The Jaunsari Tribe of Uttarakhand: Insights into Cognitive Styles and Domestic Settings

Abstract

The present study has explored the rearing environment vis-à-vis cognitive styles of Jaunsari tribal students in Uttarakhand State of India. One of the five indigenous groups in this state, Jaunsari tribe inhabits the areas like Birahi, Kempty, Mussoorie, and Chakrata of Dehradun and Jaunsar-Bawar areas of Uttarkashi district where facilities for educational and socio-economic development are mostly inadequate or not available at all due to poor access to the mainstream.

This study, therefore, focuses on understanding how the home settings in these marginalized students create a difference in their cognitive development and reveals that a positive home environment enhances cognitive performance significantly. It was noted that students from supportive homes had innovative, systematic, and field-independent cognitive styles driven internally by an internal locus of control. Contrarily, students from less supportive environments demonstrated lower cognitive adaptability. These findings represent a replication of formerly published research and a part of a larger body of evidence indicating that home environments are especially influential in the shaping of cognitive development in general, and among marginalized communities in particular.

The study also suggests that improving livelihood, education, and health opportunities for tribal populations can foster better home environments and support students' cognitive growth. Enhancing these conditions would not only benefit the students personally but also contribute to the social and economic advancement of the community as a whole.

Keywords: Home environment, Cognitive style, Tribes of India, Jaunsaris of Uttarakhand, Tribal population

Introduction

India is one of the biggest democratic countries of the world, has its commitment to the creation of a society free from poverty, ignorance and diseases so that equality, freedom and justice can be made accessible to all the citizens of the country in general and the rural poor and tribal in particular. The constitution of India is makes it clear that as a republic country, India is committed for justice (social, economic, and political), liberty, equality and fraternity (Preamble of Indian Constitution, 1949). After independence, various program and policies have been introduced for the development of the country, still the marginalized groups are far from the mainstream. Number of studies has shown the educational backwardness, poor health, slow economic development, malnutrition etc. among the marginalized group, especially among tribal people (Bisht, 2006, De, K. 2017).

After South Africa, India has the second-largest tribal population of 104.8 million in the world. The Scheduled Tribes account for approximately 8.6 percent of India's population (Census, 2011). Szirmai, (2005)explores the dynamics of socio-economic development and stagnation in developing countries, examining historical, institutional, demographic, sociological, political, and cultural factors.Tribal communities in India face significant educational challenges, and government laws are aimed at addressing these issues, but face challenges in implementing them effectively (Vinu, 2021).

Uttarakhand, a picturesque state in northern India, is not only renowned for its majestic Himalayan landscapes and spiritual significance but also for its rich tapestry of indigenous cultures and tribes. The state, nestled between the northern plains and the southern foothills of the Himalayas, is home to a diverse range of ethnic groups, each

contributing to the cultural mosaic of the region. A variety of ethnic group have been living here for a long time. Uttarakhand is also a home for five tribal groups; Tharu, Boksha, Raji, Bhotiya, Jaunsar which constitute about 2.9 percent of the total population of Uttarakhand (Census, 2011).

The tribal population of Uttarakhand is cantered in the distant and forested regions of Terai and Bhabar, as well as the mountainous regions of Pithoragarh, Chamoli, Uttarkashi, and Dehradun's Jaunsar-Bhabar region. Everyone can be surprised at the astounding diversity of habitats, population, ethnicity, socio-cultural norms and practises, modes of livelihood, languages and dialects, and their interactions with one another and with the rest of the neighbourhood's inhabitants. This is precisely the trait that reinforces their so-called "tribal" characteristics and potential for survival. Table 1 and Figure 1 illustrate the demographic status of various tribal groups. It is clear from these representations that the Tharu constitute the most populous tribal group, whereas the Raji tribe has the smallest population.

Table 1: The demographic status of various tribal groups of Uttarakhand

Tribal Group	Male	Female	Total
Bhotia	19,168	19,938	39,106
Buksha	27,836	26,201	54,037
Jonsari	46,020	42,644	88,664
Raji	366	324	690
Tharu	45,884	45,458	91,342
Total	1,48,669	1,43,234	2,91,903

Source: Statistical Profile of Scheduled Tribes in India (2013)

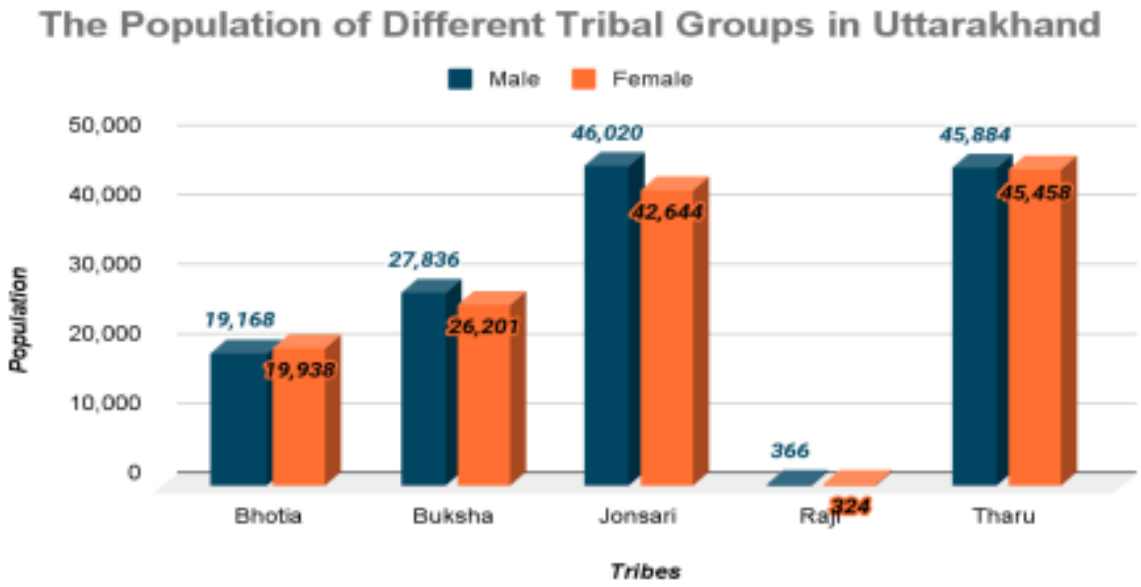

Figure 1: The population of different tribal groups in Uttarakhand

Jaunsari

The Jaunsari are the second most populous tribe in Uttarakhand, and they live in Dehradun, Uttarakhand's Jaunsar-Bawar region. The Jaunsaris are primarily agriculturalists and semi-pastoralists. The people of Jaunsar– Bawar (upper Dehradun district), and Rawain (modern-day Uttarkashi) dress differently than their Garhwali neighbours and conduct different cultural practises. The Jaunsari are well-known for being one of the world's few polyandrous societies (Mohanty, 2006).

According to the 2011 census, the Jaunsari tribe has a total population of 88664 people, accounting for 30.37 percent of the entire tribal population. The Jaunsari tribe has a sex ratio of 927 females per thousand males. This tribal group has a total literacy rate of 71.2 percent. Although this ethnic group has a male literacy rate of 80.5 percent, just 61.2 percent of females are literate.The primary sources of income for this tribal tribe in Dehra Dun District's Jaunsar Bawar are farming and forest resources. In Jaunsar, farming is mostly a

subsistence endeavour that is highly reliant on rainfall. Utilising forest resources is therefore essential to the Jaunsar people's survival (Pandey, 2009). The unique cultural practices and lifestyles of tribal communities are evident in their specific cognitive approaches. Tribal individuals exhibit a different mode of thinking compared to their non-tribal counterparts(John, Singh, and Verma 2011).

Cognitive styles

Everybody faces a variety of issues in their daily lives. We can handle the challenging issue with the help of cognition. Every person uses a different cognitive style to handle different circumstances. Since cognitive styles affect many academic fields, including education, psychology, sociology, personality, business, and the virtual environment, they have become a significant concern in recent years. It seems that there is a great deal of possibilities for using cognitive types in educational contexts (Witkin, Moore, Goodenough, and Cox, 1977,Sternberg & Zhang, 2001). It's critical to comprehend the definition of cognition before going on to cognitive styles.

Cognition is the mental process through which any individual acquires knowledge and understanding. According to Neisser (1967), “Cognition is the process through which sensory inputs are transformed, reduced, elaborated, stored, recovered, and used.” It includes all aspects of intellectual functions such as thinking, perception, imagination, memory, decision-making and problem solving, language, and several others (Corr, 2010). ‘Style’ is a preferred way or unique technique of doing anything. According to Webster's Dictionary, published in 1967, "a style is a distinctive or distinguishing manner or method of acting or performing." Allport (1937), the first psychologist, coined the term "style" to describe a method of recognising various personality types or behavioural patterns. In this context, cognitive styles refer to the preferred way of conducting cognitive processes.

Witkin (1950) coined the term 'cognitive style' to describe the notion that individuals consistently exhibit stylistic preferences for the ways in which they organise stimuli and construct meanings for themselves based on their experiences. He also proposed that these styles include variables within a single dichotomy, such as global-holistic versus focus-detailed, field-dependent versus field- independent. It is also referred to as a psychological dimension representing consistencies in an individual's manner of cognitive functioning, particularly with respect to acquiring and processing information (Ausburn&Ausburn, 1978).

Since 1940, various studies have contributed to the emergence of cognitive style models. A major problem is that there is an extensive list of cognitive styles that were generated by the researchers (Kozhevnikov, 2007).Riding and Cheema (1991) have made significant contributions in the area of cognitive styles. They attempted to synthesise several labels for cognitive style into two bipolar aspects in their review article. They classified cognitive styles using the factor analysis method. They proposed two fundamental dimensions of cognitive style in their work: the holistic-analytic styles and the verbal-imaginary styles. The holistic-Analytic style indicates whether an individual processes information in its entirety or in fragments. The Verbal -imaginary styles refer to an individual's tendency to represent information verbally or visually.

In the present study, cognitive styles inventory was developed to assess the cognitive styles of adolescent students. Four dimensions were identified for this inventory. These are locus of control, systematic and intuitive styles, adaptive and innovative styles, and field-dependent and field-independent styles.

Rotter (1966) introduced the notion of locus of control. He characterizes locus of control as the perception that reinforcement is linked to an individual's actions, yet not wholly dependent on them. In such cases, outcomes are often attributed to factors such as luck,

chance, or fate, or are seen as influenced by powerful external agents, or rendered unpredictable due to the intricate nature of the surrounding circumstances. When a person perceives an event in this way, it is referred to as a belief in external control. Conversely, if an individual perceives that an event is influenced by their own actions or stable personal traits, this is termed a belief in internal control.

Systematic and intuitive cognitive styles are related with the problem-solving skill of the learners.Individuals with a systematic cognitive style are more likely to use rule-based reasoning. Individuals with an intuitive style are more likely to use association reasoning (Smith and DeCoster, 2000). Adaptive and innovative cognitive styles reflect the decision-making ability of the learners.Adaptors are distinguished by their precision, discipline, and consistency. They seek the answer to a problem in a previously understood and tested manner, look envious of boredom, and maintain a high level of precision for an extended period of detailed work. Innovators are characterised by undisciplined thought processes and peripheral approaches to completing tasks and resolving problems that transcend traditional norms. They are frequently considered unsound and impracticable in group settings (Sadler-Smith, and Badger, 1998).

Field-dependent and field-independent refer to the degree to which an individual is dependent or independent of the surrounding perceptual field's organization. "A person with a field-dependent style is more likely to rely on external referents as guides in information processing, whereas a person with a field-independent style tends to place more weight on internal referents." (Witkin et al. 1962, 1977).

Number of studies have emphasized the significant effect of cognitive styles in the field of education, academic achievement, problem solving and decision making. (Witkin, Moore, Goodenough, and Cox, 1977)Cognitive types can expand guidance and career

decision-making, improve teaching strategies, enrich teacher behaviour, boost student learning, and adjust learning environments (Messick,1984).

In present study, the researcher tried to identify cognitive styles of tribal students wanted to see the effect of home environment on cognitive style. Some studies suggested that these marginalized people use various type cognitive styles to deal various situation of their life, and these styles are influenced by their specific culture, languages and peculiar lifestyle.Pewewardy (2002) found in a study that indigenous people's learning styles are influenced by language, culture, and heritage. The researcher stated that social/affective emphasis, harmony, holistic perspectives, expressive creativity, and nonverbal communication are the main characteristics of how American Indian/Alaska Native students learn. The researcher emphasized that learning style identification is beneficial for developing curricula, conducting assessments, and improving teaching methods.

Though a number of policies and programs have been introduced by the Indian government to marginalise groups after independence, they still face a number of challenges. Prasadh and Prasadh (2022) indicated that achieving universal education presents a significant challenge for a vast and developing nation like India. This endeavour is particularly difficult for tribal students, who face additional obstacles due to their geographical isolation and various other difficulties. Education can play a vital role in the development of these marginalized people.

Joshi (2016) conducted a study examining the impact of education on the lifestyles of young individuals from the Jaunsari community in Uttarakhand. His findings indicated that education played a vital role in transforming the living conditions of these marginalized populations. The research revealed that, upon obtaining their degrees, these individuals

engaged with various groups and became acquainted with new career opportunities and modern technologies.

The potential for a child's development, encompassing education and various skills, is significantly influenced by the home environment. Factors such as parental educational attainment and socio-economic status collectively play a crucial role in shaping a child's growth and opportunities.A research investigation led by Wang, J., Doyle, J., Hancock, P., Mak, C., and Liu, S. (2021) aimed to explore the influence of indoor environmental quality (IEQ) on the cognitive abilities of participants.

The study identified five key factors—indoor air quality, thermal conditions, lighting, noise, and non-light visual elements—that differentially impact cognitive functions. To facilitate a comprehensive analysis of the relationship between IEQ and cognitive performance, the researchers categorized cognition into five domains: attention, perception, memory, language function, and higher-order cognitive skills. They performed an extensive manual review of 66 targeted studies and employed co-occurrence analysis to map the connections between IEQ and cognitive factors by examining keywords and abstracts from a total of 8,133 studies. The findings indicate that while poor IEQ conditions are often linked to diminished cognitive performance, the influence of specific IEQ factors on various cognitive functions is notably varied.

Tribes represent a marginalized segment of society, characterized by their unique cultural identities. Numerous studies have indicated that these marginalized students exhibit distinct cognitive and learning styles that differ from those of other societal groups. John, Singh, and Verma (2011) conducted a study on thinking styles and academic performance among tribal (300) and non-tribal (300) students. The research was carried out in Chhattisgarh's Buster district. Results of the study revealed a significant difference in the

thinking styles of tribal and nontribal adolescents. Two thinking styles, hierarchic and local, contribute positively, while the legislative style contributes negatively to students' academic achievement.

John & Singh (2014) reported that students from privileged backgrounds perform better in school results and make more progress in school than children from the deprived group. In their research article, John and Singh (2014) reported that the cognitive structure of tribal people might not have developed because of their depravedness, and they do not give importance to learning. Therefore, their achievement is lower than the privileged.

In a study Sianturi, SuliantinansFitrianti (2022) studied relationship between cognitive styles and indigenous students' mathematics academic outcomes and reported cognitive styles of indigenous students influenced the mathematic achievement of those who pursue higher education.

Prasad and Prasad (2022) studied the learning styles and academic achievement of tribal students of Alluri Sitarama Raju (ASR) district of Andhra Pradesh and reported that learning styles and academic achievement are related positively. The study emphasised that proper identification of learning styles leads to good academic achievement of the learner, and it also helps the teachers in deciding pedagogical strategies.

Tribal communities in Uttarakhand have not fully benefited from development processes, with indicators like demography, sex ratio, education, health, employment, and employment status showing disparities (Shah, & Joshi, 2018). The present study aimed to study the cognitive styles of Jaunsari tribal students in relation to their home environment.

Objective

- To study the cognitive styles of Jaunsari tribal students of Uttarakhand in relation to their home environment

Hypothesis

H01 there is no significant difference in cognitive styles between male and female Jaunsari tribal students in relation to their home environment.

Sub Hypotheses

- H0 1.1 There is no significant difference in Locus of control between male and female Jaunsari tribal students in relation to their home environment.
- H0 1.2 There is no significant difference in systematic and intuitive cognitive styles between male and female Jaunsari tribal students in relation to their home environment.
- H01.3 There is no significant difference in adaptive and innovative cognitive styles between male and female Jaunsari tribal students in relation to their home environment.
- H01.4 There is no significant difference in field dependent and field independent cognitive styles between male and female Jaunsari tribal students in relation to their home environment.

Methodology

The researcher has applied descriptive survey method to accomplish the objectives of the study.

Population

The focus of this research was on the Jaunsari tribal students residing in the Dehradun district of Uttarakhand. The population for this study comprised all Jaunsari students enrolled in the 11th and 12th grades at government schools within the Dehradun district.

Sample

This research focuses on students from the Jaunsari tribe, which has the largest population concentrated in three blocks of Dehradun: Chakrata, Kalsi, and Vikas Nagar. In the initial phase of sampling, the researcher intentionally selected these blocks for inclusion. The study encompassed six schools, chosen based on the number of tribal students enrolled, specifically G.I.C. Chakrata, G.I.C. Quansi, G.I.C. Sahiya, G.I.C. Kalsi, and G.I.C. Herbartpur. A total of 150 students, comprising 60 males and 90 females, were randomly selected using Tippet's Random Number Table from these six educational institutions within the Dehradun district.

Tools of the Study

The researcher used Cognitive Styles Inventory (developed by the researcher) and Home Environment Scale (Dhoundiyal,2006). Both are the standardized tools.

Statistical techniques

1. In order toanalyse the data, the researcher computed various statistical measures, including percentiles, percentages, means, and standard deviations. To investigate the influence of the independent variable, which is the home environment, on the dependent variable, cognitive style, the researcher utilized Two-way ANOVA along with post hoc testing, employing the SPSS software for these analyses.

Analysis and interpretation

H0.1There is no significant difference in cognitive styles among male and female Jaunsari tribal students in relation to their home environment.

Table 2: Two-way ANOVA of cognitive style and home environment

Source	Sum of Squares	df	Mean Square	F	Sig. (0.05)
Gender	.423	1	.423	.002	.964
Home environment	3149.755	2	1574.877	7.578	.001
Gender * Home environment	481.363	2	240.682	1.158	.317

The data presented in the preceding table indicates that there is no notable difference in the cognitive styles of male and female Jaunsari tribal students, as evidenced by an F value of .002 and a p-value of .964, which exceeds the threshold of 0.05. Conversely, the influence of the home environment was determined to be significant, with a calculated F value of 7.578 and a p-value of 0.001, which is less than 0.05. Additionally, the interaction effect between gender and home environment on the cognitive styles of Jaunsari tribal students was found to be insignificant. The home environment was classified into three categories: poor, average, and good. To ascertain which specific type of home environment exerts a significant effect on cognitive style, the researcher proceeded with a post-hoc analysis. The results of this analysis are illustrated in Table 3.

Table 3: Post-hoc analysis of cognitive style and home Environment

Home environment	Home environment	Mean Difference	Std. Error	Sig. (0.05)
Poor Home	Average Home environment	-2.0339	2.75	.741
environment	Good Home Environment	-14.1401	3.20	.000
Average Home	Poor Home environment	2.0339	2.75	.741
environment	Good Home Environment	-12.1062	2.97	.000
Good Home	Poor Home environment	14.1401	3.20	.000
Environment	Average Home environment	12.1062	2.97	.000

The above table shows that there is a significant difference in cognitive styles of students who belong to poor home environment and good home environment. Though there was no significant difference between the students who belong to poor home environment and average home environment as the p value was .74(>0.05). Students belongs average and good home environment differ significantly at the 0.05 level of significance. It can be observed with the mean scores which are demonstrated in the line graph (figure 2).

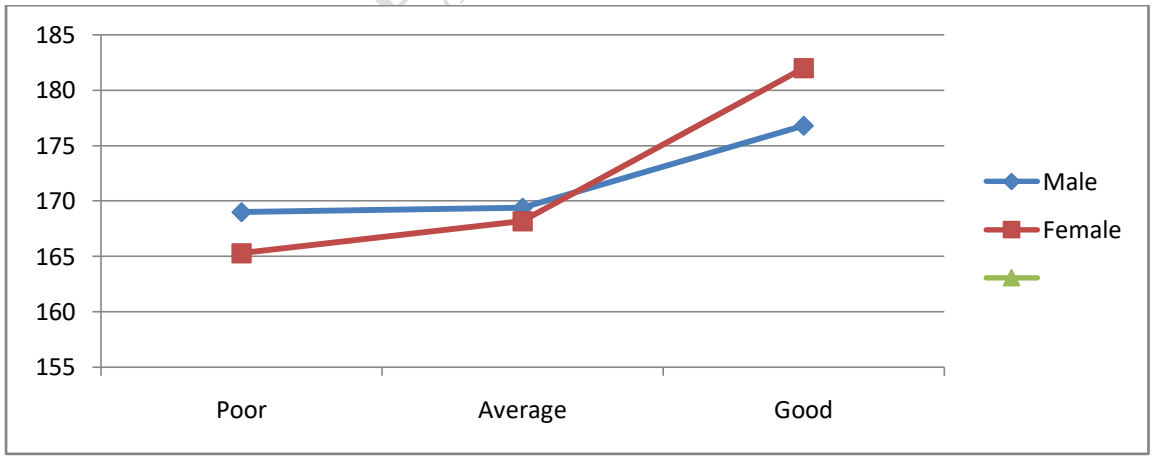

Figure 2: Mean scores of Jaunsari students on Cognitive styles belonging to poor average and good home environment

There are four dimensions in the cognitive styles inventory; Locus of control, Systematic and Intuitive cognitive styles, Adaptive and Innovative cognitive styles and field dependent and field-independent cognitive styles. The cognitive styles of the Jaunsari students were observed in each dimension of cognitive styles that is tested with the help of following sub-hypotheses.

H01.1There is no significant difference in Locus of control among male and female Jaunsari tribal students in relation to their home environment.

Table 4: Locus of control and home environment of male and female Jaunsari tribal students

Source	Sum of Squares	df	Mean Square	F	Sig.(0.05)
Gender	.089	1	.089	.002	.967
Home environment	337.732	2	168.866	3.328	.039
Gender * Home environment	208.342	2	104.171	2.053	.132

The data presented in the table indicates that there is no statistically significant difference in the locus of control between male and female Jaunsari students at the 0.05 level of significance ($p = 0.967$, which is greater than 0.05). In contrast, the influence of the home environment was found to be significant at the 0.05 level ($p = 0.039$, which is less than 0.05). Additionally, the interaction effect between gender and home environment was determined to be insignificant. To further investigate the impact of the home environment, the researcher conducted a post hoc test, with the findings detailed in Table 5.

Table 5: post-hoc analysis of Locus of control and home environment

Home Environment	Home Environment	Mean Difference	Std. Error	Sig.(0.05)
Poor Home	Average Home environment	-.8881	1.35	.791

environment	Good Home Environment	-5.0809	1.58	.005
Average Home	Poor Home environment	.8881	1.35	.791
environment	Good Home Environment	-4.1928	1.46	.014
Good Home	Poor Home environment	5.0809	1.58	.005
Environment	Average Home environment	4.1928	1.46	.014

The table presented indicates that students from favourable home environments exhibit a significant difference in the locus of control dimension of cognitive styles when compared to their counterparts from poor and average home environments, with a significance level of 0.05. However, no significant difference was observed in the locus of control between students from poor and average home environments.

H01.2 There is no significant difference in systematic and intuitive cognitive styles among male and female Jaunsari tribal students in relation to their home environment.

Table 6: Two-way ANOVA of systematic and intuitive cognitive styles and home environment

Source	Sum of Squares	df	Mean Square	F	Sig. (0.05)
Gender	1.139	1	1.139	.021	.885
Home environment	524.004	2	262.002	4.789	.010
Gender * Home environment	135.717	2	67.858	1.240	.292

The data presented in the preceding table indicates that there is no notable difference in the systematic and intuitive cognitive styles between male and female Jaunsari tribal students, as evidenced by an F value of .021 (p=.88, which is greater than 0.05). Conversely, the influence of the home environment was determined to be significant, with a calculated F value of 4.78 (p=0.01, which is less than 0.05). The interaction effect between gender and home environment on the cognitive styles of Jaunsari tribal students was found to be

insignificant, as indicated by an F value of .292, which does not reach significance at the 0.05 level. The home environment was classified into three categories: poor, average, and good. To ascertain which type of home environment exerts a significant effect on cognitive style, the researcher proceeded with a post-hoc analysis. The results of this analysis are illustrated in Table 7.

Table 7: Post-hoc analysis of Systematic and Intuitive Cognitive styles and home environment

Home Environment	Home Environment	Mean Difference	Std. Error	Sig.(0.05)
Poor Home	Average Home environment	-.2960	1.41	.976
environment	Good Home Environment	-5.3418	1.64	.004
Average Home	Poor Home environment	.2960	1.41	.976
environment	Good Home Environment	-5.0458	1.52	.003
Good Home	Poor Home environment	5.3418	1.64	.004
Environment	Average Home environment	5.0458	1.52	.003

The above table reveals that there is a significant difference in systematic and intuitive cognitive styles of students who belong to poor home environment and good home environment. The students who belong to good home environment perform better that the students who belong to poor and average home environment (p value .004 and .003 respectively). Though there was no significant difference between the students who belong to poor home environment and average home environment as the p value was .74 (.74>0.05). Students belongs average and good home environment differ significantly at the 0.05 level of significance.

H01.3 There is no significant difference in adaptive and innovative cognitive styles among male and female Jaunsari tribal students in relation to their home environment.

Table 8: Two-way ANOVA of adaptive and innovative cognitive styles and home environment

Source	Sum of Squares	df	Mean Square	F	Sig.(0.05)

Gender	4.147	1	4.147	.177	.675
Home environment	378.535	2	189.267	8.064	.000
Gender * Home environment	25.326	2	12.663	.539	.584

Table 8 indicates that there is no statistically significant difference in adaptive and innovative cognitive styles between male and female Jaunsari students, as evidenced by an F value of .177 (p = .675, which is greater than 0.05). However, the influence of home environment—categorized as poor, average, and good—on adaptive and innovative cognitive styles was found to be significant at the 0.05 level, with an F value of 8.064. Furthermore, the interaction between gender and home environment regarding adaptive and innovative cognitive styles was not significant at the 0.05 level (p = .584, which exceeds 0.05). The impact of home environment on the adaptive and innovative cognitive styles of Jaunsari Tribal students is further illustrated in Table 9.

Table 9: Post-hoc analysis of adaptive and innovative Cognitive styles and home environment

Home Environment	**Home Environment**	**Mean Difference**	**Std. Error**	**Sig.(0.05)**
Poor Home environment	Average Home environment	-1.2801	.924	.352
	Good Home Environment	-4.5954	1.078	.000
Average Home environment	Poor Home environment	1.2801	.924	.352
	Good Home Environment	-3.3154	.998	.003
Good Home Environment	Poor Home environment	4.5954	1.078	.000
	Average Home environment	3.3154	.998	.003

According to the table, there is no significant difference in adaptive and innovative cognitive styles between students from poor and average home environments. In contrast, students from a supportive home environment achieved higher scores than those in the other two categories.

H01.4 There is no significant difference in field dependent and field independent cognitive styles among male and female Jaunsari tribal students in relation to their home environment.

Table 10: Two-way ANOVA of field dependent and field independent cognitive styles and home environment.

Source	Sum of Squares	df	Mean Square	F	Sig.(0.05)
Gender	.000	1	.000	.000	.996
Home Environment	12.845	2	6.423	.426	.654
Gender * Home environment	113.101	2	56.550	3.749	.026

The data presented in the table indicates that there is no statistically significant difference in the cognitive styles of field dependence and field independence between male and female Jaunsari students at the 0.05 significance level (p = .99, which is greater than 0.05). Similarly, the influence of the home environment on this aspect of cognitive styles was also determined to be insignificant at the 0.05 level (p = .65, which exceeds 0.05). However, the interaction effect between gender and home environment was found to be significant, as evidenced by a calculated F value of 3.749 (p = .026, which is less than 0.05). This interaction effect is illustrated in Figure 3.

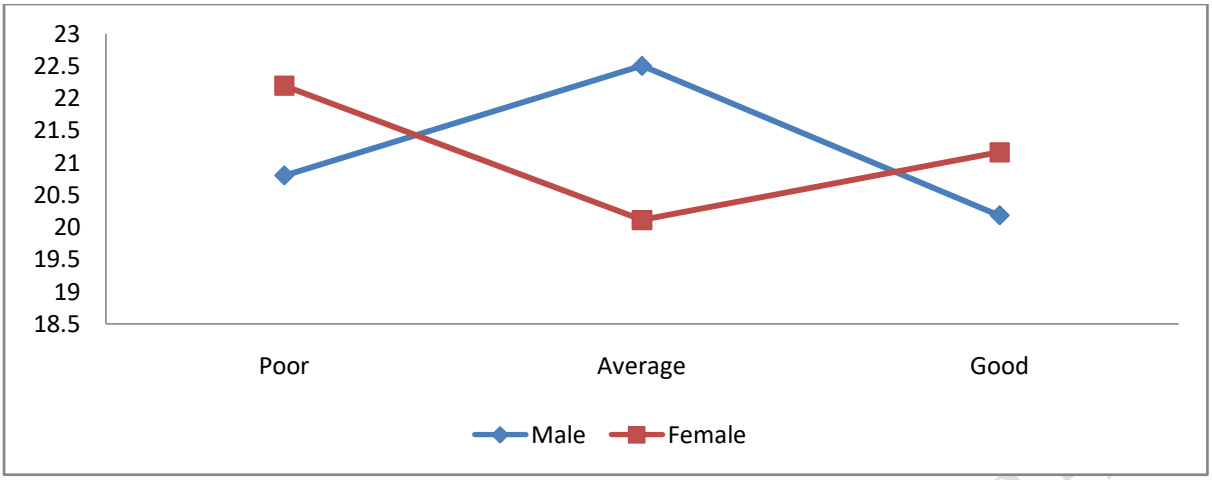

Figure 3: The interaction effect of gender and home environment on Field Dependent and independent cognitive style

The graph presented above clearly illustrates that the home environment influences the cognitive styles—both field-dependent and field-independent—of male and female Jaunsari students in distinct ways. It appears that girls may exhibit greater sensitivity and a tendency towards field independence compared to boys, despite experiencing a less favourable home environment. Conversely, boys tend to score lower in this dimension of cognitive styles than girls, even when they are situated in a more supportive home environment.

Discussion

India is well known for its diversity of religions, languages, culture, customs and geographical locations. Tribes represent a marginalized group residing in remote and isolated geographical areas. These individuals rely on forests and agriculture for their livelihoods. To navigate the challenges of life, they employ various cognitive styles. In the current study, the researcher aimed to identify the cognitive styles of Jaunsari tribal students in relation to their home environment. It was found that the home environment significantly influences cognitive styles. Students from favourable home environments achieved higher scores on the cognitive style inventory compared to those from poor or average home environments. Elevated scores

on the cognitive styles inventory indicate that these students possess an internal locus of control and exhibit systematic, innovative, and field-independent approaches to addressing various life situations.

Number of studies supported these findings and emphasized the crucial role of home environment on cognitive development of the learner. Home environments providing cognitive stimulation can help children overcome adverse life experiences and cognitive development challenges in extreme poverty and frequent illnesses (Nampijja, Kizindo, Apule, Lule, Muhangi, Titman, Elliott, Alcock, & Lewis, 2018).A research study by Wang, J., Doyle, J., Hancock, P., Mak, C., and Liu, S. (2021) aimed to explore how the quality of the indoor environment influences the cognitive abilities of participants.

The findings indicated that five specific factors—indoor air quality, thermal conditions, lighting, noise, and non-light visual elements—impact cognitive functions in varying ways. Overall, the findings imply that although poor indoor environmental quality (IEQ) is frequently associated with decreased cognitive function, the impact of each IEQ factor on various cognitive processes varies significantly. Seidler and Ritchie (2018) highlighted the significance of the home environment in influencing learners' cognitive development. The situation of these weaker sections of society can be improved. Tribal students' academic achievement is significantly influence by their personality and emotional intelligence, which can be improved through positive reinforcement and empathy (John & Singh 2014).

Tribal students encounter a range of challenges that often surpass those faced by their mainstream counterparts. This research indicates that enhancing opportunities related to livelihood, education, health, and employment can significantly improve their home environments. A more supportive home environment is crucial for the cognitive development

of marginalized students, enabling them to thrive academically and socially. As individuals, they possess the same rights as anyone else to develop their abilities and reach their full potential. The current study emphasizes the importance of curriculum and pedagogy in effectively identifying diverse cognitive styles among students. By providing improved opportunities for marginalized communities, we can cultivate a valuable human resource that contributes positively to the nation. Empowering these individuals not only benefits them personally but also enriches society as a whole, fostering a more inclusive and equitable environment for all.

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