteen for all. No need to engage teachers in out-of-school activities such as (Covid 19 duty in railway stations, Cemetery areas, & others). However, teachers also suggest strengthening primary education for better secondary school education. To support all these findings, the researcher couldn't locate such studies where the findings were revealed.

The second phase of the fourth objective is related to five case studies and their different quality practices. The first quality component was based on the availability of pupil-teacher ratios and teaching and non-teaching staff. The pupil-teacher ratio of all five secondary schools was in good ratio along with a good number of classrooms per the students' ratio. Four out of five schools have regular Head Teachers and subject-wise teachers'. The second quality component focused on school arrangement, where the researcher found that the majority (three out of five) secondary schools have basic facilities. Also, the conditions of those facilities were manageable. The third quality component is based on the availability of curriculum components and facilities & studies found that most (three out of five) schools have available curriculum components and necessary facilities. The fourth quality component is located in the classroom environment. The study found that three out of five schools have all types of dimensions available for an effective classroom environment, such as the suitable size of classrooms, seating arrangement (Desk/ Chair-table, etc.), space for group work,

blackboard, electricity with fan and light, and ventilation. The fifth quality parameter is based on curriculum components used by teachers during classroom transactions. A study found that most schools have curriculum components, and teachers use them during classroom transactions'. Moreover, teachers used their laptops and mobile phones to explain the content better. The sixth quality parameter followed the method of transactions used during classroom transactions: discussion methods, demonstration methods, peer learning, group work, project work, and assignments. The seventh quality indicator is based on methods of organizing curricular and extracurricular activities: all schools organized curricular and extracurricular activities except craft-related activities. The next quality component is based on the use of technology and TLMs by teachers' and researchers found that all the five secondary school teachers used all types of TLMs during classroom transactions; however, three out of five secondary school teachers used technological aids during their classroom transactions. The ninth quality component based on pedagogical activities/ practicum and study revealed that most of the schools followed the same pedagogical activities and practicum, such as simple to the complex teaching-learning process. The tenth quality dimension highlighted teacher-pupil relationships, and the researcher revealed that all school teachers' applied positive approaches to establishing cordial relationships with students. The eleventh quality component focused on school-community relationships. It was found that most of the approaches adopted by all schools for establishing effective school-community relationships, such as parent-teacher meetings and invitations to parents during occasions. The twelfth quality component based on extension activities that schools and researchers organized found that all three out of five secondary schools organized the extramural lecture, and another two schools organized seminars and workshops. The last quality components highlighted on schools governance and management and monitoring/supervision of the higher authorities. The study revealed that schools have all core components related to school governance and management; however, four out of five schools have only a regular Head Master. Further, the study also revealed that only CRC coordinators visited frequently. The above findings of the study to some extent, corroborate with the results of Das and Anand, 2017; Dundar, H., and Murat. A, 2014; Kim, H.J and Jang, H.Y., 2015; Mohalik and Sethy, 2015; Patra, S.K., 2016; Pruet. P., Ang. C.S., and Farzin, D., 2016; Sanjeev, Sandeep, et al., 2017; Sahu, 2013; and contrast with the findings of Das and Anand, 2017; Hansdah, 2016; Maharana and Nayak, 2017; Patra, S.K., 2016; Pradhan and Pattnaik, 2006; Puhan, 2016; Sahu, Janmejy, 2013; Sharma, 2017; and Wajeha Thabit Al-Ani & Omer Hashim Ismail, 2015.

5.10 Educational Implications and Suggestions

The findings of the present study would help understand the current status of the quality of secondary school education in tribal districts of Odisha in the context of Samagra Shiksha Abhiyan. The possible implications are highlighted in the succeeding sections.

5.10.1 Implications for Government:

- The study found that the majority (98%) of secondary schools are located more than 5km from the habitation of the students. Therefore government should take the necessary steps to make secondary education friendly and accessible for all students. It may be possible to set up new secondary schools or upgrade existing upper primary schools.
- The study found that 76% of secondary schools do not have hostel facilities, and 98% of schools do not have staff quarters for teachers. Therefore, residential facilities for all (students and teachers) must be made available in all secondary schools. The researcher found that teachers and students come from long distances and hilly areas where they cannot communicate properly with schools.
- The researcher found that a few secondary schools in tribal areas have land issues, and because of this, Head Master faced problems and the sometimes inappropriate situation created by community members. Therefore, the government should take a major concern to solve the land issues as soon as possible.
- Samagra Shiksha Abhiyan is more focused on an integrated approach from class I to XII and has a good linkup with teacher education institutions. However, the study found that 70% of secondary schools have classes from I to X without proper linkup with class XI and XII and teacher education institutions. Hence, the government should take the necessary steps to integrate classes from I to XII and good linkup with teacher education institutions. It may be possible to set up new secondary schools or upgrade existing schools.
- 54% of secondary schools in class IX and 62% in class X have a critical student classroom ratio, i.e., 1:51 and above. Hence, the government should sanction additional classrooms to resolve these issues.
- The majority (72%) of secondary schools have significant issues related to school improvement, such as a lack of basic infrastructure including other

facilities such as electricity, cycle stands, Labs, smart classrooms, library rooms and books, mini stadium, sanitation, safe drinking water, suitable school buildings, playground, & boundary wall. Therefore, the government should take the necessary steps to provide these basic facilities in the school.

- The study found that 60% of secondary schools do not have a regular Head Master and school running with half of its subject teachers. Further, when it comes to non-teaching staff, the same problem is faced by schools. Therefore, the government should fill up the teaching and non-teaching posts as soon as possible to enhance quality education.
- Most secondary schools face problems related to a lack of community cooperation and awareness of school education. Hence, govt. should organize awareness programs for the local community and SMDC/SMC members on regular basis.
- It is also observed that language problem leads to communication problem between teachers and students during the teaching-learning process. Further, in the same line, issues with problems due to the deputation of teaching and non-teaching staff, especially in tribal areas. Therefore, action should be taken to train the teachers related to tribal language and stop unnecessary deputation of teaching and non-teaching staff from tribal areas.
- The issue faced by Head Masters was inequality among primary and secondary teachers due to their uniform, salary, and qualification. Hence, action should be taken on one school uniform for all teachers and one staff room and canteen so they can move together equally.
- There was a lack of introduction to craft-related activities in most secondary schools, particularly vocational education. Further, secondary school students are not performing well due to their lack of proper Primary education. Therefore, govt. should take action on mandatory introduction of vocational education at the secondary school level and strengthen primary education at the teaching-learning level.
- Samagra Shiksha Abhiyan and NEP 2020 raised a point on 'teachers with technology' However, the study found that most secondary schools do not have technological aids, and most schools do not have ICT teachers. Hence, actions should be taken to facilitate technological aids such as computer systems, LCD

projectors, and related screens and appoint ICT teachers at the secondary school level.

- The Ministry of Education and NCERT have developed an online platform- Pathsala for students, teachers, and other stakeholders for school education. The teachers and students must be oriented about using this platform and other Open Education Resources for teaching-learning. Hence, govt. should take necessary steps to train the teachers in this regard.
- Most secondary schools do not have a proper learning environment for facilitating inclusive education, nor a special teacher appointed yet. Therefore, inclusive education must be practiced in all secondary schools by giving proper ramps, hand drills, brail books, separate toilets, etc.
- The enrolment rate of class X has decreased, and but increased the overall retention rate over the years, especially in the case of CWSN. The average transition rate from class IX to X is 423 students'. Hence, the government should take necessary steps to control the transition number and increase class X enrolment by providing good hostel and fooding facilities.

5.10.2 Implications for School and Teachers

- The majority of the classroom transactions were performed under above average category by the majority of the teachers. Hence, it should be expected to be excellent.
- It was observed from the classes that half of the teachers' do not encourage pair/group work and ensure peer learning. Therefore, teachers' should encourage these activities further.
- Most class teachers followed traditional teaching and preferred to use their technological gadgets such as laptops and mobile phones during their classroom transactions. Therefore, Head Masters' should encourage the teachers to use possible technological aids during the teaching-learning process.
- It was found that sometimes only remedial classes are organized. So efforts should be made to organize remedial teaching as per the requirements of the students frequently.
- It was observed that only 56% of secondary schools provide counseling and guidance facilities for students' better futures. Therefore, secondary schools, particularly Head Masters', can expect that counseling and guidance facilities must follow on a compulsory basis.

- The grievance redress system is meant to establish a fair, independent, and consistent system for redressal of many issues faced by stakeholders to develop a responsive attitude among all so that it will help to maintain a harmonious atmosphere in the school. However, most secondary schools (60%) do not have a Grievance redressal cell.
- Teachers should give special attention to the learning of the weaker students, especially CWSN students'. Therefore, there will be some possibility of increasing CWSN students' enrolment.
- The students need to be encouraged to study by organizing a class talk on different study skills, reading habits, note-taking, and communication skills. Established alumni may be invited to the school to talk about their success. Every school must appoint a school counsellor to help students and teachers, especially girls, with their adjustment during adolescence. The counsellor will also help students to choose subjects and careers after school education.

5.11 Suggestions for Further Research

The researcher would suggest the following for further study.

- A similar study can be conducted to compare school education in Odisha's tribal and general districts.
- A study can be conducted to understand the integration process and related issues with Primary, Secondary, and Teachers' Education Institutions.
- Further, a study can be conducted to understand the various stakeholders' perceptions and attitudes towards Samagra Shiksha Abhiyan.
- A mixed-method approach-based study can be undertaken to understand the program's effectiveness.
- A study can be undertaken on financial support from govt. and other resources for school development.
- A study can be undertaken on effectiveness of innovative practices in tribal schools of Odisha.

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APPENDICES

Appendix A: Publications and Conferences

'Akshar Wangmay' UGC Care Listed & Peer Reviewed International Research Journal, ISSN: 2229-4929, December 1st Week– 2020
Special Issue "Multidisciplinary Perspectives on Health, Society, Environment & Sustainable Development"

Status of Inclusion at Secondary School Level: From Strategy to Reality

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Abstract

As we know how education plays a significant role in making a nation, and in the same context, secondary education for the country and individual achievement is not new. There are several committees, reports, laws, plans, and services in history that have been stressed explicitly on school education in general and secondary education. Despite its importance, in our country, very little attention is given to secondary education. But in the case of elementary school and higher education have received a fair degree of care, at least in the official educational discourse. This paper moreover focusing the equity and inclusion in enrolment and retention concerning gender, category, and children with special needs (CWSN). The survey method has employed with a total sample of 50 secondary schools from five districts selected from Jharkhand, using multistage sampling techniques. The self-developed tool: school records format based on equity and inclusion in school as prepared. The information has collected from official staff by visiting various schools. The study found that the state government has taken many initiatives as per the RMSA guidelines. But the status of secondary education in terms of enrolment and retention towards improving standard participation, especially girls and CWSN, has grown under critical circumstances.

Key Words: Enrolment, Retention, RMSA, Secondary School, Quality Education.

Introduction

As we know, secondary education has taken crucial roles for the individual learning path more comfortable in a well-developed society. It functions as an essential stepladder between primary and higher education. It's a vital stage in the educational system as it prepares students for quality higher education and the world of activities and practices. However, we face many problems related to access, equity, and quality at school level in general and secondary school in specific. As per the report of IIEP-UNESCO currently, there are 33 million children with disabilities are out of school worldwide. The common challenges in planning for inclusive education and a way forward for getting all children and youth learning together; India also faces the same problems and challenges many unsolved issues. Hence, in general, the importance of the school education for a child is the most essential after the health, and Rashtriya Madhyamik Shiksha Abhiyan was a possible strategy for tracking the issues and cover up with primary objectives, i.e., quality, equity, and access to secondary education by all.

The Rationale of the Study

Secondary education aims to develop democratic citizenship, improve vocational efficiency, build up the personality, and extend leadership qualities among students (Secondary Education Commission (1952-53)). It emphasized relating education to life, needs, and aspirations of the people and made it a powerful instrument of society's social-economic and cultural transformation (Education and National development (1964-66)). It prepares an individual from a global perspective for facing any challenges. Hence, many of the developed nations across the globe made it more universal and compulsory. The school improvement has three dimensions: students' learning outcomes, governance of the school, staff, and facilities (MHRD (2014)). Most of the studies (Dubey, Trigunait, and Dwivedi (2014), Tuntun and Mohalik (2011)) focuses on facilities that were not satisfied to meet the demand for quality education. There are few studies (Tuntun (2011) and Mohalik (2011), Mehta (2002)) are focused on enrolment and retention, which stated that 70% of students who enroll in primary school are not enrolling in secondary school. Low enrollment of girls in education and a flat rate of attendance in secondary schools are an obstacle to the Universalization of secondary education. Most studies found many problems related to different secondary education issues, specific to inclusion from the above analysis. We know that Jharkhand, one of the educationally backward states with 66%, and lack of study conducted in secondary education concerning RMSA. Therefore, there was a need to attempt a study on "*Status of Inclusion at Secondary School Level: From Strategy to Reality*" and the following objective as focused.

Quality Issues in School Education: Perspectives of National Education Policy 2020 towards achieving SDGs

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Abstract

Getting basic education in our country as per every child's fundamental rights, however, achieving basic with a quality education is still daydreaming for a child. We have well known that we need such learning, strengthening a child's capacity to act progressively. On their behalf, acquiring relevant knowledge, useful skills, and appropriate attitudes, which creates for children, helps them create for themselves and other safety, security, and healthy interaction. Generally, school systems work with the children who come into them. Before beginning formal education, the quality of children's lives greatly influences the kind of learners they can be. Many elements make quality learners, including health, early childhood experiences, and home support. But present scenario showing something different, and it clearly understands from our national data regarding school education that we face many issues related to making such things from ground level. In this article, the authors trying to explore the concept of quality education with support to quality school education, current issues relating to school education, and describe the perspective of National Education Policy, 2019 towards providing quality school education for all. This paper's core concern is to highlight the SDGs 4.1 & 4.5 objectives and issues & steps highlighted by NEP 2020.

Key Words: Quality Issues, School Education, Sustainable Development Goals

Introduction

India has a strong Constitutional core, especially for its Fundamental Rights towards providing free and compulsory education to all children. Country also focuses World Declaration on 'Education for All,' and successfully achieved through Sarva Shiksha Abhiyan (2001) and Adopting Right of Children to Free and Compulsory Education Act (2009) Pre-Primary and Primary School level, in terms of universal enrolment. It has made significant progress towards the goals of universal enrolment, access, and retention. Now India, focus on its quality secondary school education and tried to achieve through Rashtriya Madhyamik Shiksha Abhiyan (RMSA-2009), unfortunately, this mission is not to achieve so far, and still there are so many problems exist in school education in the following areas: Civil work progress is slow; having slow GEP, i.e., less than 55%, still high dropout rate & district are having 25.37% & 20.67% or more, and in the last districts are having low transition rate and having low GPI in our country (U-DISE, 2015-16). There are many key programmatic interventions for fostering quality education at the school level. So this paper majorly focuses on quality issues & perspectives of SDGs in general and NEP@2020 at the school level.

Major Theme: Issues revealed by NEP 2020 & SDGs 4.1. & 4.5 Objectives

The following issues as cited by NEP 2020 in its final document:

Serious Issues in School Education: Retaining children in the school system:

The Gross Enrollment Ratio for the grades 6-8 was 90.90%, while for the Grades 9-10, and 11-12 it was only 79.30%, and 56.50%, respectively – indicating that a significant preparation of enrolled students from dropout after the Grade five & especially after the Grade eight. According to the 75th round household survey conducted by NSSO (2017-18), the number of out-of-school children aged 6-17 years is more than 3.22 crores. High dropout issues, so overall initiatives will be undertaken to bring children who have dropped out back to school. Secondly, to prevent further children from dropping out; Lack of trained teacher, therefore NEP planning for providing regular trained teacher at each stage; School remains deficient on infrastructural support. Hence, the necessary steps will be taken in these areas; Lack of Upgradation of schools and the slow process of building additional schools in areas where the school does not exist; Lack of hostel facilities, especially for girls in remote areas. Therefore, all children can attend a quality school and learn at the appropriate level;



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Appendix B : Academic Achievement

RAYAGADA DISTRICT											
School Name	Years	Appeared	Boys	Girls	Passed	Boys	Girls	Failed	Boys	Girls	Totals pass Percentage
Govt. High School, Bissam Cuttack	2017-20	477	271	206	321	182	139	156	89	67	67.29
School 2	2017-20	219	108	111	146	67	79	73	41	32	66.66
School 3	2017-20	105	81	25	54	38	16	51	42	9	51.42
School 4	2017-20	252	154	98	128	56	72	124	98	26	50.79
School 5	2017-20	282	85	197	189	50	139	93	35	58	67.021
School 6	2017-20	100	69	31	52	32	20	48	37	11	52
School 7	2017-20	66	29	37	36	16	20	30	13	17	54.54
School 8	2017-20	95	46	49	38	18	20	57	28	29	40
School 9	2017-20	18	12	6	9	5	4	9	7	2	50
School 10	2017-20	21	13	8	7	4	3	14	9	5	33.33
Total Boys & Girls from All Schools		1635	868	768	980	468	512	655	399	256	
KALAHANDI DISTRICT											
School Name	Years	Appeared	Boys	Girls	Passed	Boys	Girls	Failed	Boys	Girls	Totals pass Percentage
Govt. High School, Talbelgaon	2017-20	62	38	24	50	30	20	27	8	4	80.64
School 2	2017-20	87	46	41	47	25	22	40	21	19	54.02
School 3	2017-20	133	74	59	69	44	25	54	20	34	51.87
School 4	2017-20	53	30	23	26	15	11	27	15	12	49.05
School 5	2017-20	40	18	22	12	3	9	28	15	13	30
School 6	2017-20	48	25	23	16	9	7	32	16	16	33.33
School 7	2017-20	390	204	186	283	163	120	107	41	66	72.56
School 8	2017-20	147	73	74	61	34	27	86	39	47	41.49
School 9	2017-20	54	31	23	16	9	7	38	22	16	29.62
School 10	2017-20	99	40	59	38	12	26	61	28	33	38.38
Total Boys & Girls from All Schools		1113	579	534	618	344	274	500	225	260	

Appendix B

NABARANGPUR DISTRICT											
School Name	Years	Appeared	Boys	Girls	Passed	Boys	Girls	Failed	Boys	Girls	Totals pass Percentage
New Govt. Harischandra High School Tumbrella	2017-20	201	106	95	163	87	76	38	19	19	81.09
School 2	2017-20	60	31	29	45	24	21	15	7	8	75
School 3	2017-20	70	28	42	54	21	33	16	7	9	77.14
School 4	2017-20	132	72	60	87	44	43	45	28	17	65.9
School 5	2017-20	137	75	62	102	56	46	35	19	16	74.45
School 6	2017-20	320	180	140	193	109	85	126	71	55	60.31
School 7	2017-20	232	136	96	106	56	50	116	80	36	45.68
School 8	2017-20	147	92	55	69	41	28	78	51	27	46.93
School 9	2017-20	202	129	73	98	57	41	104	72	32	48.51
School 10	2017-20	139	78	61	69	34	35	70	44	26	49.64
Total Boys & Girls from All Schools		1640	927	713	986	529	458	643	398	245	
KORAPUT DISTRICT											
School Name	Years	Appeared	Boys	Girls	Passed	Boys	Girls	Failed	Boys	Girls	Totals pass Percentage
Gopal High School, Ramagiri	2017-20	282	175	107	142	99	43	140	76	64	50.34
School 2	2017-20	48	13	35	20	3	17	28	10	18	41.66
School 3	2017-20	157	94	63	75	43	32	82	51	31	47.77
School 4	2017-20	100	59	41	29	20	9	71	39	32	29
School 5	2017-20	45	29	16	11	5	6	34	24	10	24.44
School 6	2017-20	74	43	31	15	5	10	59	38	21	20.27
School 7	2017-20	43	33	10	16	13	3	27	20	7	37.2
School 8	2017-20	229	127	102	100	60	40	129	67	62	43.66
School 9	2017-20	171	91	80	63	37	26	108	54	54	36.84
School 10	2017-20	82	56	26	37	23	14	45	33	12	45.12
Total Boys & Girls from All Schools		1231	720	511	508	308	200	723	412	311	

Appendix B

MALKANGIRI DISTRICT											
School Name	Years	Appeared	Boys	Girls	Passed	Boys	Girls	Failed	Boys	Girls	Totals pass Percentage
Madhu Sudhan High School	2017-20	197	120	77	148	90	58	49	30	19	75.12
School 2	2017-20	358	197	161	259	142	117	99	55	44	72.34
School 3	2017-20	66	24	42	49	19	30	17	5	12	74.24
School 4	2017-20	128	128	0	79	79	0	49	49	0	61.71
School 5	2017-20	129	88	41	91	60	31	38	28	10	70.54
School 6	2017-20	152	128	24	108	90	18	44	38	6	71.05
School 7	2017-20	108	52	56	63	38	25	45	14	31	58.33
School 8	2017-20	60	36	24	29	18	11	31	18	13	48.33
School 9	2017-20	41	37	4	16	14	2	25	23	2	39.02
School 10	2017-20	20	8	12	6	2	4	14	6	8	30
Total Boys & Girls from All Schools		1259	818	441	848	552	296	411	266	145	

Respected Sir/Ma'am

I am Dhaneswar Behera, Ph.D Research Scholar, Department of Education and Education Technology, School of Social Sciences, University of Hyderabad. I am conducting a research on **“Quality Education in Secondary Schools of Tribal Districts of Odisha in the Context of Samagra Shiksha Abhiyan”**. This tool is seeking information about to overall ideas about your school i.e., infrastructural arrangements, equity and inclusion in enrolment, school community relationship and so on. Please respond by putting tick (√) mark against items depending on their availability and accessibility for you. Also please provide relevant details such as numbers and condition of these items number in the respective boxes against each item. The data provided by you will be kept confidential and will be used for research purposes only.

Regards

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Appendix C: School Information-cum-Questionnaire

School Information-cum-Questionnaire

A. School Environment

a. Basic Profile

1. Name of the School: _____
2. School Telephone Number: _____
3. School Email id and Website: _____
4. Name of the Head Teacher/Principal: _____
5. Name of the Block: _____
6. Name of the District: _____
7. Type of School: 1-Boys/ 2-Girls/ 3-Coeducational
8. Course Patterns: 1-BSE/ 2-CBSE/ 3-ICSE
9. U-DISE Code of School: _____
10. Class Available:

1	2	3	4	5	6
IX-X	VI-X	I-X	IX-XII	VI-XII	I-XII

11. Sections in classes IX-X:

Class IX	Class X
No. of Sections: 1/ 2/ 3/ 4	No. of Sections: 1/ 2/ 3/ 4
Total no. of students:	Total no. of Students:
Sec 1:	Sec 1:
Sec 2:	Sec 2:
Sec 3:	Sec 3:
Sec 4:	Sec 4:

12. Maximum Distance of School from Students' Habitation:

1	2	3
< 3 kms	3-5 kms	>5 kms

13. Details about the School Rooms

Sl. no.	Dimensions	Availability		If yes,.....				
		Yes	No	Exce- llent	Good	Mana Geable	Poor	Very Poor
i.	Classrooms							
ii.	HM/Principal Room							
iii.	Office Room							
iv.	Library							
v.	Reading room							
vi.	Lab							
vii.	Play Ground							
viii.	Staff Common Room							
ix.	Students Hostel							
x.	Staff Quarters							
xi.	Ramp and Railing for inclusive environment							
xii.	Computer room							
xiii.	Separate Toilet blocks for boys and girls							
xiv.	Separate Toilet for teachers							
xv.	Separate toilet for female teachers							
xvi.	Drinking Water Facility							
xvii.	Resource Room							
xviii.	Auditorium/ Multi							

	Purpose Hall							
Sl No.	Dimensions	Availability		If Yes,.....				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
xix.	Medical Sick Room							
xx.	Boundary Wall							
xxi.	Kitchen Shed							
xxii.	Art/Craft/Culture room							
xxiii.	Girls' Hostel							
xxiv.	Boys' Hostel							
xxv.	Garden							
xxvi.	Any other							

14. Teaching Staff

Positions	1- Sanctioned	In position	Vacancy
Head teacher			
Asst. teacher – Science (PCM)			
Asst. teacher – Science (CBZ)			
Asst. teacher – Arts			
Asst. Teacher – classical			
PET			
Any other			

15. Teacher Profile (Attached with Separate Sheet)

16. Non-Teaching Staff

Positions	Sanctioned	In position	Vacancy
Clerk			
Librarian			
Lab Asst.			
Peon			

Watchman/security			
-------------------	--	--	--

b. Facilities

1. Availability of Safe Drinking Water in School: 1-Yes/ 2-No
2. Source of Drinking Water: 1-Tap Water/ 2-Hand Pump/ 3-Any Other
3. Availability of Functional Toilets: 1-Yes/ 2-No
4. If yes, Please provide details:
1-Common/ 2-Boys/ 3-Separate for Girls/ 4-Staff and Teachers/ 5-Separate for Ladies Teacher
5. Availability of Electricity in School: 1-Yes/ 2-No
6. Availability of Fans in Classrooms: 1-Yes/ 2-No
7. Ventilation in Classrooms: 1-Well Ventilated/ 2-Manageable/ 3-Poor
8. Light in Classroom: 1-Well Lighted/ 2-Manageable/ 3-Poor
9. Availability of Playground in School Premises: 1-Yes/ 2-No
10. Availability of Locker facility in School: 1-Yes/ 2-No
11. Availability of facilities for CWSN Students:
1-Ramps/ 2-Hand Drill/ 3-Toilets/ 4-Adapted Computer Lab
12. Availability of Internet Connectivity: 1-Yes/ 2-No
13. Availability of LAN (Local Area Network) facility: 1-Yes/ 2-No
14. Number of Computers in working condition available in the School, if any:

Teaching Purpose	Office Use	Total

15. Number of Printers available in School:
16. Available of Fire Extinguisher facilities in School: 1-Yes/ 2-No
17. Student Classroom Ratio (SCR):

Class IX	Class X
Students:	Students:
Classrooms:	Classrooms:

18. Pupil Teacher Ratio (PTR):

Class IX-X
Teachers:

Students:

19. Availability of hostel facilities for students: 1-Yes/2-No

20. If Yes please provide details.

Capacity of boys' Hostel	Capacity of girls' Hostel

c. Classroom Environment

Sl. No.	Dimensions	Availability		If yes...				
		Yes	No	Excellent	Good	Manageable	Poor	Very Poor
i.	Suitable size of Classrooms							
ii.	Sitting arrangement (Desk/ Chair-table etc.)							
iii.	Space for group work							
iv.	Black board							
v.	White board							
vi.	Class room colour and Decoration							
vii.	Electricity with fan and Light							
viii.	Ventilation							
ix.	General Cleanliness							
x.	TLM corner							

B. Equity and Inclusion of Students

1. School adhere to Inclusive Education for CWSN 1- Yes/ 2 – No
2. Special provision for girls

1	2	3	4
---	---	---	---

Scholarship	Cycles	Free textbooks	Separate toilets
-------------	--------	----------------	------------------

3. Special provision for SC, ST, Minorities

1	2	3	4
Scholarship	Cycles	Free textbooks	Counseling and guidance

4. Measures undertaken to address the educational issues of children belonging to;

Category	
SC	
ST	
Minorities	
Girls	

5. Special measures undertaken to address the following issues of girls;

Issues	Measures Taken
Early Child Marriage	
Child Labour	
Children in Civil Strife Areas	
Child Migration	
Child Trafficking	

6. Data of Enrolment, Retention & Achievement (attached with separate sheet)

C. Curricular Inputs/Curricular Components

1. Please put tick mark in following curricular inputs/components as followed in your school.

- a. Library Books
- b. Science Lab/Equipment
- c. Language Lab
- d. Social Science Lab
- e. Computer Lab
- f. e-Pathsala accessibility
- g. Any others (pleases specify the name)

2. Please put a tick mark related curriculum components you used during classroom transaction?

- a. Blackboard related components
- b. Text based Materials
- c. Audio/ Video based Materials
- d. Image/Graphic based Materials
- e. ICT instruments
- f. Locally available TLM
- g. Any others (Please specify the name)

D. Methods of Transaction for Curricular Subjects/ Methods of Organising of Curricular Activities

1. Comment on the use of different methods of transaction during classroom transaction. Put tick marks in the appropriate boxes.

Sl. No.	Transaction Method	Frequently	Sometimes	Not at all
1.	Lecture/Discussions			
2.	Demonstrations			
3.	Field Visit			
4.	Group Discussions			
5.	Peer Learning			
6.	Panel Discussion			
7.	Self-study			
8.	Guided Study			
9.	Project Work			
10.	Brain Storming			
11.	Assignment			
12.	Any Other (specify)			

Suggest any other method you feel suitable:

2. Comment on the use of different methods of organising curricular activities. Put tick marks in the appropriate boxes.

Sl. No	Activities	Put a tick mark (✓)
a)	Group work	
b)	Role play	
c)	Discussion	
d)	Field visit	
e)	Sharing their experiences	
f)	Use of TLMs	
g)	Innovative Practices	
h)	Learner Participation	
i)	Teacher Response	
j)	Scope for interaction among learners	
k)	Monitoring and Supervision	
l)	Lesson note and Dairy	
m)	Any other	

Suggest any other method you feel suitable:

3. Respond on the Curricular Activates in the School. (Put tick marks in the appropriate boxes)

Sl. No.	Activities	Extent of practices		
		Frequently	Sometimes	Not At all
i.	Sports and Games			
ii.	Gardening			
iii.	Yoga			
iv.	Crafts			
v.	Drama			
vi.	Debate			
vii.	Creative literacy activities			
viii.	Annual sports			
ix.	Annual function			
x.	Song competition			
xi.	Elocutions			
xii.	Any other			

E. Training Package for Teachers

1. State the details of training programmes you have attended so far:

Sl. No	Name of the training programme	Duration	Month/ Year
1			
2			
3			
4			

2. Was the training programme you attended, assessed / evaluated? 1-Yes/ 2-No

a) If yes, state the mode of evaluation:

- i. Written ()
- ii. Oral ()
- iii. Both written and oral ()
- iv. Any other ()

b) Give your overall rating on the quality of in-service training programmes you attended so far:

- i. Excellent ()
- ii. Very good ()
- iii. Good ()
- iv. Average ()
- v. Poor ()
- vi. Very poor ()
- vii. Worst ()

F. Use of Technology/ TLM

1. Comment on the technology/tools used during the classroom transaction. (Put tick marks in the appropriate boxes)

Tools /Equipments	Availability		How often used?		
	Yes	No	Frequently	Sometimes	Not at all
Black Board					
LCD Projector					
Over Head Projector					
Internet Facility					
Television					
DVD Player					
Tape Recorder					
Science Kit					
Math Kit					
Globe					
Maps/Charts					
e-Pathsala					

Any Other (<i>specify</i>)					
------------------------------	--	--	--	--	--

G. Pedagogical Activities/Practicum

1. Put tick mark in the following pedagogical activities as followed during teaching and learning.
 - a. Followed simple to complex teaching, learning, process
 - b. Recall the previous learning through present discussion
 - c. Engaging the students with activity based learning
 - d. Encourage the students for asking questions
 - e. Any Others (Please specify the other activities).

H. Innovative Classroom Practices

2. Put tick mark in the following innovative classroom practice as followed during teaching and learning.
 - a. Use ICT in classroom
 - b. Pursues active engagement of all learners in a group
 - c. Encourages learners for self reflection
 - d. Ask questions to encourage divergent thinking
 - e. Stress on process of learning
 - f. Encourage group work and use peer as a resources
 - g. Any Others (Please specify the other activities)

I. Teacher-Pupil Relationships

Respond on the status of Teacher-Pupil Relation in the School. (Put tick marks in the appropriate boxes)

Sl. No	Dimensions	Extent of practices		
		Frequently	Sometimes	Not At all
i.	Establishing cordial relationship			
ii.	Enquire about personal problem			
iii.	Taking extra classes for weak students			
iv.	Health Check up			
v.	Parental care			
vi.	Scholarship to poor but meritorious students			
vii.	Giving scope to pupils to ask questions in the class			

viii.	Any others			
-------	------------	--	--	--

J. School Community Relationships

Respond on the process of School-Community Relationship in the School. (Put tick marks in the appropriate boxes)

Sl. No.	Activities	Extent of practices		
		Frequently	Sometimes	Not At all
i.	Parent teacher meeting			
ii.	Invitation to parents during occasions			
iii.	Involvement of community in school development			
iv.	Community activities of school			
v.	Organizing awareness programme in the community			
vi.	Any others			

K. Extension Activities (Extra Mural Lectures, Seminars, Workshops, Study Tours etc.)

1. Does your school organise extra mural lectures by inviting eminent teachers?

1-Yes/ 2- No

If 'Yes' on which subjects extra mural lectured are arranged

- | | |
|---------------------------|-------------|
| 1. Language Subject | 1-Yes/ 2-No |
| 2. Social Studies Subject | 1-Yes/ 2-No |
| 3. Science Subject | 1-Yes/ 2-No |
| 4. Any Others | 1-Yes/ 2-No |

If 'No' Pleases give reasons

2. Does your school organise seminars and workshops on the current topics of the major subjects?

1-Yes/ 2-No

3. Does your school organise study tours for better learning? 1-Yes/ 2-No

L. Carrier Counselling and Placement Cell

1. Is your school having career counselling and placement cell for students?
1-Yes/ 2-No
2. If 'Yes', mentioned the name of careers on which the counselling is offered.

M. School Governance and Management

1. School has a regular Master, 1- Yes/ 2 – No
2. Availability of School Management Development Committee. 1- Yes/ 2 – No
3. SMDC is constituted as per RMSA/SSA norms. 1- Yes/ 2- No
4. Please mention about the members of the SMDCs.

SMDC Members	Position	Qualification	Occupation

5. SMDC holds monthly meetings. 1- Yes/ 2- No
6. Proceedings of meeting are recorded. 1- Yes/ 2- No
7. Baal Sansad is constituted in school. 1 – Yes/ 2 – No
8. Grievance readdressal cell is available. 1 – Yes/ 2 – No
9. Complaint/Suggestion box available in School. 1 – Yes/ 2 – No
10. Toll free number written prominently on school wall. 1 – Yes/ 2 – No
11. Academic calendar is available in school. 1 – Yes/ 2 – No
12. School Improvement Plan is available in school. 1 – Yes/ 2 – No
13. School has registers for different activities

Name of Register	1-Yes / 2- No
Enrolment	
Attendance	
SMDC Register	
Cash Register	

14. Comment on the monitoring / supervision of training programme by the higher authorities.
(Put tick marks in the appropriate boxes)

Sl. No	Name of authorities	Frequency		
		Frequently	Sometimes	Not at all
1	State Level Authorities			
2	District Project coordinator			
3	District Pedagogy Coordinators			
4	BRC coordinators			
5	CRC coordinators			
6	School Inspectors			
7	Any other (specify)			

Give your suggestions for the improvement of monitoring/supervision mechanisms of in-service training programme

15. Biometric attendance done in school. 1- Yes/ 2 - No

N. Other Quality Issues

1. State the major weaknesses of the quality issues related to school improvement.

- i. _____
- ii. _____
- iii. _____
- iv. _____
- v. _____

2. Give your overall suggestion for the improvement of the quality of the School related to the teaching, learning and its environment.

- i. _____
- ii. _____
- iii. _____
- iv. _____
- v. _____

Table No. A.15: Teacher Profiles

Sl. No	Name of the Teacher with the designation	Nature of Teachers RT(1); P/CT(2); PTT(3)	Male (1) Female (2)	Caste GEN(1); SC(2); ST(3); OBC(4); Other(5)	Educational Qualification 1- Degree/ 2- Degree + B.Ed / 3- Degree + DIET/4- PG + B.Ed and above	Subject which Teach; 1 for Eng/2 Hindi/3 for San/4 for Sc/ 5 for SS/Ma/	Experience in years	No of in-service training attended in last 3 years;
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
15								
15								

(RT- Regular Teacher, PT- Para Teacher, CT-Contractual Teacher, PTT- Part-Time Teacher,)

Table No. B.6: Enrolment of Students in Classes IX-X from 2015 to 2020

[illegible]

Table No. B.6: Retention of Students in Classes IX-X from 2015 to 2020[illegible]

Sl. No. B.6.

Name of the School:_____ **Block:**_____ **District:**_____

Achievement Results of 10th Last Three Years Report

[illegible]

Name of the School:_____ **Block:**_____ **District:**_____

Achievement Results of 10th Last Three Years Report

[illegible]

Appendix D: Interview Scheduled for Head Master

Interview Scheduled for Head Master

Name of the School: _____

Name of the Head Master: _____

Age: _____. Gender: _____. District: _____

1. What are academic facilities provided by the School for teaching staff?
2. What are the teaching-learning practices followed in School for Student achievement?
3. How your classroom environment is helping you to make a class more meaningful?
4. What are the curricular inputs provided in your School
5. What are the Curriculum components prescribed by your School?
6. What are the major methods of transaction and curricular activities followed by teachers of School?
7. Are there any training facilities for school teachers?
8. What teaching-learning materials, including technological aid, are used by teachers at the time of teaching?
9. Are there any innovative classroom practices in your School?
10. Is there any pedagogical activities/practicum followed during teaching and learning?
11. What are the activities in progress through school-community relationships in your School?

Appendix E: Interview Scheduled for Teachers'

Interview Scheduled for Teachers'

Name of the School: _____

Name of the Head Master: _____

Age: _____. Gender: _____. District: _____

1. What are academic facilities provided by the School for teaching staff?
2. What are the teaching-learning practices followed in School for Student achievement?
3. How your classroom environment is helping you to make a class more meaningful?
4. What are the curricular inputs provided in your School
5. What are the Curriculum components prescribed by your School?
6. What are the major methods of transaction and curricular activities followed by teachers of School?
7. Are there any training facilities for school teachers?
8. What teaching-learning materials, including technological aid, are used by teachers at the time of teaching?
9. Are there any innovative classroom practices in your School?
10. Is there any pedagogical activities/practicum followed during teaching and learning?
11. What are the activities in progress through school-community relationships in your School?

Appendix F: Interview Scheduled for Parents'

Interview Scheduled for Parents

Name of the EMRSs: _____

Name of the Parent: _____

Age: _____. Gender: _____. District: _____

1. How are the pupil-teacher relationships in School?
2. Does School provide any residential facilities?
3. Are there any community participation programs in your School?
4. Whether schools are providing career counseling to the students?
5. What are the basic facilities provided by School to the students?
6. What about the teacher-pupil ratio in your School?
7. Are there any problems related to basic facilities like Infrastructure, teaching-learning materials, etc., in School?
8. Please give some feedback to improve the School?
9. Are the SMC meetings held regularly (once a month)?
10. Are the PTA and MTA meetings held regularly (at least twice a year)?
11. Does the school authority invite the members of SMC on different occasions such as Independence Day and Republic Day?
12. Does the school authority well take your complaints/ suggestions about school/ teachers?
13. What activities, other than classroom teaching, does your School organize?
14. Do the teachers of your School need training?
15. Name the major strengths of your school/teachers.
16. Name the major weaknesses of your school/teachers.

Appendix G: Focus Group Discussion

[Guidelines for Focused Group Discussion (FGD) with Students (Beneficiaries)]

Instructions

1. The field researcher shall conduct Focus Group Discussions (FGDs) with students and questions listed under sections A, B, and C, respectively. These questions, however, are suggestive. More questions can be asked, and further probing may be done based on the discussion.
2. The focus group should consist of 5-10 members.
3. A purposive/judgment sampling technique will be used to select members.
4. There shall be at least two persons- one called moderator, who asks questions, and the other called rapporteur, who records the conversation.
5. The members participating in the FGD should sit comfortably in a semi-circle.

Identification Information

Name of the School:.....
Date and Time:.....
Number of students participating in FGD:.....
Number of participants:.....
Name of the Moderator:.....
Name of the Rapporteur:.....

Focus Points to be discussed:

- 1) Core Teaching Skills, e.g., Questioning, Use of Blackboard, etc. by Teachers
- 2) Methods / Approaches of Teaching
- 3) Use of Technology/ TLM
- 4) Student Participation in the Classroom
- 5) Teachers' Response and Treatment/ Pupil-Teacher Interaction
- 6) Interaction among Pupils
- 7) Student's Evaluation Process
- 8) School Environment

DISCUSSION QUESTIONS

Core Teaching Skills

The researcher will give some **idea about the teaching skills** to be discussed **concerning the activities; the teacher performs in the classroom** while teaching, such as writing on the blackboard, asking questions, etc.

1. Do the teachers ask questions before and during the teaching? _____

2. Do the teachers ask questions related to your topic & course of study? _____

3. Do the teachers ask questions related to your prior experience & general knowledge?

4. Do the teachers give sufficient time to think about the answer? _____
5. Do they write the important point on the blackboard while teaching? _____

6. Do the teachers write clearly on the blackboard and make it visible to all students? _____
7. Are all the students able to listen the teaching of the teachers? _____

Method and Approaches of Teaching

Discuss the **methods or approaches** of teaching in the classroom, such as play way, lecture, participatory, etc.

8. Discussions on the methods / approaches of teaching followed by the teachers in the class such as story telling method, play way method, participatory method, lecture method etc.

Use of TLMs

The basic idea will be given by the interviewer about **learning materials or equipment** used in the classroom for the teaching-learning process, such as charts, maps, computers, TV, etc.,

9. Do the teachers use the charts, maps, globes, blackboard etc. while delivering their lesson? _____

10. Whether teachers use computer, LCD, tape recorder, television, radio, projector in deliver the lesson in the class room? _____

11. Whether teachers were using charts, maps, globes, blackboard etc before the training?

12. In which subject, the teacher uses TLM? _____

13. What other teaching learning materials are used by the teachers? _____

Student Participation

Discussion on how the students participate in the classroom by **asking questions, giving suggestions**, and other activities

14. Do the teachers allow the students to participate in classroom transactions? _____

15. Do the teachers encourage you to participate in classroom teaching learning process? _____

16. Do the students ask questions during the teaching in the classroom? _____

17. What are the activities organized in the classroom in which students participate.

18. Are you happy for your involvement in those activities? Why? _____

Teachers' Response and Treatment/ Pupil-Teacher Interaction

An idea will be given whether the **students interact in the classroom** without any fear, whether the teachers praise them for the same, the scope for co-curricular activities, etc.

19. Do you interact with your teacher in the class without any fear? _____
20. Do you feel afraid of your teacher asking questions related to the lesson? _____
21. Do your teachers appreciate while you answer the questions in class? _____

22. Do your teachers help you to solve the problem that arises in your subject matter? _____

23. Do your teachers arrange any remedial classes to solve your problems? _____
24. Do your teachers cooperate with you to do any co-curricular activities? _____
25. Do your teachers encourage you in your studies and other activities? _____
26. Do your teachers behave friendly? _____

Interaction among Pupils

Discuss whether the students have **a cordial relationship and whether they participate in academic competitions** such as essays, debates, group discussions, etc.

27. Do you have good cooperation among yourselves? _____
28. Do your teachers organize any debate competition in which you are actively participated in the class? _____
29. Do your teachers involve you for group discussion in the class related to any particular topic? _____
30. Do you discuss your problem among yourselves? _____

Student's Evaluation Process

Discuss how the **teachers evaluate the students' achievement** in the classroom; whether classroom assignments and home assignments are given and evaluated.

31. Do your teachers give home assignments, class work, and oral test? _____

32. Do your teachers assess your performance in debate, essay, drawing competitions, etc.?

33. Do your teachers assign grades to your sincerity, punctuality, truthfulness, cleanliness during the classroom performance? _____

34. Whether your teachers conduct weekly test, monthly test, surprise test, half yearly test and annual test in the class? _____

School Environment

The discussion will focus on teachers' role in maintaining the **school environment** in terms of beautification through plantation in the garden, decoration of the wall; cleanliness of toilets; playground.

35. Whether the sitting facilities in the classroom, discipline, painting of great person's pictures on walls, writing of national anthem/song on the wall visible to all students, cleanliness of blackboard, the grouping of students (homogeneous/ heterogeneous), etc. are maintained.

36. Whether teachers take appropriate actions for beautification of the school in terms of the plantation in the garden, decorating the school's walls.

37. Whether there boundary wall of the school, toilets separately for boys and girls, field to play, cleanliness are maintained and how the teachers manage the same. _____

Researcher

Appendix H : Classroom Observation

Tool for Classroom Observation

Date of Observation:

Name of the Class:

Name of the District:

Name of the Teacher:

Name of the Block:

Qualification of Teacher:

Name of the School:

Subject:

Topic:

Duration of Period:

Sl. No	Aspects / Criteria	Rating: Very poor to Excellent(1-5)				
		1	2	3	4	5
1	Introduction					
	Looks class to settle before teaching					
	Tests previous knowledge before teaching					
	Engages students to create interest towards topic					
	Creates readiness among learners					
	Uses appropriate strategy for introducing topic					
	Declares the topic before start teaching					
2	Presentation					
	Teaches basing on what students already knows					
	Presents information in a clear and organized manner					
	Explains in simple language and familiar language					
	Voice is audible to every corner of classroom					
	Prompts learners for enquiry					
	Asks questions with precision and clarity					
	Distributes questions throughout whole class					
	Allows reasonable time to students for answering the question					
	Gives appropriate reinforcement in proper time					
	Blackboard work is legible					
	Uses different activities (listening/reading/doing) in class					
	Uses teaching aids properly					
	Uses locally available things as teaching aid					
	Provides varieties of examples including local ones					
	Gives examples from real life situations					
	Teaching is interactive					
	Maintains proper discipline					
	Assists the learner at the time of difficulty during class activity					
	Allows learners to interact with each other					
	Teacher has sound content knowledge					
	Teaches how to learn a topic					

Appendix H

	Suggests other learning materials for references					
	Uses ICT in classroom					
	Activates learners during the class					
	Encourages learner for asking questions					
	Pursues active engagement of all learners in a group					
	Encourage learners for self reflection					
	Asks questions to encourage divergent thinking					
	Uses primary source/material for teaching					
	Stress on process of learning in class					
	Encourage group work and use peer as resources					
	Relates the subject with other school subjects					
	Summarizes at the end of the class					
3	Assessment/ Evaluation and Feedback:					
	Assess learners understanding throughout the class					
	Asks questions as per objectives of lesson					
	Gives importance on learners work in assessment					
	Helps learner in self assessment					
	Provides home assignments					
	Provides feedback					
4	Teacher Personality					
	Active throughout the class					
	Well dressed					
	Enjoy the classroom teaching					
	Confident					
	Democratic					
	Co-operative					
	Inclusive in Nature					
	Flexible in Movement					
	Over all personality					

Appendix I: Photographs

Interview with Head Master



Interview with Teachers



Interview with Parents



Focus Group Discussions with Students



Classroom Observations



Quality Education in Secondary Schools of Tribal Districts of Odisha in the context of Samagra Shiksha Abhiyan

by Dhaneswar Behera

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