

Integration of Indigenous Knowledge in School Education and NEP-2020

B. Sagarika
Research Scholar, Osmania University,
Hyderabad.

Abstract

Indigenous knowledge and traditional ways of learning will be covered and included in mathematics, astronomy, philosophy, yoga, architecture, medicine, agriculture, engineering, linguistics, literature, sports, and games, as well as in governance, polity, and conservation." Students in secondary school will also have the option to take an interesting course on Indian Knowledge Systems. The inclusion of Indigenous traditional knowledge (ITK) in the NEP 2020 vision is a crucial component. Indigenous Traditional Knowledge (ITK) is an essential component of a community's culture and history. It has developed over many years of consistent experimenting with daily living and the resources that are close to the community. It is the distinct, age-old local knowledge that has grown up around and within the particular circumstances of men and women who are native to a given region. Indigenous traditional knowledge systems aid us in realising that there are various lenses through which we might perceive and learn about the world. To maintain the survival, transfer, and maintenance of knowledge and worldviews that support spirituality, abundance, balance, resilience, adaptability, sustainability, living within the carrying capacity, and making decisions collectively for the good of everyone, indigenous education is necessary. It will accelerate growth, particularly in our nation, which has a thriving and wonderful culture.

Keywords: *Indigenous knowledge, Education, National education policy, Integration.*

Introduction

The word "indigenous" describes something that is one's own and something that has been self-learned or self-acquired and owned, with the owner having the right to use it however they see fit and even to modify it. The claim that underlies initiatives to popularise indigenous educational or knowledge systems is that "sophisticated knowledge of the natural world is not confined to science. Globally, human societies have amassed extensive collections of observations and justifications pertaining to the ecosystems they call home. The term "traditional ecological knowledge" or "indigenous or local knowledge" is frequently used nowadays to describe these "other knowledge systems." These 'other knowledge systems' are today often referred to as traditional ecological knowledge or indigenous or local knowledge.

Indigenous Knowledge

Indigenous Knowledge or Indigenous Education (IK/IE) is characterised as 'local' knowledge that is the treasure of a particular civilization and its culture. It is the nation's cultural centre. As a result, it is passed down from one generation to the next mostly or exclusively through oral traditions, customs, crafts, and other parts of daily life. Nearly every facet of a person's existence in that civilization adds to the accumulation of information and learning. To learn how to survive and adapt to life's problems, local life experiences are utilised. This article focuses on living sustainably. Indigenous education involves the identification and development of indigenous skills and knowledge, not just informal learning. knowledge that have been demolished or made redundant due to the introduction of modern systems of education.

Hindu schools that taught or passed along native knowledge and skills often had a single teacher, used Sanskrit or native languages as their primary language of instruction, and were financially supported by the students' parents or kings and nobles. In many instances, the teacher used to double as the local temple's priest.

The benefits of indigenous education are now becoming more widely known and seen. At the same time, it is essential that children in indigenous communities have access to contemporary schooling. Children from nearby areas are forced to study and use modern teaching and learning techniques, alienating them in the process. Even if it's crucial to acknowledge and encourage indigenous education based on traditional methods, the advantages of contemporary "western" education for indigenous populations cannot be completely discounted.

This rich legacy of ancient and timeless Indian knowledge and thinking is acknowledged as a guiding element in the NEP, 2020. Jnan, Vignan, and Jeevan Darshan are the three components of the Indian Knowledge Systems, which have developed through experience, observation, experimentation, and thorough analysis. Our education, arts, administration, law, justice, health, manufacturing, and commerce have all been touched by this legacy of validating and putting into practise. This has influenced Bharat's classical languages as well as other languages that were passed down through oral,

written, and artistic traditions. The term "knowledge of India" in this context refers to information about ancient India, its achievements and difficulties, as well as an understanding of India's future objectives with regard to education, health, the environment, and indeed all facets of life.

The following are the benefits of indigenous knowledge:

It is the foundation for the problem-solving strategies for the local society.

For solving the problem of the local society use of indigenous knowledge and skills is very important.

Local society is facing various problems for maintaining their well-being.

Indigenous knowledge and skill is one of the most significant factors for solving their problems.

It is a significant component of global knowledge and skills on the development issue.

Indigenous education focuses on teaching the indigenous knowledge models, methods, and content in formal as well as non-formal education. Indigenous education is a way to protect and develop traditional skills and cultures

Significance of Indigenous Knowledge and Skill Practices:

Indigenous people manage their knowledge within their local socioeconomic and agroecological contexts. This refers to the knowledge, abilities, and philosophies that cultures gain over time. It is a crucial component of sustainable growth and exclusive knowledge restricted to a specific culture or society. The traditional knowledge and skill practise is indigenous knowledge and skill. But not all traditional knowledge and skills are indigenous knowledge. Indigenous knowledge and abilities serve as the cornerstone for local level decision-making in the areas of food security, human and animal health, and education. To produce or create content for vocational education, it is vital to have a thorough understanding of indigenous skills and knowledge.

Indigenous science

Indigenous science is the branch of knowledge developed independently by Indigenous peoples without the aid of science. Indigenous science refers to the method by which Indigenous people develop their empirical understanding of their natural environment. Indigenous science is the method through which indigenous people develop their empirical knowledge of their natural surroundings if we define "science" as the methodical accumulation of knowledge about the natural world. Indigenous science employs scientific theories in practise just as they do in theory. Indigenous people are utilising science more and more in their daily lives.

Relationship between indigenous knowledge and science

The majority of scientists distinguish between scientific and indigenous knowledge, claiming that whereas indigenous knowledge is peculiar to a set of people and their conceptions of the cosmos, scientific knowledge is universal. In other instances, local knowledge is absorbed into science, but only if it complies with the discipline's criteria. Indigenous Knowledge, on the other hand, is not recognised to be scientific knowledge because it does not match those criteria. It's also possible to view science and Indigenous Knowledge as two different ways of looking at the world, one that emphasises the individual parts and the other that emphasises the bigger picture. It is simple to demonstrate how one system can function in conjunction with another using this study.

Mechanism for Integrating Indigenous Knowledge and Skills with Vocational Education:

A conceptual framework is developed in this research paper. According to this framework, there are five important mechanisms to integrate indigenous knowledge with the vocational education

1. Participation of Indigenous Society or Community in the Field of Technical and Vocational Education:
2. Adopting Cultural diversity in the Vocational Programme:
3. Use the local Environment and Community Resources:
4. Manipulate the environment for sustainable development and strategies
5. Introduce Technical and Vocational Subjects for Indigenous students

Vedic mathematics

In the years between 1911 and 1918, the Indian monk Bharathi Krishna Tirtha reframed and rediscovered the ancient treasure of Vedic mathematics. Vedic mathematics emerged from the Vedas; the word "Veda" is a Sanskrit word that signifies "knowledge." Vedic mathematics uses sutras and methods that make it simpler and quicker to solve mathematical problems. Calculations are made simpler by the Vedic math's 16 sutras and 13 sub-sutras. Vedic techniques, which date back 5,000 years, can still be used to understand the burgeoning field of mathematics. There is nothing you can do without mathematics, according to Shakuntala Devi. You are surrounded with maths everywhere. You are surrounded by numbers everywhere. Since mathematics is the foundation of all other knowledge, it should be made accessible and fun for those who find it challenging. Vedic mathematics is used to teach mathematics, which makes learning fun for kids. To support the claim, much study has been conducted both in the past and in the present. Vedic mathematics is more adaptable and coherent, boosts mental acuity and creativity, and increases memory. We may make computations quickly and easily by
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using Vedic mathematics. Amulya (2021) emphasized that, in terms of student accomplishment, the Vedic approach of multiplication outperforms the traditional way. Vedic mathematics was put to the test in an experiment conducted by Dipika in 2015, and it was discovered that Vedic mathematics outperformed the conventional method.

Languages

The only means of expressing one's identity and culture, as well as one of the most powerful symbols of human diversity, is language. Around 3,000 of the 7,000 surviving languages in the world are categorized as "endangered." This implies that approximately half of the current linguistic variety on the planet is in danger. India's predicament is worrying. More than any other nation in the world, ours has 197 languages that are endangered in varying degrees. India may have lost 220 languages since 1961, according to Ganesh N. Devy, founder-director of the Bhasa Research and Publication Centre in Vadodara and the Adivasi Academy in Tejgadh, Gujarat. Based on the 1,652 mother tongues reported in the Census, there have been 1,100 languages since 1961. 150 additional languages could go in the upcoming Linguistic expert Devy documented 780 living languages and claims that 400 of them are at risk of dying.

In India, there are five tribal languages that are in danger of disappearing. According to linguists, Majhi in Sikkim is the language that is most in danger. Only four people currently speak Majhi, all of whom are related to one another, according to research by People's Linguistic Survey of India.

Similar to the Dimasa language in Assam, Sidi in Gujarat, Koro in Arunachal Pradesh, and Mahali in eastern India are in danger of disappearing. Asur, Birhor, and Korwa were until recently included on UNESCO's list of endangered languages, with Birhor being designated as "Critically Endangered" with only 2,000 speakers remaining.

Any language that is spoken by fewer than 10,000 people could be in risk, according to UNESCO. Following the 1971 census, the Indian government declared that any language with fewer than 10,000 speakers did not need to be on the list of recognised languages.

Since 1971, only languages with more than 10,000 speakers have been included in the Census. It caused the number of languages to drop to 108 in the 1971 Census from 1,652 a decade earlier.

Folk Art

Folk arts were one of the few entertainment options available in ancient India in terms of Indian art and culture. Indian folk arts are based on culture and have been passed down through the generations. These traditional arts encompass a wide variety of genres, including as music, dancing, puppetry, and storytelling. This is a distinctly distinctive aspect of Indian art and culture.

The art of storytelling has existed in Indian art and culture for as long as people have been telling one another stories. Over time, it has changed to reflect advancements in technology, religion, and social conventions. People would congregate around a fire at night and tell each other stories, according to legend, and this is where storytelling is supposed to have started.

The essence of Indian art and culture lies in the folk arts, which are aesthetic traditions that have their roots in everyday life and have been passed down through the years through informal instruction. These include the creation of ceremonial and decorative objects, as well as works in painting, drawing, sculpting, printmaking, blacksmithing, pottery, weaving, and other textile arts. The art and culture of India have always been a fusion of various traditions and cultures. Due to its rich history and dynamic culture, it is also one of the few sites in the world that has managed to conserve centuries-old folk art.

Over 50 traditional folk and tribal arts can be found in India. Over three thousand years have gone since the first transmission of these Indian traditional arts. However, a sizable part of these customs face extinction. The once-vibrant artistic community has now shrunk to a few families struggling to maintain it. Indian culture places a high value on and respects Indian folk art. Generations of craftspeople have kept and improved it. The community learnt to employ materials that were easily accessible to them, including clay, straw, wood, and more, and the art form was developed to meet their requirements.

Drama

Drama has a long and illustrious history in India. Indian dramas come in a variety of forms and languages. Sanskrit plays serve as the foundation for Indian drama. Famous historian A.L. Basham believed that "the origin of Indian theatre is still obscure." The ability of genius to transform ordinary life events into works of art and to conceal the potential to reconstruct life outside of the boundaries of what appears to be the realistic fabric of human conditions. With its roots in classical Sanskrit models, Indian drama has become a powerful force in the post-modern era, bridging the gap between "page and stage" and bringing theatre to the stage. However, it is evident that dramatic performances of some sort were given even throughout the Vedic period. dramatic performances of some kind were given, and passing references in early resources point to the inaction at festivals of religious legends, perhaps only in dance and mime" Indian traditions are preserved in the Natyasastra the oldest of the texts of the theory of the drama. The drama's heavenly origin and deep ties to the revered

Vedas themselves are claimed by this play. The ancient laws and seasonal celebrations of the Vedic Aryans can be linked to the origins of Indian English play. Dramatic performances at that period typically featured musical accompaniment and the portrayal of ordinary daily activities. Some tribal members pretended to be wild animals, while others pretended to be hunters. A fake hunt was performed, in which those acting as hunters pursued those acting as goats, buffaloes, reindeers, and monkeys. Drama was performed in such rudimentary and basic ways throughout the Vedic Aryan era. In the future, certain scenes from The Ramayana (Ram Leela),

Culturally Responsive Pedagogy

A teaching strategy known as culturally responsive pedagogy (CRP) recognizes the socioeconomic, racial, and linguistic variety of students in the classroom. The goal of CRP is to actively accept and incorporate cultural diversity into the educational process, going beyond merely tolerating them. In order for children to learn effectively, their cultural histories and identities must be acknowledged, valued, and incorporated into the curriculum and teaching strategies, according to the fundamental tenet of CRP.

The Need for Culturally Responsive Pedagogy: Teachers must successfully engage pupils from a variety of cultural backgrounds as classroom diversity increases. All students might not find traditional teaching techniques engaging, especially those who come from underrepresented or marginalised areas. Students from various backgrounds could feel alienated, misunderstood, or excluded if a programme like CRP isn't inclusive. This may result in poorer academic achievement, lower self-esteem, and a lack of interest in learning.

Experiential learning: It gives students the chance to start lifelong learning by developing and using their knowledge and skills in the context of various learning environments. It is a well-known pedagogy to hasten learning and offer a secure learning environment with higher levels of learner involvement. It is a well-known method to quicken learning and give students a pleasant learning environment with higher levels of engagement.

‘ARTS’ as a Pedagogical tool of learning Art Integrated Learning (AIL) is a technique of teaching and learning that places an emphasis on education "through" and "with" the arts. It's a teaching and learning approach that makes use of art, and it's essential for understanding ideas in all academic areas. Through a range of art media, students engage in creative inquiry while connecting seemingly unrelated themes. Experiences in the visual (drawing and painting, clay modeling, pottery, paper crafts, making masks and puppets, heritage crafts, etc.) and performing (music, dance, theatre, puppetry, etc.) arts aid in the construction of knowledge about variety of subjects. The arts are adaptable enough to offer pupils who desire to explore at their own pace age-appropriate options. This is consistent with the experiential learning methodology.

The arts can be used to teach students at all levels of education. Art-integrated learning is a hands-on approach that encourages pupils to use their imagination and emotional skills.

Philosophy

India has a long and rich philosophical history that dates back to the later Vedic era, when the Upanishads were written. The oldest of these, in Radhakrishnan's words, "represent the earliest philosophical compositions of the world." Indian philosophy, or the ways of thinking and reflecting that the civilizations of the Indian subcontinent have evolved. The Nyaya, Vaisheshika, Samkhya, Yoga, Purva-Mimamsa (or Mimamsa), and Vedanta schools of philosophy are included, as well as unorthodox (nastika) systems like Buddhism and Jainism. The nature of the world (cosmology), the nature of reality (metaphysics), logic, the nature of knowledge (epistemology), ethics, and the philosophy of religion have all been prominent philosophical issues in Indian thought. Depending on whether they view the Veda as an infallible source of knowledge, different schools (Skt: Darshanas) of Indian philosophy have been classified as orthodox (Skt: astika) or non-orthodox (Skt: nastika) from the late mediaeval period (ca. 1000–1500). There are three heterodox schools and six orthodox schools of Hinduism. The orthodox include Vedanta, Yoga, Purva Mimamsa, Nyaya, Vaishesika, and Samkhya. Jain, Buddhist, and materialists (Crvka) are the heterodox. Vidyaraya, on the other hand, divides Indian philosophy into sixteen schools, including schools associated with Saiva and Rasesvara thinking along with others. In India, the major schools of philosophy were formally established primarily between 1000 BC and the first centuries AD.

Indigenous games

According to Ferreira (2014), indigenous games are a part of the indigenous people's symbolic patrimony. The Latin word "indigena," which meaning "native," is the source of the English word "indigenous." Indigenous really refers to a particular, possibly small geographic area. That applies to all living things, even those that are born or develop in their natural habitats. When talking about humans, it has a connotation of connecting to the first people who were ever recorded living in a specific location, especially one that had been colonised. The Merriam-Webster dictionary defines indigenous as something that is not only native but has never been introduced from anywhere else. Consequently, the term

"indigenous games" can refer to those that have been created from any specific place or particular geographical area, i.e. native to a place.

This list comprises both indoor and outdoor games, and hence, it is beneficial for both physical and mental strength.1. Kabaddi 2. Kho-kho 3. Kancha or Lakhoti4. Hopscotch or Nondi5. Gilli Danda6. Lattoo7. Chaupar8. Pallankuli9. Lagori10. Antakshari11. Moksha Patam12. Chupan Chupai13. Aankh Micholi14. Vish-Amrit

Conclusion

Indigenous games are a part of the symbolic cultural heritage of the indigenous people. The Latin term "indigena," which means "native," is where the word "indigenous" actually comes from. Indigenous actually refers to a particular physical region, which may or may not be large. That also applies to living things that are truly born or developed in the places to which they belong. When discussing humans, it has a notion of connecting to the first people who were ever recorded living in a specific location, particularly one that had been colonized. Indigenous refers to something that is not simply native but has never been imported from another place, according to the Merriam-Webster dictionary. Therefore, the term "indigenous games" can be used to describe games that have been created from any specific place or particular geographical area, i.e. native to a place. Because of its accessibility and effectiveness, indigenous knowledge is also prone to misappropriation and exploitation by contemporary science and wealthy technical bodies, particularly knowledge related to the treatment of various ailments, cosmetics, medicinal characteristics, etc. Because of this, the exploitation of traditional knowledge through "bio-prospecting or bio-piracy," in which scientists from developed nations use indigenous knowledge from communities to develop specific drugs or other products without acknowledging the communities' legal claims to the intellectual property rights therein, poses a threat to the indigenous community and its knowledge system.

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