

## INFLUENCE OF SOCIAL INEQUALITIES ON SCIENCE EDUCATION IN CONTEXT TO MODERN EDUCATION

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### ABSTRACT

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Generally, Inequality refers to the lack of equality. Two things are, therefore, unequal when they are not equal: that is, when they are unequal, asymmetric, or different. The use of the concept of inequality refers to the relation of order of order that is established between values that are different. This can cause one value to be greater or less than another, but not the same. Social inequality results from a society organized by hierarchies of class, race and gender that unequally distributes access to resources and rights. This can manifest in a variety of ways, such as income and wealth inequality, unequal access to education and cultural resources, and differential treatment by the police and judicial systems, among others. Social inequality goes hand in hand with social stratification. Social inequality is characterized by the existence of unequal opportunities and rewards for different social positions or positions within a group or society. It involves structured and recurrent patterns of unequal distribution of goods, money, opportunities, rewards and punishments. The condition of school education in Jharkhand has improved, especially in infrastructure in the field of primary and secondary education. Much work remains to be done in secondary education. However, there is still a lack of quality education in government schools. Science is a method of thinking, a method of acquiring new knowledge. The word 'science' has the root word knowledge and completely tested knowledge along with rational knowledge. In the present experimental and realistic era, that knowledge was given shelter which is useful for real life. Science education has created a revolution in human life, as a result of which the modern life of the person started paying attention to useful education in practical life rather than purely literary education and emphasis was laid on providing important place of scientific subjects in the curriculum. Jharkhand's tribal population's claim to the right to preservation of their socio-cultural distinctiveness has a long, complex and fluid history. The goal of realization of social inequality is contingent on the ability of the state and public discourse to enforce transparency and accountability of duty-bearers and participation of social

inequality in the governance of their affairs. To ensure this, some of the process towards the science education needs to be re-examined to restructure them in accordance with the framework of curriculum.

**Key words:** - Inequality, Science, Education, Socio-economic, Curriculum.

## 1. INTRODUCTION

Science is very important in this century because of science is useful for everyone. Everyone has to know how to live in the society. It is usually said that India lives in its villages. But it is unfortunate to state that while the cities have grown immensely over the last 20 years the rural areas have not seen that kind of development. There is much evidence of persisting inequalities in education in most education systems. In India especially, the empirical findings of the recent decade clarify the strong connection between social origin and educational success. As a result of the organization and the structure of the Indian school system, along with the fact that there is no strong tradition of analyzing school achievement in Indian educational research, predominant scientific attention – while researching the connection between social origin and educational success – has naturally only been focused on investigating educational participation rates among different social strata. This is obvious, as in Indian Germany many parallel roads lead to educational attainment, making the Indian education system, internationally compared, and an outlier education system. In Indian, children start compulsory schooling at about the age of six. From grade one through to grade four; they attend elementary school, where the subjects taught are nearly the same for all children. At about the age of ten, when they have completed grade four, children are separated according to their academic performance in primary school and assigned to one of three different educational tracks: lower secondary school, intermediate secondary school or upper secondary school

For India's economy to be well-built, the rural economy needs to grow simultaneously along with the urban economy. Rural areas are still inundated by problems of malnourishment, illiteracy, unemployment, poverty and lack of basic infrastructure like schools, colleges, hospitals, sanitation etc. This has led to the youth moving out of villages to work in cities. Indian villages need to grow in tandem with cities and quality of life has to improve there for achieving inclusive growth. In order to alleviate poverty persistently from India, rural India should be free

from poverty and hardship. So, socio-economic development is a matter of great concern for the upliftment of rural people as well as India as a whole. In India, one of the most marginalized communities, who despite special enabling provisions for them in our constitution. A legal framework for the implementation of these provisions and several targeted public policy initiatives, have continued to suffer deprivations of different kinds. In other words, the rights guaranteed to the tribal population have been grossly violated. The tribal population not only faces severe socio-economic marginalization but also the threat of undermining of their distinctive culture and identity, which in turn is rooted in their livelihood patterns.

Jharkhand's mineral and forestry resources were of keen interest to the colonial economic enterprise, and this situation has little changed in the post-colonial state. The region has seen a sustained campaign for autonomy in order to claim the rights of the tribal population of the region over land, water, forests and other resources. The State of Jharkhand was created in the year 2000 after a long and protracted demand for a separate State. Once created, the recognition of tribal rights to autonomy gained in importance. However, the original claim of a 'Greater Jharkhand' carved from five States has also become a non-issue, politically. The larger tribal struggle was also therefore undermined. The longstanding demand for a separate State in Jharkhand has underlined the distinctive tribal heritage and culture of the region as the primary reason for alternative administrative and political arrangements. However, the question of a development-deficit in the region gradually became an important part of the discourse of autonomy in the Jharkhand region and occasionally, overshadowed the issue of tribal rights and autonomy.

Decade after decade, we were following the methods of traditional education but the 21st century has changed the wave. The modern education system is the latest version of the 21st century that delivers education smartly in different schools and institutions. The recent 21st century is the generation of technology, where people talk with machines and code. We are dealing with almost everything with computers, laptops, and smart phones. Hence, the recent educational system has replaced the Blackboard with Whiteboard and Whiteboard to Smart board. This smart board is running with the help of a machine that lets you enter into the different worlds of education. This education will let your child have different experiences provide the depth of the education to the core level. The CBSE School is become more prominent in delivering the best education in

Science, Commerce, and Arts with the help of the modern education system. However, modern education is not just limited to providing the best education but it also helps in aiming to foster critical thinking, life skills, value education, analytical skills, and decision-making skills in students. Modern education systems are bringing the mode of education in Laptop, Desktop, and Mobile in both Audio and Video format. This helps in bringing the different platforms such as YouTube, Podcasts, E-books, Movies, etc. to educate learners and make the learning process more engaging and interesting. The present study has been providing guideline for the future education trainers, teachers and policy makers while taking any decision regarding the modern education system approaches in schools education of students without any inequality.

### **1.1 Statement of Aim**

Education and awareness are two of the most powerful weapons in the fight against rural poverty and sustainable development in rural areas. Evidence shows that non-attendance in school, early drop out of students; adult illiteracy and gender inequality in education are disproportionately high in rural areas. This research has focused on the “Influence of social inequalities on science education in context to modern education”. The study looked at both positive and negative influence of social inequality on performance in science of secondary school students in context of modern education.

### **1.3 Objectives**

**Objective 1:** To find the influence of gender difference of the students on their achievement in science

**Objective 2:** To study the awareness of the parents towards the modern education of their children in science.

**Objective 3:** To study the influence of parental qualification on the achievement of science students.

**Objective 4:** To study the factors of social inequalities influences the modern education of science students.

### **1.4 Hypothesis**

**Hypothesis 1:** There exists no significant gender difference in academic achievement in science.

**Hypothesis 2:** There is no significant relationship between parental awareness towards the children's studies and the modern education of the students in science.

**Hypothesis 3:** There is no significant relationship between parental qualification and achievement of science students.

**Hypothesis 4:** There is no significant relationship between the financial condition of the parents and modern education of science students.

## 2. REVIEW OF RELATED LITERATURE

The Review of related literature involves the systematic identification, location, and analysis of documents containing information related to the research problem. The term is also used to describe the written component of a research plan or report that discusses the reviewed documents. These documents can include articles, abstracts, reviews, monographs, dissertations, other research reports, and electronic media. The literature review has several important purposes that make it well worth the time and effort. The major purpose of reviewing the literature is to determine what has already been done that relates to the topic. This knowledge not only prevents to all from unintentionally duplicating another person's research, it also gives to understanding and insight the need to place the topic within a logical frame.

Liou and Liu (2015) examined the issues of students' motivational beliefs in science learning and their relations with science achievement. Data of Taiwanese fourth and eighth graders from the Trends in International Mathematics and Science Study 2011 were examined. Students' self-concept and intrinsic interest as motivational beliefs, and science scores in general and in different cognitive domains were used as measures in this study. The results indicate that students' motivational beliefs decrease over grades. The relations between the eighth graders' motivational beliefs and science scores are positively stronger than those of the fourth graders. Meanwhile, students' self-concept has a greater predictive power than intrinsic interest for science scores in both grades.

Jebson and Hena (2015) investigated the attitude of students toward science subjects in senior secondary schools in Adamawa state. A sample of 250 science students was selected by using stratified random sampling technique. Science Students' Attitude Questionnaire (SSAQ) was used to collect the data. The results showed that students in Adamawa state have positive attitude towards science subjects and gender has significant effect on their attitude. Boys were having more positive attitude as compared to their female counterparts. Age difference among boys and girls in the secondary schools in Adamawa state does not have influence on their attitude toward the study of science subjects.

NCERT (2006) conducted a study on innovative practices to ensure school effectiveness in favor of disadvantaged sections of students and parents. One of the key findings of the study indicated that even better infrastructure in rural areas contributed to the comparatively lower dropout rate in the lower primary stage. In addition, the accountability of teachers increased significantly due to the decentralization of management. In addition, due to the transfer of power from the state to the local body and administrative decentralization, community participation increased substantially and a sense of cleanliness, pride and belonging was created in the school.

Research has established the place of social interaction, social activity and social context in language acquisition (Vygotsky, 1978). The larger proportion of secondary students in rural Jharkhand is either poor or disadvantaged, their families cannot afford to make an optimum investment in their education. Such socio-economic realities influence the goal, expectation, future aim etc (Pratham (2007) of the students and because of such factors students cannot equally concentrate on their study.

Normally middle and upper class parents instill an academic background into their children before they even start their academic education which leads them ahead in academic field, (Akinwanmide, T. K. (2012).) hypothesizes that in most countries, parental education is positively related with graduation in a top institution and a prestigious field of study. The role of environmental factor in first or second language acquisition affects the power and scope of any innate linguistic or cognitive contribution which becomes necessary to posit in the learner (Larsen-Freeman and Long, 1991).

### **3. Methodology**

Methodology is a systematic and theoretical approach to collect and evaluate data throughout the research process. In this section, it clearly describes specific data collection methods. The study involved selected secondary school students of Dhanbad districts. This is because of the researcher's close proximity and interactions with respondents. This study is mainly based on students self reported information of their experience, education, facility, family background that can be related to their academic achievement of science. Descriptive survey method has been used in the present study. The study is conducted based on mainly primary data, which has been collected from different schools of Dhanbad, districts of Jharkhand. Secondary data and pertinent literature has been compiled from published sources.

#### **3.1 Population of the Study**

Population is the whole group of people being studied. Population refers to individuals i.e. the focus of the study. Population of this study comprises 100 students in secondary school of class X of Dhanbad. The research targeted students of government and private secondary schools in Dhanbad and their parents. The investigator tried to give equal representation to boys and girls in the sample. Since there are co-educational schools and single sex schools, both types of schools will be selected. In research, a population doesn't always refer to people.

#### **3.2 Tools and techniques**

Questionnaires allow researchers to gather information and can also collect comparable information from a number of respondents. The 5-point Likert-type scales were used in the questionnaire for both negative and positive statements and learners were allowed to put a tick in one of the scales based on their opinions. Most of the parents and students opened positively for the statement which had a five point scale (SA, A, U, D, SD).

#### **3.3 Procedure of the data collection**

The study was conducted in the academic session 2021-22. At the time of study strength of the targeted students was present. The study was taken by the students individually. Ten groups of

students belonging to 10 different schools were making to participate in the study. The researcher personally visited the selected schools and administered the questionnaires to the respondents. The study has adopted a combination of methodological tools. Background library work and desk research were conducted for placing the study in its context but much of the research materials for addressing the questions were collected with the help of field research.

#### 4. Analysis and Interpretation

Data Analysis is the process of systematically applying statistical and/or logical techniques to describe and illustrate, condense and recap, and evaluate data. Indeed, researchers generally analyze for patterns in observations through the entire data collection phase. Data analysis is the most crucial part of any research. Interpenetration is essential for the simple reason that the usefulness and utility of research findings lie in proper interpretation. The Influence of social inequalities on science education in context to modern education has been evaluated using questionnaire based on Likert scale. It consists of several questions enquiring upon the various aspects of teaching reading, where the respondents had to tick mark the most appropriate frequency (Never, Rarely, Sometimes, Very Often and Always) according to them. **The hypothesis wise results have been presented in the following tables:-**

**Objective 1:** To find the influence of gender difference of the students on their achievement in science

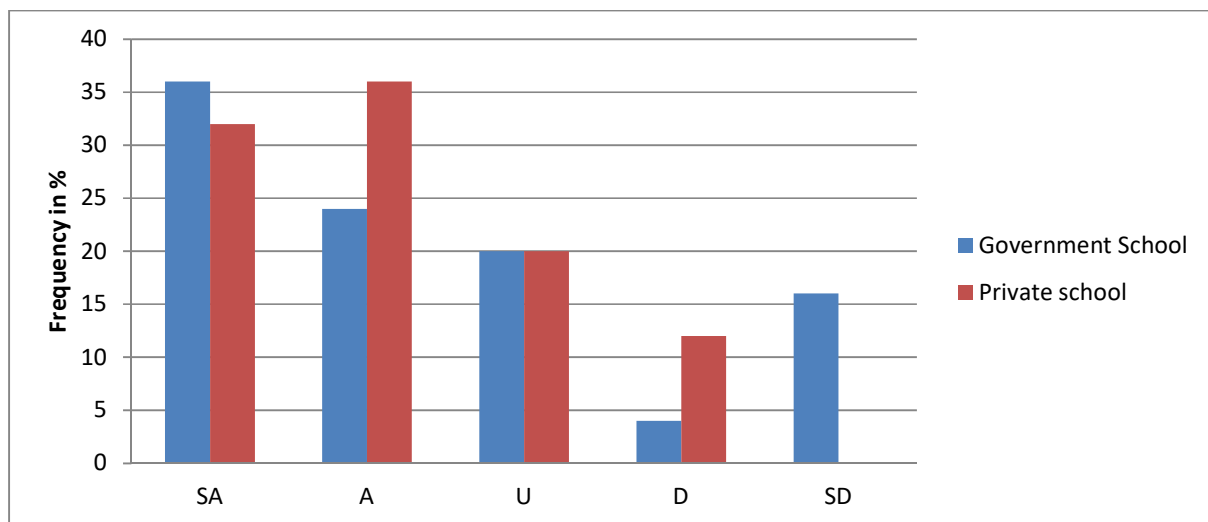
**Hypothesis 1:** There exists no significant gender difference in academic achievement in science.

Opinion	Government Frequency	Percentage	Private Frequency	Percentage
SA	18	36	16	32
A	12	24	18	36
UD	10	20	10	20
D	2	4	6	12



SD	8	16	No	No
<b>Total</b>	50	100	50	100

**Table: 1 Influence of gender difference of students on their achievement in science at Govt. and private schools**



**Figure: 1 Influence of gender difference of students on their achievement in science at Govt. and private schools**

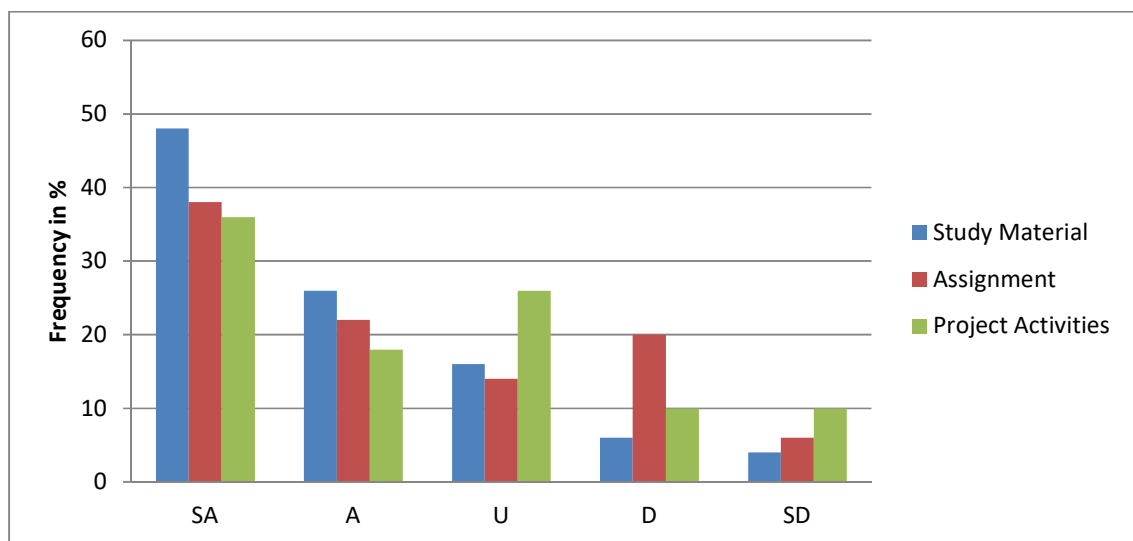
**Objective 2:** To study the awareness of the parents towards the modern education of their children in science.

**Hypothesis 2:** There is no significant relationship between parental awareness towards the children's studies and the modern education of the students in science.

<b>Opinion</b>	Study Material	Assignment	Project Activities
<b>Strongly Agree</b>	48	38	36
<b>Agree</b>	26	22	18
<b>Undecided</b>	16	14	26
<b>Disagree</b>	6	20	10

<b>Strongly Disagree</b>	4	6	10
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**Table1 2: Awareness of the parents towards the modern education of their children in science.**



**Figure 2: Awareness of the parents towards the modern education of their children in science.**

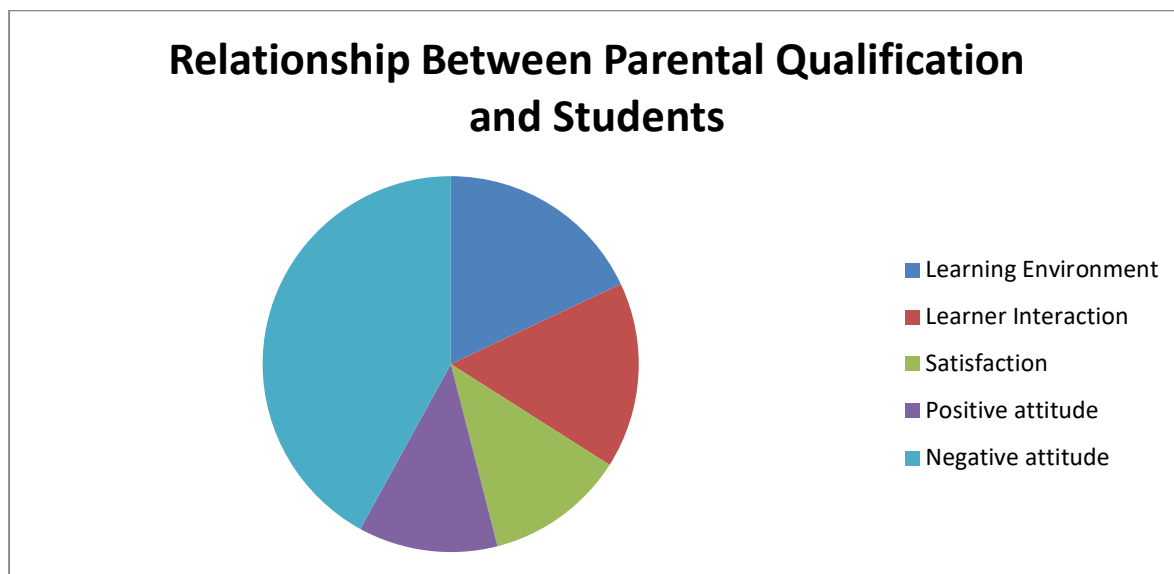
**Objective 3:** To study the influence of parental qualification on the achievement of science students.

**Hypothesis 3:** There is no significant relationship between parental qualification and achievement of science students.

<b>Relationship between parental qualification and students</b>	<b>Frequency</b>	<b>Percentage</b>
Learning Environment	18	18
Learner Interaction	16	16
Satisfaction	12	12

Positive attitude	12	12
Negative attitude	42	42
<b>Total</b>	100	100

**Table1 3: Influence of parental qualification on the achievement of science students.**



**Figure: 3. Influence of parental qualification on the achievement of science students.**

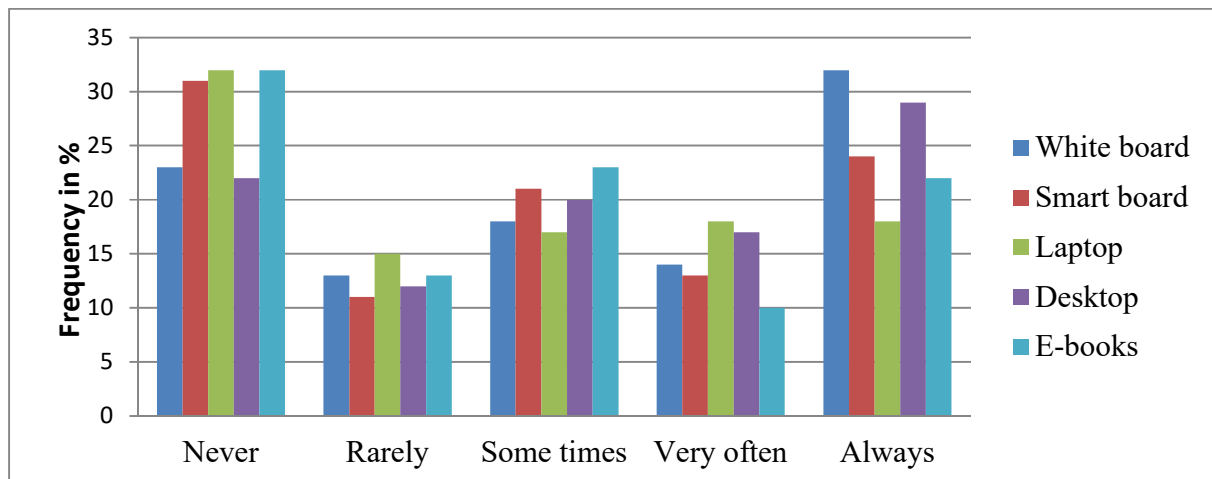
**Objective 4:** - To study the factors of social inequalities influences the modern education of science students.

**Hypothesis 4:** - There is no significant relationship between the financial condition of the parents and modern education of science students.

<b>Factors</b>	<b>Never</b>	<b>Rarely</b>	<b>Some times</b>	<b>Very often</b>	<b>Always</b>
White board	23	13	18	14	32
Smart board	31	11	21	13	24
Laptop	32	15	17	18	18
Desktop	22	12	20	17	29

E-books	32	13	23	10	22
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**Table 4: Various factors of social inequalities influence the modern education of science students.**



**Figure 4: Various factors of social inequalities influence the modern education of science students.**

#### 4.1 Interpretation

Interpenetration is essential for the simple reason that the usefulness and utility of research findings lie in proper interpretation. The Influence of social inequalities on science education in context to modern education has been evaluated using questionnaire based on Likert scale.

From the table 1 and figure1, the opinion of Government schools student's in frequency % such as SA 36%, A 24%, UD 20%, D 4%, SD 16% Whereas Opinion of Private schools student's SA 32%, A 36 %, UD 20%, D 12%, SD Nil. Therefore, the analysis shows, there is no significant gender difference in academic achievement in science. Hence hypothesis-1 is rejected.

The above results of Table 2 & figure 2 the opinion of awareness about parents towards the modern education of their children in science such as; For Study Material; 48% Strongly Agree,

26% Agree, 16% Undecided, 6% Disagree, 4% Strongly Disagree, for Assignment; 38% Strongly Agree, 22% Agree, 14% Undecided, 20% Disagree, 6% Strongly Disagree and for Project Activities; 36% Strongly Agree, 18% Agree, 26% Undecided, 10% Disagree, 10% Strongly Disagree with the statement. The analysis shows the significant relationship between parental awareness towards the children's studies and the modern education of the students in science. Hence hypothesis-2 is rejected.

The above results of Table 3 & figure 3 the relationship between parental qualification and achievement of science students such as; 18 % Learning Environment, 16 % Learner Interaction, 12 % are Satisfaction, 12 % Positive attitude ,42 % Negative attitude with the statement. The analysis shows that significant relationship between parental qualification and achievement of science students. Hence hypothesis-3 is rejected.

The above results of Table: 4 & figure 4 the modes adopted for online teaching-learning such as; White board (Never 23%, Rarely 13%, Sometimes 18% , Very often 14%, Always 32%), Smart board (Never 31%, Rarely 11%, Sometimes 21% , Very often 13%, Always 24%), Laptop (Never 32%, Rarely 15%, Sometimes 17% , Very often 18%, Always 18%), Desktop (Never 22%, Rarely 12%, Sometimes 20% , Very often 17%, Always 29%), E-books (Never 32%, Rarely 13%, Sometimes 23% , Very often 10%, Always 22%) with the statement. The analysis shows that the various factors of social inequalities influence the modern education of science students have been average with the statement. Hence hypothesis-4 is rejected.

## 5. Discussion

Jharkhand's population's claim to the right to preservation of their socio-cultural distinctiveness has a long complex and fluid history. By the time India gained independence, Jharkhandi identity had emerged as a more politically assertive force and the demand for autonomy was already being clearly articulated as premised on a distinctive tribal heritage and culture and the right to preserve this distinctiveness. Alongside, nascent arguments had started emerging to stress the autonomy of the political at the local level, which must be recognized in the administrative arrangements being contemplated for a free India.



Source: Jharkhand Government Website at <http://www.jharkhand.nic.in>

Traditional education is compulsory to bring the child inside the classroom. We need to be physically present to attend the classes which might be difficult based on different criteria and purposes. In terms of the modern education system, it is wider and expanding. Modern education is easily available online and children can attend classes in both audio and video format from their homes. Hence, it is very flexible with its classes. Modern education develops the best relationship between student and teacher with its better and develops the concept. Modern education features the concept with better understanding and example that divert the education to the advanced level with better understanding.

## 6. Conclusions

Social inequality is the main factor of society. In education, inequality directly influences in the achievement of science education. However, the exercise of these rights to education, by the population is another story. The issues of education, which are central to the people for both, preserving their livelihood as well as socio-cultural identity, are under constant threat from various quarters. The introduction of the modern education system is announced to develop education with betterment. It helps in removing the doubts quickly and giving the best explanation to the child for better understanding and concept and solves the problem of

inequality in science education. Formal rights are of little use in the absence of structural conditions for their enjoyment by the population. It is here that the socio-economic rights along with education have significant threats to the realization of inequality of education with socio-economic rights.

The method of modern education is very unique and also very powerful in science. It deals with several types of equipment that bring education more innovatively in the science classroom. It also builds diversity, compassion, and responsibility in the students to grow and develop. Modern education helps you to be socially active and responsible to become valuable for science. Diversity brings inner confidence and safety to the child. Compassion makes we improve the learning method more and bring long-term success and growth inside the child. The responsibility creates the responsible person towards your goal and achievement.

## 6.1 Suggestions

- To improve the skills and analytical process have develop among students in science education.
- It brings diversity, compassion, and responsibility to students.
- Help in removing doubts quickly with better explanation.
- Modern Education helps in expanding the education system all over India.
- It builds an equal relationship between student and teacher along with parents.

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