

4. Attitudinal Shifts: Exploring Pupil Teachers' Views on Integrating Indian Knowledge System in Education

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Abstract

The New Education Policy (NEP) 2020, acknowledges the profound heritage of ancient Indian thought and recognizes the unbroken tradition of knowledge transmission and the unique perspective (Bhāratīya Drishti) embedded in our ancient systems. The Indian Knowledge Systems, comprising Jnan, Vignan, and Jeevan Darshan, have evolved through rigorous analysis and practical application, influencing diverse domains. This impactful tradition, transcending languages and transmitted through various mediums, forms the backdrop for addressing current challenges and shaping India's future aspirations. This study to examine the attitude of pupil teachers towards this amalgamation of Indian Knowledge System in education as given by NEP 2020 focuses on variations in attitude across gender, academic stream, and teacher education program. The sample comprises of 185 pupil teachers (B. Ed. and ITEP students) of HN BGU, Srinagar Garhwal and its affiliated colleges in Pauri Garhwal district of Uttarakhand. A self-made questionnaire was developed and Convenience sampling method was used to collect the data. The study's outcomes are anticipated to contribute significantly to the ongoing discourse on educational reform, fostering a deeper understanding of how traditional wisdom can enrich and complement the current educational landscape, ultimately shaping the trajectory of future generations of learners.

Keywords: Indian Knowledge System and Education, New Education Policy 2020, Integration of IKS, Attitude, Pupil Teachers.

Introduction

"Indian Knowledge Systems (IKS) refers to the comprehensive and diverse knowledge systems developed and nurtured in the Indian subcontinent over centuries. These systems encompass traditional knowledge in various domains such as science, technology, medicine, arts, and social organization, deeply rooted in India's cultural and philosophical heritage."

(Indian National Science Academy, 2018). IKS has evolved through centuries, Notable contributions include the understanding of planetary movements, the heliocentric model, the shape and diameter of the Earth, the nature of plants and herbs, surgical skills, the discovery of zero and the decimal system, approximation algorithms for the computation of Pi, Panini's universal grammar, and advanced methods in steel-making, governance, and taxation.

The IKS is the systematic transfer of ancient and contemporary knowledge from one generation to another. It covers ancient knowledge from various domains to address current and future challenges. This knowledge exists in both literary and non-literary works. Literary resources cover Vedic and allied literature (Sanatana Dharma mainly in the Sanskrit Language), resources on other dharmic traditions (Buddhism and Jainism), and, knowledge that exists in Indian languages and dialects. Non-literary resources are present in oral traditions available across the country (Chandel & Prashar, 2022). India has a long-standing tradition of knowledge and education, dating back to ancient universities like Nalanda and Takshashila. These institutions were renowned for their diverse curriculum, attracting scholars from across the globe. The colonial era, however, disrupted this indigenous education system, replacing it with a Western model that often disregarded native knowledge (Gaur, 2024). Knowledge was seen as the true power and wealth of India, and today, this knowledge base is crucial for "knowledge diplomacy," which will shape future international relations. India's treasure of knowledge has enriched its civilization for millennia, providing a powerful foundation for the country's standing in the global arena.

The NEP's emphasis on multidisciplinary education, flexibility, and experiential learning aligns with the holistic principles of traditional knowledge systems. It serves as a clarion call to not only recognize the achievements and challenges of India's intellectual heritage but also to integrate these timeless insights into the education system, forging a path that honours the past while navigating the complexities of the present and future. Despite its profound significance, Indian knowledge systems were side-lined for centuries, especially during colonial rule, in favour of Western scientific and educational models. The inclusion of Indian Knowledge Systems in education is vital for the nation's holistic development. This will not only rejuvenate the education system but also promote in the endorsement and preservation of Indian tradition and culture. This way, the coming generation of students will be nurtured with a deep understanding of their cultural roots, who can then apply this knowledge to effectively address modern challenges, thereby leading our nation towards progress and development. Ancient Indian practices, such as Ayurveda and yoga, offer valuable insights into holistic health and well-being, while traditional agricultural knowledge promotes sustainability and environmental stewardship. IKS also emphasizes a deep connection with nature, ethical governance, and sustainable living, making it highly relevant in today's world, which faces challenges such as climate change, mental health crises, and food security.

The integration of Indian Knowledge Systems into modern education is crucial at this juncture for both preserving India's rich heritage and providing meaningful solutions to contemporary global issues. IKS offers a holistic approach to learning, blending science with philosophy and ethics, and grounding students in both global knowledge and local wisdom. In this era of globalisation, it is essential for Indian students to develop a deep understanding of their cultural roots while gaining the skills and knowledge needed to thrive globally. The inclusion of IKS in education enriches the learning experience, promoting sustainability, ethical awareness, and a profound connection to one's heritage, preparing future generations to lead with wisdom and integrity in an ever-changing world. "Integration of IKS into the mainstream education system can have numerous benefits, including fostering a better understanding of India's rich cultural heritage and providing innovative solutions to contemporary challenges faced by the country. The main objective of integrating IKS into the education system is to ensure that India's ancient knowledge systems, such as Ayurveda, Yoga, and traditional arts, are preserved and promoted for future generations. By revitalizing the Indian education system through the inclusion of IKS, students can develop a deeper appreciation for their nation's unique history and cultural identity" (Acharya, 2024).

Methodology

A quantitative approach has been used in the present study. The data is acquired from a total of 185 pupil teachers enrolled in either the 2-year B. Ed. or 4-year ITEP course in H.N.B. Garhwal University or from its affiliated colleges. A self-made questionnaire namely AIKSE was developed to study the Pupil Teachers' attitude towards integration of the Indian Knowledge System in Education. It consists of 55 items statements covering various aspects of IKS integration, such as its relevance in modern education, potential benefits for students, challenges in implementation, and personal beliefs regarding the cultural significance of IKS. The responses for each item have been collected on 5 point Likert scale with 1 being strongly disagree to 5 being strongly agree. t-Test has been used to compare the mean scores obtained from the sub-populations. To know the level of attitude of pupil teachers, they were categorized into the following three levels based on the scores they obtained.

Table no. 1. Levels of Attitude of Pupil Teachers for IKS in Education

Scores	55 - 192	193 - 238	239 - 275
Level of Attitude	Low	Moderate	High

RESULTS-

Table no. 2. Levels of Attitude of Pupil Teachers towards the Integration of IKS in Education

Attitude	Frequency	Percent
Low	29	15.68
Moderate	120	64.86
High	36	19.46
Total	185	100

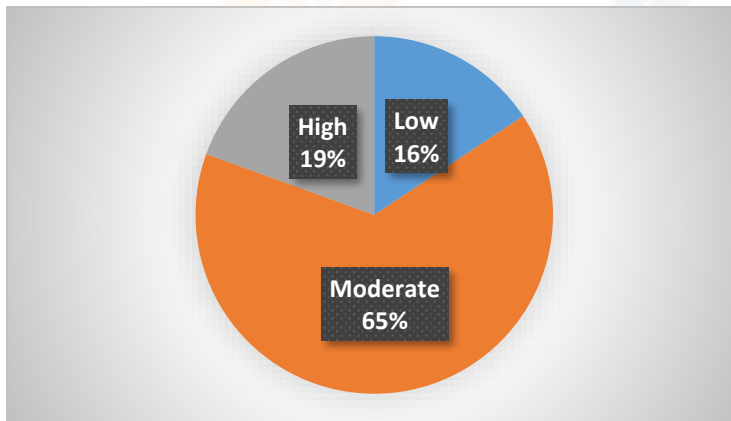


Fig. no. 2.1 Graphical representation of levels of attitude of the pupil teachers towards the integration of IKS in education

Table no. 2. Shows the attitude-wise distribution of the sample of pupil teachers studied in this research. The pupil teachers falling in the low attitude scoring range account for 15.68% of the total sample, about 64.86% of the total pupil teachers studied have a moderate attitude and almost 19.46% of the total sample of Pupil teachers hold high attitude towards the integration of Indian Knowledge System in Education.

Table no. 3: - Attitude of Pupil Teachers towards IKS in Education based on Gender

Stream	N	Mean	Std. Deviation	t	Sig.
Female	122	216.60	22.216	0.704	NS
Male	63	214.02	26.252		

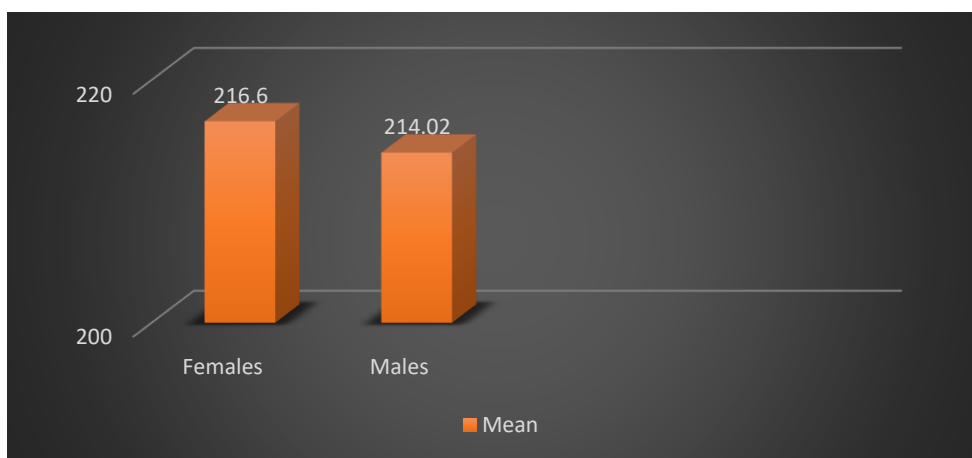


Fig. no. 3.1 Graphical representation of mean of pupil teacher's attitude towards IKS in Education based on gender

As shown in Table no. 3, in which the Mean, standard deviation, degree of freedom (df), and t-value are quoted. It is evident from the table that the mean scores of female pupil teachers and male pupil teachers are 216.60 and 214.02 respectively. The computed t-value of 0.704 is lower than the critical t-value at the 0.05 significance level for a degree of freedom of 183. Consequently, the null hypothesis is accepted, indicating no significant difference in the attitudes of pupil teachers toward integrating the Indian Knowledge System in education based on gender. This suggests that gender is not a determining factor in shaping attitudes toward incorporating Indian Knowledge Systems into educational practices.

Table no. 4 Attitude of Pupil Teachers towards IKS in Education based on Stream

Stream	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Arts/Humanities	83	215.18	21.406	0.279	NS
Science	102	216.16	25.389		

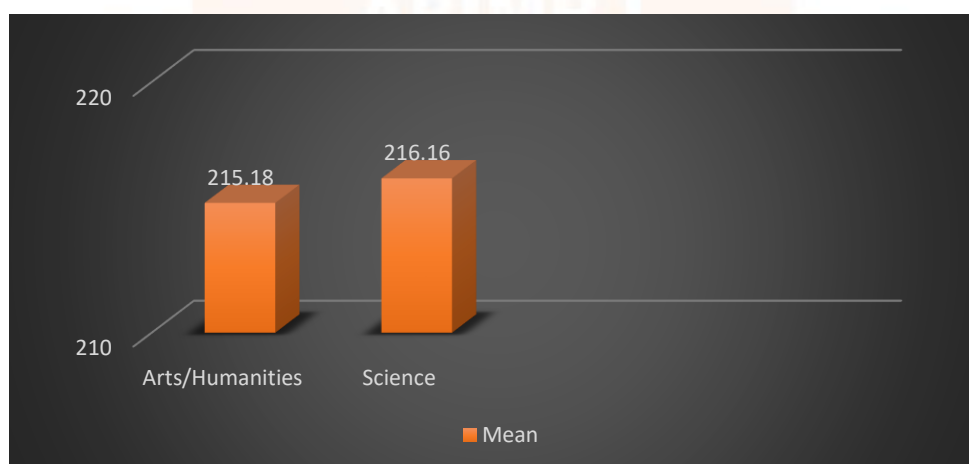


Fig. no. 4.1 Graphical representation of mean of Arts/Humanities and Science stream pupil teacher's attitude towards IKS

As shown in table no. 4 in which the Mean, standard deviation, Degree of freedom (df), and t-value are quoted. It is evident from table no. 4 that, the mean score of arts/ humanities stream pupil teachers and science stream pupil teachers are 215.18 and 216.16 respectively. The computed t-value of 0.279 falls below the critical t-value at the 0.05 significance level for 183 degrees of freedom. Consequently, the null hypothesis is accepted, indicating that there is no statistically significant difference in attitudes towards the integration of Indian Knowledge Systems in education between pupil teachers from the Arts/Humanities and Science streams.

Table no. 5 Attitude of Pupil Teachers towards IKS in Education based on Course

Course	N	Mean	Std. Deviation	t	Sig. (2-tailed)
ITEP	56	215.52	19.895	.076	NS
B. Ed.	129	215.81	25.148		

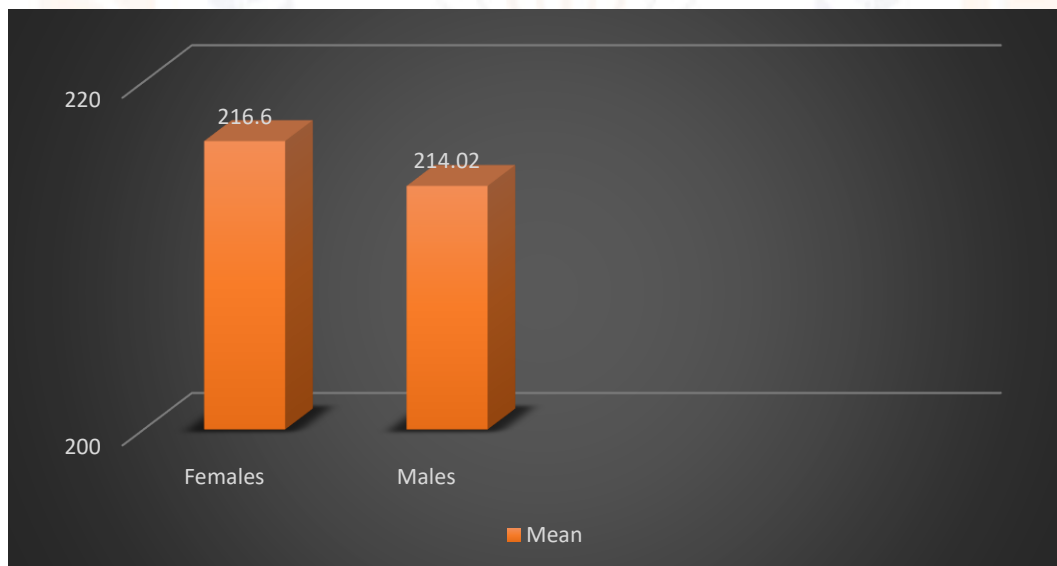


Fig. no. 5.1 Graphical representation of mean of ITEP and B. Ed. course pupil teacher's attitude towards IKS

As shown in table no. 5 in which the Mean, standard deviation, Degree of freedom (Df), and t-value are quoted. It is evident from table no. 5 that, the mean score of ITEP course pupil teachers and B. Ed. course pupil teachers are 215.52 and 215.81 respectively. The computed t-value of 0.076 falls below the critical t-value at the 0.05 level of significance with a degree of freedom of 183. As a result, the null hypothesis is accepted, indicating that there is no

statistically significant difference in attitudes toward the integration of Indian Knowledge Systems in education between pupil teachers enrolled in the ITEP course and those in the B.Ed. course.

Discussions and Conclusion

The findings of the study on the attitude of pupil teachers towards the integration of the Indian Knowledge System (IKS) in education present an insightful distribution across three categories: low, moderate, and high attitudes. A significant majority (64.86%) of the pupil teachers exhibit a *moderate attitude* toward integrating IKS in education. This suggests that while many pupil teachers recognize the relevance of IKS, their acceptance is balanced with reservations. It reflects an openness to the idea but highlights the need for targeted efforts to deepen their understanding and conviction about the benefits of integrating IKS into modern education. On the other hand, about 19.46% of the sample displays a *high attitude* toward the integration of IKS. This group likely perceives IKS as a valuable resource for enriching education, fostering cultural pride, and addressing contemporary educational challenges. However, a noteworthy 15.68% of pupil teachers fall in the *low attitude* category. This minority likely holds skepticism or indifference toward IKS. The findings suggest that while a majority of pupil teachers are receptive to the idea of integrating IKS into education, there is a need for sustained efforts to elevate their attitudes, address concerns, and foster a deeper appreciation for IKS as a critical component of India's educational landscape. By doing so, the integration of IKS can be more effectively realized, aligning with national educational goals and fostering holistic learning.

The study of attitude on the basis of gender found no significant difference in attitudes towards the integration of Indian Knowledge Systems (IKS) between male and female pupil teachers. Both genders exhibited relatively similar attitudes, with mean scores of 216.60 for females and 214.02 for males, depicting that gender does not play a significant role in shaping these attitudes. Both male and female future teachers seem to recognize the value of IKS and show a similar level of openness to its integration, which may reflect a general acceptance of traditional knowledge systems among younger generations regardless of gender.

The analysis in case of streams showed that there is no significant difference in attitudes between pupil teachers from Arts/Humanities and Science streams. Both groups hold similar views towards the integration of IKS, with mean scores of 215.18 and 216.16, respectively. This uniformity in perspective across streams may reflect a shared understanding of the value IKS can bring to diverse fields of study, highlighting that the appreciation of traditional Indian knowledge transcends disciplinary boundaries. It suggests that IKS is viewed as relevant not

only to cultural and social education but also as a meaningful complement to scientific and technical disciplines, where indigenous knowledge can offer unique perspectives.

The comparison of attitude between students enrolled in the B.Ed. program and those in the ITEP program also revealed no significant difference in their attitudes towards IKS. Both groups reported similar mean scores, indicating that the type of teacher education program does not significantly influence attitudes towards IKS. This consistent perspective across courses might reflect a shared educational ethos that values cultural heritage and traditional knowledge, irrespective of the program structure. The similarity in attitudes may also suggest that current teacher education curricula or institutional cultures could play a role in fostering a broad acceptance of IKS among pupil teachers.

Therefore, this study concludes that attitudes towards the integration of Indian Knowledge Systems in education are not significantly influenced by demographic factors such as gender, academic stream, or teacher education program. The absence of significant differences across these variables highlights a shared inclination among future educators to embrace IKS, suggesting a broad resonance of traditional knowledge within the teaching community. This openness across diverse backgrounds implies that future teachers recognize the potential of IKS to enrich the educational experience and may be prepared to integrate it into their teaching practices, regardless of personal demographic characteristics.

These findings underscore the potential for IKS integration to become a unifying theme within teacher education, providing a culturally relevant and holistic approach to knowledge that could enhance students' learning experiences. By integrating IKS into education, policymakers and educators can tap into a widespread willingness among future teachers, fostering an inclusive curriculum that values both global and indigenous perspectives. Further research could explore more nuanced factors that might influence attitudes, such as cultural background or regional context, to deepen understanding of how future educators perceive the role of IKS in contemporary education.

Recommendations and Suggestions

First, longitudinal studies are recommended to track how attitudes toward IKS may evolve over time, particularly as the National Education Policy (NEP) 2020 continues to promote IKS integration. This would provide valuable insights into the sustained impact of policy changes on educator perspectives.

Expanding the demographic scope of the research is also essential, as studying pupil teachers from various regions across India could reveal how geographical and cultural factors influence attitudes toward IKS. Such a broader approach would allow for a more comprehensive understanding of regional variations and commonalities.

Additionally, future studies could examine the role of professional development programs focused on IKS and their influence on teacher attitudes and effectiveness in delivering IKS content. Understanding the impact of ongoing professional training could provide insights into how structured support fosters positive attitudes and enhances the integration of IKS in educational settings. These areas of research would contribute to developing targeted strategies for effective IKS incorporation, benefiting both teachers and students alike.

References-

Acharya, S. (2024). *Integration of Indian Knowledge System into Higher Education through NEP 2020*. International Journal of Research Culture Society, 8(9), 55-58 DOIs: 10.2017/IJRCS/202409012

Chandel, N. & Prashar, K. K. (2024). *Indian Knowledge System and NEP: A Brief Analysis*. Journal of Emerging Technologies and Innovative Research (JETIR), 11(1), 260-263

Gaur, S. (2024). *Integrating Indian Knowledge Systems into Modern Education: An Analysis of the National Education Policy (NEP) 2020*. EPRA International Journal of Multidisciplinary Research (IJMR), 10(6), 519-521

Indian National Science Academy, 2018 Retrieved from - <https://iksindia.org/>

Ministry of Education, Government of India. (2020). National Education Policy 2020. Retrieved from https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf