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THE SIGNIFICANCE OF INDIAN KNOWLEDGE SYSTEMS IN SHAPING UNDERGRADUATE EDUCATION:

A SOUTH MUMBAI PERSPECTIVE UNDER THE NEW EDUCATION POLICY 2020

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Abstract:
This research paper explores the significance of integrating Indian Knowledge Systems (IKS) into undergraduate curriculum. The study aims to understand the relevance and benefits of IKS education, focusing on its impact on cultural preservation, critical thinking, and holistic development. Through a mixed-method approach, the research evaluates student perceptions, educational outcomes, and the broader societal implications of introducing IKS as a subject. The findings suggest that IKS education not only enriches students' understanding of their heritage but also equips them with unique perspectives and skills applicable in a globalized world.

Keywords:
Indian Knowledge Systems, Undergraduate Education, Curriculum Integration, Student Attitudes, Educational Challenges, National Education Policy 2020

1. Introduction

The Indian Knowledge Systems (IKS) represent a vast repository of indigenous knowledge that spans diverse domains such as philosophy, medicine, mathematics, art, architecture, environmental practices, and spirituality. Rooted in ancient texts and practices, IKS offers holistic approaches to understanding life, nature, and the cosmos. Despite its richness and relevance, IKS has often been overlooked in modern education, particularly at the undergraduate level, where Western educational paradigms dominate curricula.

In recent years, there has been a growing recognition of the need to revive and integrate indigenous knowledge systems within educational frameworks globally. This shift is driven by the realization that traditional knowledge can provide valuable insights into contemporary challenges, including sustainability, ethics, and cultural diversity. For India, integrating IKS into higher education is not only a matter of preserving cultural heritage but also of enriching students' intellectual and personal development.

The inclusion of IKS in undergraduate education offers an opportunity to foster a more well-rounded and culturally aware generation. It can broaden students' perspectives, enhance critical thinking, and instill values that are deeply rooted in India's ancient wisdom. However, the integration of IKS into modern curricula is not without its challenges. Issues such as curriculum development, faculty training, and the perceived relevance of IKS to modern careers need to be carefully addressed.

This research paper aims to explore the relevance of learning Indian Knowledge Systems as a subject among undergraduate students. By examining student perceptions, educational outcomes, and the broader implications of IKS education, this study seeks to understand how IKS can be effectively integrated into the higher education system. Through a combination of quantitative and qualitative research methods, the paper will provide insights into the potential benefits, challenges, and strategies for incorporating IKS into undergraduate curricula.

1.1. Background

Historically, IKS played a significant role in shaping Indian society and contributing to global knowledge. From the ancient universities of Nalanda and Takshashila to the contributions of Indian scholars in fields like mathematics, medicine, and astronomy, the intellectual heritage of India has had a profound impact both within the country and beyond. However, during the colonial period, education systems introduced by the British often sidelined this indigenous knowledge in favor of Western frameworks. This led to a gradual erosion of IKS from mainstream education, resulting in a disconnect between students and their cultural heritage.

The National Education Policy (NEP) 2020 marks a significant shift in India's approach to education by emphasizing the importance of Indian Knowledge Systems. The policy explicitly advocates for the inclusion of IKS in the curriculum at all levels of education, from school to university. NEP 2020 encourages the promotion of traditional arts, culture, and knowledge, highlighting the need to study IKS alongside modern sciences and humanities. It also calls for the development of IKS-related courses and the translation of classical Indian texts into regional languages, making this knowledge accessible to a wider audience. Furthermore, the policy aims to foster research in Indian languages and knowledge traditions, thereby creating a robust framework for the revival and integration of IKS in contemporary education.

1.2. Purpose of the Study

This research seeks to evaluate the relevance of teaching IKS as a subject in undergraduate programs. It examines the potential benefits, challenges, and the impact of such education on students' intellectual and personal development.

1.3 Objective of the study

1. To understand the perception of undergraduate students on IKS subject.
2. To find out the challenges and constraints students are facing in studying IKS
3. To understand the importance , various domain and befits of learning IKS amongst students.

1.4 Limitation of the study

The study's data is based on responses from only 168 students, which may not fully represent the broader student population. Additionally, the study is limited to colleges in South Mumbai, potentially restricting the generalizability of the findings to other regions or educational contexts.

2.1. Indian Knowledge Systems: An Overview

IKS includes a diverse range of disciplines such as Ayurveda, Vedic mathematics, classical arts, and ancient Indian philosophy. These systems emphasize holistic learning, integrating mind, body, and spirit, and offer alternative perspectives on modern challenges.

Indian Knowledge Systems (IKS) encompass a vast array of traditional knowledge and practices that have been developed and transmitted over centuries in India. These systems encompass various fields such as:

Philosophy: Vedanta, Samkhya, Nyaya, Vaisheshika, Mimamsa, and Jain philosophy, which delve into metaphysical, epistemological, and ethical questions.**Religion:** Hinduism, Buddhism, Jainism, Sikhism, and Islam, each with its unique beliefs, practices, and philosophical foundations.**Medicine:** Ayurveda, Siddha, Unani, and Ayurvedic medicine, which emphasize holistic health and natural remedies.**Mathematics and Astronomy:** Ancient Indian contributions to mathematics and astronomy, including the concept of zero, the decimal system, and astronomical observations.**Architecture and Engineering:** Traditional Indian architecture and engineering practices, as exemplified in ancient monuments like the Taj Mahal and temples.**Agriculture and Horticulture:** Traditional farming techniques, agricultural practices, and botanical knowledge.**Arts and Literature:** Classical Indian literature, poetry, music, dance, and visual arts.**Yoga and Meditation:** Practices for physical and mental well-being, including yoga, meditation, and pranayama.

IKS reflect a rich cultural heritage and offer insights into various aspects of human life. While some aspects of IKS have been integrated into modern disciplines, many remain under-explored and hold potential for further research and application.

2.3. Benefits of IKS in Modern Education

Research suggests that studying IKS can enhance critical thinking, cultural appreciation, and ethical reasoning. It provides students with a broader worldview, equipping them to navigate a multicultural and interconnected world.

3. Research Methodology

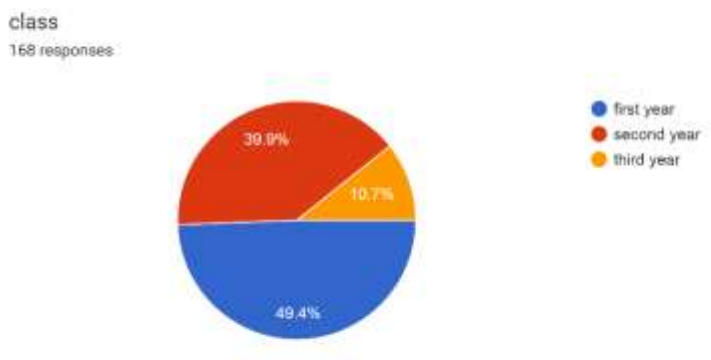
Secondary information was collected from various books, journals, published and unpublished reports, websites and news articles. Primary data was collected using standardised questionnaire. Population under study was young generation (College students) that belongs to age from 18 to 24. Convenient quota sampling method was used for collecting primary data. Sample size of the study was 150 as the population under study was more than 1,00,000.

4. Data analysis and Interpretation

1. Age : As stated in the objectives of the study, the data collected shows that the survey pertains to the young population between the age of 17-24. All participants in the research study (100%) were in that category.

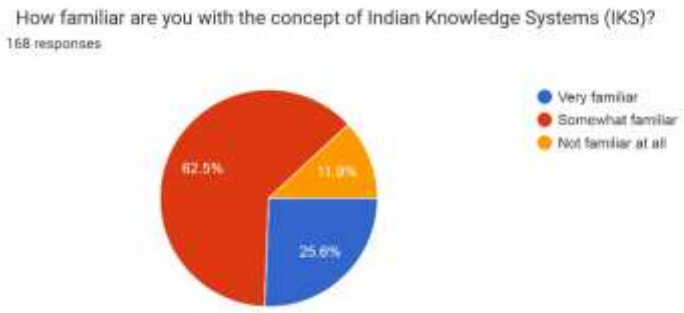
2**. Gender:** Among the results collected of the study, 59.5% were Female of the remaining 39.9% belonged to the male category.

3**. Class:**



As stated in the objective, the data for this study primarily focuses on first-year and second-year undergraduate students who are currently studying or have studied Indian Knowledge Systems (IKS) as part of their course. This demographic was chosen to understand the initial impact and perceptions of IKS education on students early in their academic journey.

4. Familiarity with IKS subject:

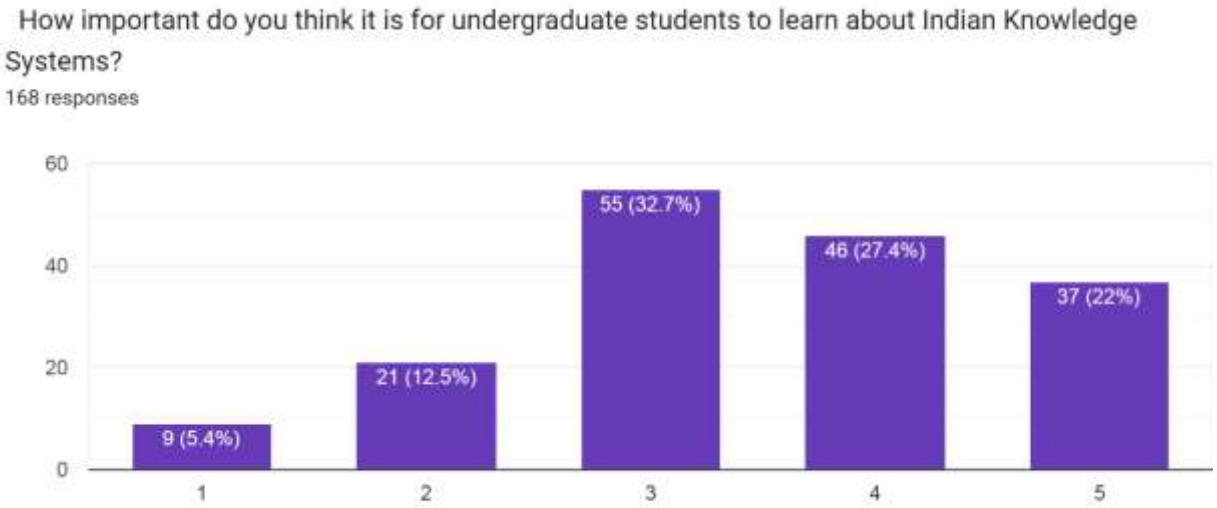


The majority of students surveyed expressed familiarity with Indian Knowledge Systems (IKS). Only 11.9% reported being unfamiliar with the concept.4.1. Student Perceptions of IKS

5. **Previously studied any aspect of Indian Knowledge Systems:** A significant portion of students (46.4%) have prior exposure to Indian Knowledge Systems (IKS) through their education. However, nearly 40% of students are not familiar with IKS, indicating a need for increased awareness and integration of IKS into the curriculum. A smaller group (14.3%) expressed uncertainty, suggesting a need for further clarification and information about IKS.

6. **Importance of learning IKS**

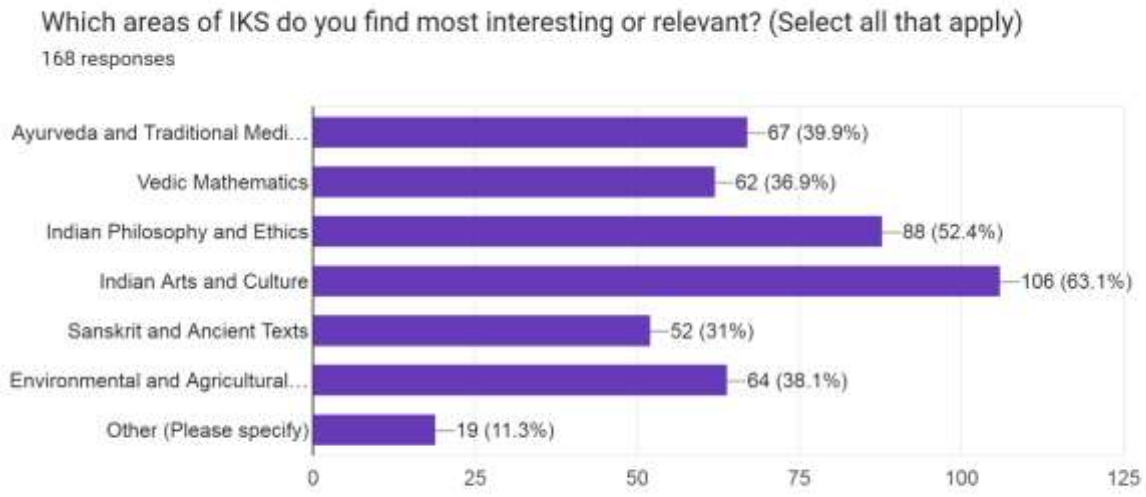
Very Important: 22% of students considered IKS to be very important, demonstrating strong enthusiasm.



Important: Another 27.4% viewed IKS as important, indicating a significant level of interest.

Somewhat Important: 32.3% expressed a positive attitude, suggesting that while IKS might not be a top priority, it's still considered valuable.

These findings highlight the potential for IKS to be integrated effectively into the curriculum and contribute to a more holistic educational experience.



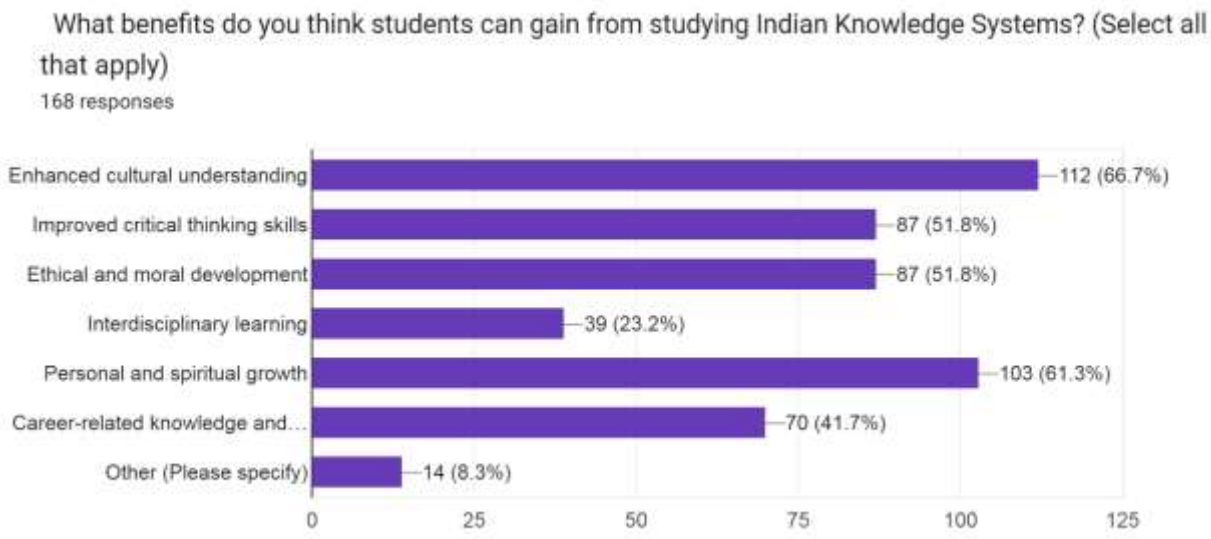
Diverse Interests: Students expressed interest in a wide range of IKS areas, indicating a broad appeal for traditional Indian knowledge.

Philosophy and Culture: Indian Philosophy and Ethics, followed by Indian Arts and Culture, were the most popular areas, suggesting a strong interest in the humanities and cultural heritage.

Health and Science: Ayurveda and Traditional Medicine, along with Vedic Mathematics, were also areas of significant interest, highlighting the practical applications of IKS.

Environmental Focus: A considerable number of students expressed interest in Environmental and Agricultural Practices, reflecting a growing awareness of sustainability and traditional wisdom in these areas.

8**. Benefits Students gain from studying IKS**



Enhanced Cultural Understanding (66.7%): A significant majority of students believe that studying IKS can greatly enhance their understanding of cultural heritage. This high percentage indicates a strong recognition of the value of IKS in fostering a deeper appreciation and connection to India's rich cultural history.

Personal and Spiritual Growth (61.3%): Many students see IKS as a means to personal and spiritual growth. This suggests that IKS is viewed not just as an academic subject but also as a source of personal enrichment and self-discovery.

Improved Critical Thinking Skills (51.8%): The data shows that a substantial portion of students believes that IKS can enhance their critical thinking skills. This reflects the perception that IKS involves complex, thoughtful engagement with philosophical and ethical concepts, which can sharpen analytical abilities.

Ethical and Moral Development (51.8%): Alongside critical thinking, students also value IKS for its role in ethical and moral development. This underscores the importance of IKS in shaping students' values and principles.

Career-Related Knowledge and Skills (41.7%): A notable percentage of students perceive IKS as beneficial for career-related knowledge and skills. This indicates an awareness of how traditional knowledge can have practical applications and relevance in various professional fields.

Interdisciplinary Learning (23.2%): Although less emphasized, some students appreciate IKS for its potential to promote interdisciplinary learning. This suggests a recognition of IKS's ability to integrate with and enrich other areas of study.

9. **Do you think learning about IKS can provide a unique perspective compared to other subjects?**

The majority of students believe that learning about Indian Knowledge Systems (IKS) offers a unique perspective, with 54.2% agreeing or strongly agreeing. However, a notable portion remains neutral or skeptical, indicating mixed opinions on the distinctiveness of IKS compared to other subjects.

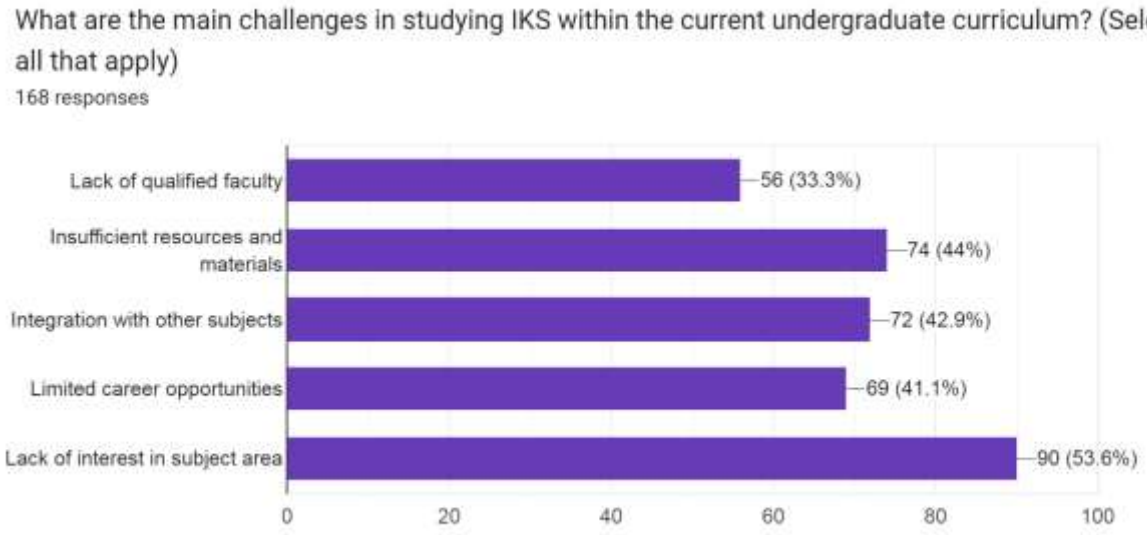
10. **How likely are you will recommend learning of IKS as a subject?**

A significant portion of students is inclined to recommend the inclusion of Indian Knowledge Systems (IKS) as a subject, with 46.4% being "very likely" or "somewhat likely" to do so. However, a larger group remains neutral or is less enthusiastic, reflecting varied opinions on the recommendation of IKS as a formal subject in the curriculum. A smaller group (14.2%) is unlikely or very unlikely to recommend IKS, indicating potential areas for improvement in IKS curriculum or teaching methods.

11. **How do you think the NEP has impacted the emphasis on IKS in undergraduate education?**

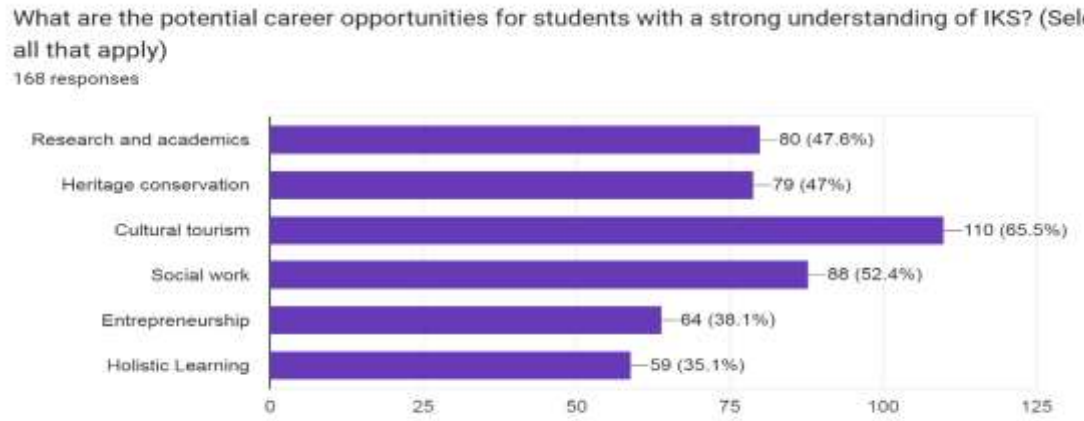
The majority of students (56%) believe that the National Education Policy (NEP) has increased the emphasis on Indian Knowledge Systems (IKS) in undergraduate education. In contrast, 39.3% feel there has been no significant change, indicating a mixed perception of the NEP's impact on IKS integration. The NEP appears to have had a positive influence on the prominence of IKS in undergraduate education. While a majority perceive an increased emphasis, a significant portion of students are neutral, indicating room for further efforts to promote IKS.

12**.Main challenges in studying IKS**



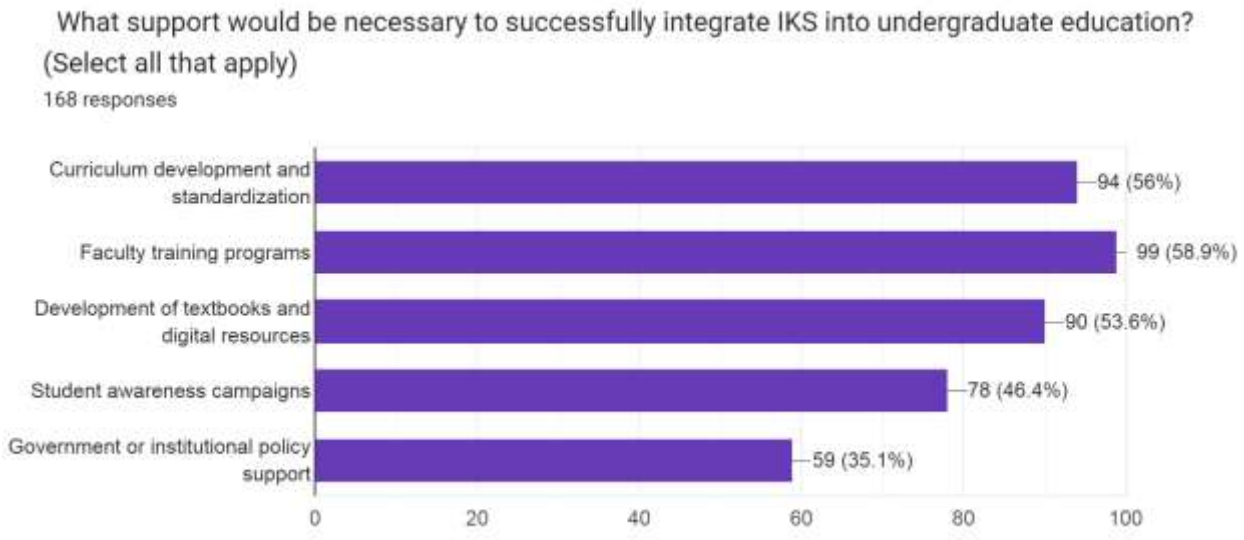
The study of Indian Knowledge Systems (IKS) within the current undergraduate curriculum faces several significant challenges. The most prominent issue is a lack of interest in the subject, reported by 53.6% of respondents, which suggests that engagement and motivation may be barriers to effective learning. Insufficient resources and materials (44%) further hinder the ability to deliver comprehensive IKS education, highlighting a need for better-developed instructional support.
Integration with other subjects (42.9%) presents another challenge, indicating difficulties in seamlessly incorporating IKS into existing curricula and interdisciplinary frameworks. Limited career opportunities (41.1%) also pose a concern, as students may perceive IKS as less relevant to their professional futures. Lastly, a shortage of qualified faculty (33.3%) underscores the need for trained educators who can effectively teach and advocate for IKS. These challenges collectively impact the successful implementation and reception of IKS in undergraduate education.

13. Potential Career Opportunities of studying IKS



Students perceive a wide range of career possibilities with a strong understanding of Indian Knowledge Systems (IKS).A significant portion (47.6%) see research and academia as potential career paths. Heritage conservation and cultural tourism are also popular choices, reflecting the cultural relevance of heritage. Social work and holistic learning are seen as valuable applications of IKS, highlighting its potential for societal impact. A significant number of students (38.1%) believe IKS can provide a foundation for entrepreneurial ventures.

14. Support to integrate IKS



Successful integration of Indian Knowledge Systems (IKS) into undergraduate education requires several forms of support:

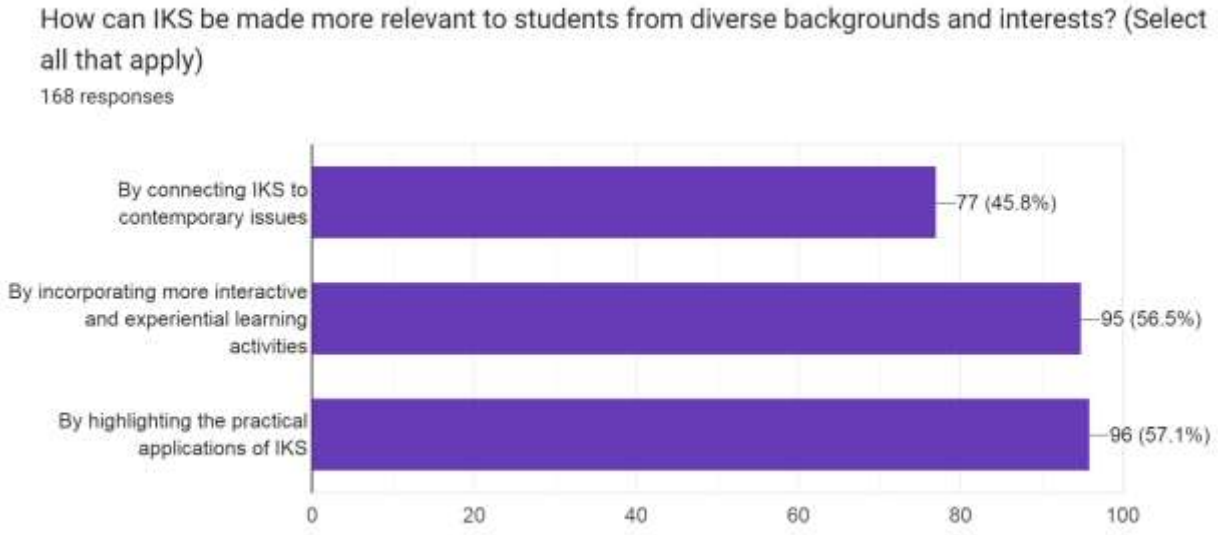
1. **Faculty Training Programs (58.9%)**: The majority of students believe that training programs for faculty are crucial, emphasizing the need for educators to be well-equipped to teach IKS effectively.
2. **Curriculum Development and Standardization (56%)**: A significant portion of respondents see the development and standardization of curricula as essential for ensuring consistent and comprehensive IKS education across institutions.
3. **Development of Textbooks and Digital Resources (53.6%)**: There is a strong call for creating and providing textbooks and digital resources to support IKS learning, indicating a need for accessible and up-to-date educational materials.
4. **Student Awareness Campaigns (46.4%)**: Almost half of the respondents believe that raising student awareness about IKS is important for fostering interest and engagement in the subject.
5. **Government or Institutional Policy Support (35.1%)**: A smaller but notable percentage recognizes the importance of policy support from government or institutions to promote and sustain IKS integration.

The majority of students expressed interest in learning about IKS, citing curiosity about their cultural heritage and a desire for a more holistic education. However, some students were concerned about the practical relevance of IKS in their professional lives.

15. **The perception of the quality of Indian Knowledge Systems (IKS)** education available at the institution is generally positive. About 50.6% of students rate it as "Good," indicating that a majority find the IKS education satisfactory. However, 27.4% view it as "Average," suggesting room for improvement. A smaller portion of students rate it as "Poor" (9.5%), and only 12.5% consider it "Excellent," reflecting that while there are positive assessments, there is still significant potential for enhancing the quality of IKS education.

16. The satisfaction with the integration of Indian Knowledge Systems (IKS) into the overall curriculum is mixed among students. A majority, 51.8%, are "Neutral," suggesting that while there are some positive views, many students feel indifferent or unsure about the integration. About 31.5% are "Satisfied," indicating a moderate level of approval. Only a small percentage are "Very satisfied" (6%), and a combined total of 10.7% are "Dissatisfied" or "Very dissatisfied," highlighting areas where improvements could be made.

17. Strategies to make IKS Relevant



To make Indian Knowledge Systems (IKS) more relevant to students from diverse backgrounds and interests, the following approaches were suggested by the respondents.

1. **Highlighting the Practical Applications of IKS (57%):** Emphasizing how IKS can be applied in real-world scenarios is considered essential for demonstrating its relevance across various fields and making it more meaningful to students.
2. **Incorporating More Interactive and Experiential Learning Activities (56.5%):** Engaging students through hands-on and interactive experiences is seen as a key method for making IKS more engaging and relatable, catering to different learning styles and interests.
3. **Connecting IKS to Contemporary Issues (45.8%):** Relating IKS to current global and local issues helps students see its relevance in addressing modern challenges, thereby enhancing its significance in contemporary discussions.

18. A substantial majority of students believe that studying Indian Knowledge Systems (IKS) can contribute to a more inclusive and culturally sensitive learning environment. Specifically, 44% agree and 16.1% strongly agree, indicating a strong belief in the positive impact of IKS on cultural sensitivity and inclusivity. Meanwhile, 34.5% are neutral, suggesting some uncertainty or varying opinions on the issue. Only a small percentage disagree (3%) or strongly disagree (2.4%), highlighting that most students see value in IKS for fostering a more inclusive educational setting.

5. Conclusion and Suggestions

5.1. Conclusion

The research underscores the relevance of learning IKS as a subject among undergraduate students. It not only enriches their education but also empowers them to contribute meaningfully to society. While challenges exist, the potential benefits of IKS education are significant.

5.2. Suggestions

 Develop a Comprehensive Curriculum: Design a well-structured curriculum that covers various aspects of IKS, including philosophy, arts, sciences, and traditional practices. Ensure that it integrates both theoretical knowledge and practical applications.

 Incorporate Interactive and Experiential Learning: Use hands-on activities, field visits, workshops, and real-world projects to make IKS learning engaging and relevant. Interactive methods can help students connect more deeply with the subject matter.

 Provide Faculty Training: Invest in training programs for faculty to equip them with the necessary knowledge and teaching strategies for IKS. This will enhance the quality of instruction and ensure consistency in teaching standards.

 Develop and Update Resources: Create and maintain textbooks, digital resources, and multimedia content that are up-to-date and accessible. Incorporate traditional texts and contemporary interpretations to provide a comprehensive learning experience.

 Promote Interdisciplinary Integration: Encourage the integration of IKS with other subjects, such as environmental science, ethics, and cultural studies, to highlight its relevance and applicability across various fields.

 Conduct Student Awareness Campaigns: Organize workshops, seminars, and outreach programs to increase student interest and awareness about the importance and benefits of IKS.

 Seek Policy Support: Advocate for institutional and government support to promote and sustain IKS education. This can include policy changes, funding, and support for research in IKS.

 Facilitate Practical Applications: Highlight and explore the practical applications of IKS in contemporary contexts, such as sustainability practices, health and wellness, and cultural heritage conservation.

 Encourage Research and Innovation: Support student and faculty research in IKS, and encourage innovative projects that explore new ways of applying traditional knowledge in modern contexts.

 Foster Collaboration: Build partnerships with cultural organizations, heritage institutions, and traditional knowledge practitioners to enrich the learning experience and provide real-world insights.

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