

Indian Philosophy, Poetry, and Physics: A Triadic Approach to Enhancing Physics Education

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Abstract

Integrating diverse educational approaches is essential for enhancing student engagement and understanding in complex subjects like physics. This research paper proposes a novel approach that combines the power of poetry and Indian philosophical wisdom to enrich physics education. By leveraging the beauty of language and the depth of ancient philosophical traditions, this interdisciplinary approach aims to foster a deeper appreciation and comprehension of physics concepts among students.

The integration of poetry in physics education offers a unique opportunity to engage students' emotions and imagination. Carefully crafted poems can convey complex scientific concepts in an accessible and relatable manner, enabling students to develop a personal connection with the subject matter. Metaphors, analogies, and rhythmic patterns found in poetry bridge the gap between abstract physics principles and real-world experiences. By engaging both analytical and creative thinking, poetry provides a holistic learning experience that enhances comprehension and retention.

Furthermore, incorporating Indian philosophical tools brings a rich cultural and philosophical context to physics education. Indian philosophy explores the nature of reality, consciousness, and the interconnectedness of all things, complementing scientific understanding. Concepts such as dharma (duty), karma (action and consequence), and maya (illusion) deepen the ethical dimensions and implications of physics. Exploring the interconnectedness of all things helps students appreciate the interdependencies and interrelations inherent in physical phenomena.

This interdisciplinary approach can be implemented through various strategies. Creative writing exercises encourage students to express scientific concepts through verse. Integrating selected poems into the curriculum stimulates class discussions and critical analysis, fostering intellectual curiosity and dialogue. Additionally, philosophical discussions within physics lessons explore the ethical implications and societal relevance of scientific advancements.

To evaluate effectiveness, a mixed-method research design will be employed. Pre- and post-intervention tests will measure improvements in students' conceptual understanding and retention of physics knowledge. Interviews and surveys will capture students' subjective experiences, including engagement levels, emotional connections, and perceptions of the integrated approach.

Embracing poetry and Indian philosophical tools transforms the physics education landscape, fostering a holistic and interdisciplinary approach that nurtures intellectual, emotional, and cultural growth. This integration cultivates students' appreciation for the beauty and interconnectedness of the physical world, empowering them as scientifically literate and ethically conscious global citizens.