

E-ISSN: 2582-2160 • Website: www.ijfmr.com • Email: editor@jjfmr.com

# Fostering Universal Human Values Through Interdisciplinary Education: Insights from NEP 2020

# **Kumud Verma**

Doctoral Research Scholar & Assistant Regional Director, IGNOU

#### **ABSTRACT**

The concept of Universal Human Values (UHV) has gained significant attention in the field of education as a means to foster holistic development and promote a more equitable and just society. Indias' National Education Policy (NEP) 2020 emphasizes the integration of UHV through interdisciplinary education, aiming to develop intellectual, aesthetic, social, physical, emotional, ethical, and moral facets of learning outcomes. This study critically examines how NEP 2020 integrates UHV within its interdisciplinary framework, aligning educational goals and outcomes with national and international mandates. Adopting a qualitative methodology, the paper reviews literature, policies, and research to analyze the seamless incorporation of UHV into curricula and pedagogical practices at all levels of education. It highlights key challenges and opportunities in implementing values-based interdisciplinary education and offers actionable strategies to enhance the policy's practical application. The findings underscore NEP 2020's transformative potential in advancing holistic, values-driven education, contributing meaningfully to sustainable development and a more equitable global future.

**Keywords:** Universal Human Values (UHV), Interdisciplinary Education, National Education Policy (NEP) 2020

**JEL Codes: I21**: Analysis of Education, **I28**: Government Policy, **Q01**: Sustainable Development. **Z12**: Ethical and Religious Norms

#### INTRODUCTION

In an era of rapid global transformation and pressing sustainable development challenges, value-integrated education has become essential for addressing complex societal and global issues (UNESCO, 2015). The integration of **Universal Human Values** (**UHV**) into education fosters holistic development, empowering learners to navigate intricate challenges while promoting sustainability, ethical accountability, and personal growth (Hawkes, 2001).

Traditional educational paradigms often compartmentalize values and ethics which limits the integration of moral and ethical dimensions with cognitive skills, social behavior, and technical competencies, restricting education's holistic potential.

India's **National Education Policy (NEP) 2020** addresses this gap through a transformative framework grounded in interdisciplinary approaches. By dismantling disciplinary silos, it promotes an inquiry-driven lens rooted in principles of ecology and collaboration. This interdisciplinary approach draws from



E-ISSN: 2582-2160 • Website: <a href="www.ijfmr.com">www.ijfmr.com</a> • Email: editor@ijfmr.com

diverse disciplines and methodologies to tackle complex problems (Frodeman, 2010), equipping learners with skills to navigate real-world challenges. NEP 2020 seamlessly integrates cognitive, social, and ethical dimensions into curricula and pedagogy, fostering a broad-based, interconnected learning experience..

NEP 2020 positions interdisciplinary education as a foundation for sustainable development and societal well-being. It emphasizes STE(A)M integration, leveraging technology, and vocational education for enhanced access and quality. Central to its vision is embedding UHV into education to foster empathy, integrity, environmental awareness, and social responsibility in learners.

This paper examines how NEP 2020's interdisciplinary provisions foster UHV by integrating them across curricula and pedagogy. It also explores the alignment of NEP 2020 with national and global frameworks advocating values-based education, highlighting their synergy in promoting holistic learning objectives.

Employing a qualitative methodology, the Paper analyses the NEP 2020 policy document, assessing its provisions on interdisciplinary education and the integration of UHV. Additionally, it reviews select policy frameworks to examine the alignment of NEP 2020's interdisciplinary approach with national and global directives on UHV.

The study underscores NEP 2020's potential to redefine education by seamlessly integrating UHV into teaching-learning practices, moving beyond fragmented approaches traditionally seen in value-based education. It also highlights the policy's transformative capacity to align educational reforms with global imperatives while fostering sustainable and ethical development. The findings enrich the discourse on educational reforms for sustainable development, offering actionable strategies to facilitate the integration of UHV into curricula and pedagogy through interdisciplinary approaches.

## CONCEPTUAL & THEORETICAL FRAMEWORK

# **Interdisciplinary Education**

Interdisciplinary education, a cornerstone of NEP 2020, implies integration of knowledge and methodologies from diverse disciplines to address complex, real-world challenges. It marks a paradigm shift from siloed, discipline-specific learning to an integrated framework that emphasizes ethical, social, and environmental dimensions of knowledge.

The theoretical foundations of interdisciplinary education are rooted in experiential and inquiry-based learning, drawing significantly from Dewey's **Progressive Education Theory**. Dewey (1938) critiques the compartmentalization of knowledge and rote memorization in traditional education, advocating for experiential learning and integrated curricula to promote ethical reasoning, critical thinking, and active citizenship. Building on this, Hyland (1995) highlights the integration of values such as dignity, respect, and social responsibility into vocational and skill-based education, enhancing its ethical and societal impact.

## **Key Theoretical Foundations:**

- 1. **Holistic Understanding**: Combines insights from multiple disciplines to address global challenges such as inequality and climate change (OECD, 2019).
- 2. **Epistemological Pluralism**: Encourages critical engagement, adaptability, and appreciation of diverse ways of knowing and learning and and holistic problem-solving by promoting the integration of various epistemological perspectives (Chika, 2019).



E-ISSN: 2582-2160 • Website: <a href="www.ijfmr.com">www.ijfmr.com</a> • Email: editor@ijfmr.com

3. **Supra-Disciplinarity**: Leverages cross-disciplinary efforts to transcend academic boundaries, fostering innovative solutions to complex problems (Balsiger, 2004).

These foundations highlight interdisciplinary education's transformative role in equipping learners with critical, adaptive, and solution-oriented skills to navigate the complexities of a rapidly evolving world. Empirical studies affirm interdisciplinary education's transformative potential in fostering 21st-century skills such as critical thinking, creativity, ethical consciousness, and collaboration (McAuliffe, 2016; Holbrook et al., 2020), which are pivotal for addressing engagement with complex issues (Holbrook et al., 2020; Yakman, 2019) and also for achieving sustainable development goals (Toomey et al., 2015; Chika, 2019). Global directives (OECD, 2019; UNESCO, 2021, 2023) highlight interdisciplinary education as essential for fostering social responsibility, sustainability, and ethical decision-making in an AI-driven, interconnected world.

## **Universal Human Values (UHV)**

Universal Human Values (UHV) are ethical principles that transcend cultural, religious, and national boundaries, encompassing empathy, integrity, respect, social justice, and environmental responsibility. These values are foundational for fostering ethical behavior and Sustainable Development Goals (SDGs) (UNESCO, 2019; OECD, 2021).

Universal Human Values (UHV) in education integrate compassion, ethics, and social responsibility into teaching-learning processes, fostering ethical conduct, social accountability, and holistic growth (Bergman, 2004). Value-based education extends beyond academics, cultivating moral reasoning, empathy, and social justice, preparing learners for modern complexities (UNESCO, 2021; OECD, 2021). Research highlights UHV-integrated education as a driver of inclusivity, community strength, and global readiness, fostering empathy, integrity, and societal well-being.

## **Key Theoretical Foundations**

The integration of Universal Human Values (UHV) into education is grounded in theoretical foundations that promote ethical reasoning, empathy, social responsibility, and holistic development. Hawkes' (1995) Value-Based Education (VbE) Framework emphasizes moral reasoning, reflective thinking, and ethical modeling by teachers in inclusive environments, fostering resilience and social responsibility to address global challenges like inequality and sustainability. Supporting frameworks include; Ethics of care (Bergman, 2004), focusing on respect and ethical relationships; Holistic education theory (Miller et al 2019), advocating balanced personal and societal growth; and Freire's critical pedagogy (Aliakbari & Faraji, (2011), highlighting education's role in fostering critical thinking and challenging inequities. Together, these theories provide a cohesive foundation for UHV-integrated education, aligning ethics with holistic growth and societal well-being.

Global frameworks like UNESCO's **Education for Sustainable Development** (2017) and OECD's **Learning Compass 2030** (2019) emphasize embedding Universal Human Values (UHV) into education to promote sustainability, global citizenship, and ethical behavior. These initiatives advocate integrating ethical practices into curricula to prepare future generations for a just and responsible global society, fostering ethical reasoning, empathy, and social responsibility while equipping learners for holistic growth and global challenges.

#### **NEP 2020 and Interdisciplinary Education**

The National Education Policy (NEP) 2020 envisions a transformative shift in India's education system, emphasizing a holistic, multidisciplinary, and flexible curriculum integrated with Universal Human Values (UHV). Its interdisciplinary focus seeks to:



E-ISSN: 2582-2160 • Website: www.ijfmr.com • Email: editor@ijfmr.com

- **Encourage Integration:** Promote interdisciplinary and multidisciplinary education for a well-rounded learning experience.
- Enhance Learning Quality: Integrate diverse methodologies and activities to improve access, quality, and the overall educational experience.
- **Foster Collaboration:** Strengthen institutional partnerships, community engagement, and functional linkages between education, industry, and society.

NEP 2020 redefines education through structural reforms, integrating technology, life skills, and vocational training into mainstream curricula. This ensures learning transcends traditional boundaries, equipping students to address real-world complexities and societal challenges effectively.

#### **METHODOLOGY**

This research adopts a qualitative methodology, conducting an in-depth review of policy documents and relevant literature. The policy analysis evaluates NEP 2020's provisions on interdisciplinary education and Universal Human Values (UHV), examining their alignment with national and international educational frameworks while uncovering patterns and opportunities within NEP 2020's interdisciplinary framework and its role in fostering UHV.

## **FINDINGS & DISCUSSION**

# 1. NEP 2020's Interdisciplinary Provisions and Integration of UHV

The policy analysis and literature review reveal that NEP 2020's interdisciplinary provisions offer a robust framework for integrating Universal Human Values (UHV) into curricula and pedagogy at all educational levels. The policy establishes a synergy between interdisciplinary education and UHV, emphasizing their mutual role in fostering ethical intelligence, inclusivity, and sustainable development within India's educational landscape.

# **Interdisciplinary Education under NEP 2020**

NEP 2020 approaches interdisciplinary education as integrating knowledge across disciplines to address complex, real-world issues comprehensively (NEP 2020, p. 7). This transformative approach seeks to embed UHV within educational structures to promote ethical reasoning, cultural awareness, and social responsibility. Rooted in Indian ethos and aligned with Sustainable Development Goals (SDGs), NEP 2020 envisions a holistic education system that prepares learners to navigate the complexities of a rapidly evolving world.

## **Key Components of NEP 2020's Interdisciplinary Approach:**

- 1. **Multidisciplinary Education:** Flexible curricula and pedagogy that foster holistic learning across diverse knowledge domains.
- 2. **Value Integration:** Embedding ethical principles and UHV at all educational stages to nurture socially responsible individuals.
- 3. **Experiential Learning:** Encouraging project-based learning methodologies that naturally instil creativity, critical thinking, and ethical reasoning.

# These components reflect in the **Key Provisions of NEP 2020**, such as:

- 1. Prioritizing emotional, social, and ethical growth beyond rote learning to foster Holistic Development.
- 2. Promoting integration of arts, sciences, and humanities (STEAM) and encouraging interdisciplinary inquiry including integration of UHV .



E-ISSN: 2582-2160 • Website: www.ijfmr.com • Email: editor@ijfmr.com

- 3. Promoting philosophy and social studies for moral reasoning and ethical responsibility.
- 4. Employing project-based learning and community service to cultivate empathy, social justice, and active citizenship.
- 5. Hands-on Experiential Learning to enhance creativity and ethical reasoning.
- 6. Advocating multilingual education to foster cultural understanding and diverse perspectives.
- 7. Preparing educators as role models for values-based learning.
- 8. Encouraging interdisciplinary research for sustainable solutions .
- 9. Emphasizing Lifelong Learning for adaptability and continuous growth to meet societal needs...

NEP 2020 (pp3-6) integrates values such as empathy, respect for diversity, integrity, tolerance, and service alongside commitment to justice, equality, scientific temper, and civic responsibility. These values are seamlessly embedded into curricula, pedagogy, and teacher training programs to nurture socially responsible and well-rounded individuals.

# **Curricular and Pedagogical Integration of UHV**

Articles 4 and 11 of NEP 2020 outline measures to restructure curricula and pedagogy, placing interdisciplinary education at the core of holistic and value-driven learning.

#### **Curriculum Features:**

- <u>Holistic Learning</u>: Embeds values like empathy and sustainability to foster socially responsible individuals
- Multidisciplinary Approach: Encourages integration of diverse disciplines for critical thinking
- <u>Culturally Relevant Content</u>: Leverages Indian heritage to contextualize learning.
- Life Skills: Focuses on resilience, communication, and active citizenship
- Formative Assessment: Evaluates ethical understanding alongside academics
- <u>Teacher Training</u>: Equips educators to integrate UHV into teaching.

## **Pedagogical Innovations:**

- Learner-Centered Methods: Fosters critical thinking and value internalization.
- Experiential Learning: Engages students in community projects promoting empathy.
- Collaborative Learning: Encourages teamwork and respect for diversity.
- <u>Integration Across Subjects</u>: Embeds values into all disciplines, linking ethics with technical knowledge.
- <u>Formative Assessment</u>: Provides ongoing feedback to enhance academic performance, ethical reasoning, and social skills.

## **Strategies for UHV Integration Across Educational Levels**

#### At the School Level:

- 1. <u>Foundational Skills</u>: Developing literacy and numeracy as a gateway for lifelong learning and ethical reasoning.
- 2. <u>Life Skills Development</u>: Equipping students with teamwork, communication, and resilience.
- 3. Cultural Relevance: Leveraging Indian traditional knowledge to emphasize values.
- 4. <u>Experiential Learning</u>: Engaging students in community projects to foster compassion and responsibility.
- 5. Ethics Education: Fostering ethical decision-making and social responsibility.
- 6. Formative Assessment: Providing ongoing feedback for ethical reasoning and social skills.



E-ISSN: 2582-2160 • Website: www.ijfmr.com • Email: editor@ijfmr.com

7. <u>Teacher Role Modeling</u>: Training educators to inspire ethical understanding and moral growth.

# At the Higher Education Level:

- 1. <u>Holistic Education</u>: Balancing academics with moral development by integrating ethical values into curricula.
- 2. <u>Interdisciplinary Learning</u>: Connecting fields to address ethical issues such as environmental and social justice.
- 3. <u>Community Engagement</u>: Promoting empathy and justice through service learning and experiential activities.
- 4. <u>Ethical Leadership</u>: Preparing graduates for value-driven leadership through ethics-focused programs
- 5. <u>Research Ethics</u>: Encouraging socially responsible research.
- 6. <u>Global Citizenship</u>: Broadening ethical awareness and perspectives through discussions on global challenges.
- 7. <u>Assessment Reforms</u>: Evaluating ethical understanding alongside academics to foster accountability.
- 8. Faculty Development: Equipping educators to model and teach ethical behaviour.

Thus NEP 2020's interdisciplinary provisions establish a strong foundation for integrating UHV into education by emphasizing holistic development, interdisciplinary learning, curriculum integration, community engagement, lifelong learning, and teacher training. Together, these provisions create a transformative education model that fosters ethical, socially responsible, and adaptable individuals capable of addressing societal complexities.

#### 2 NEP 2020's Alignment with National and Global Frameworks on UHV

The integration of Universal Human Values (UHV) into education is a unifying theme across global and national frameworks, aligning seamlessly with India's National Education Policy (NEP) 2020. Globally, the Education 2030 Framework promotes inclusive, equitable, and quality education by emphasizing respect, empathy, and social responsibility. It supports lifelong learning, civic engagement, and global citizenship, mirroring NEP 2020's interdisciplinary approach to addressing societal and environmental challenges. Similarly, the OECD Learning Framework 2030 highlights transformative competencies such as critical thinking, creativity, and collaboration, embedding UHV like empathy, cultural understanding, and ethical citizenship to prepare learners for global complexities.

Nationally, AICTE's Human Value-Based Education (HVBE) Framework (AICTE 2023) and UGC's Mulya Pravah 2.0 (UGC, 2023) complement NEP 2020's vision by embedding UHV into education. The HVBE Framework focuses on principles like honesty (Satya), moral integrity (Dharma), social harmony (Shanti), empathy (Prem), and peaceful coexistence (Ahimsa) to nurture cognitive, emotional, and ethical growth. It aligns with NEP 2020 by promoting experiential learning, interdisciplinary education, and community engagement to foster creativity, critical thinking, and responsible citizenship. UGC's Mulya Pravah 2.0 categorizes values into core values (truth, peace, love), constitutional values (equality, justice, dignity), and global citizenship (civic participation and sustainability). It complements NEP 2020's emphasis on embedding values across disciplines, teacher training, and experiential pedagogies to cultivate ethical decision-making and holistic development.

NEP 2020's provisions reflect a strong alignment with these global and national directives, prioritizing the integration of UHV to foster ethical, socially responsible, and adaptable individuals. Key insights include embedding values seamlessly into curricula, fostering creativity and critical thinking through



E-ISSN: 2582-2160 • Website: <a href="www.ijfmr.com">www.ijfmr.com</a> • Email: editor@ijfmr.com

interdisciplinary approaches, and empowering educators through targeted training. There is also alignment on emphasizing community engagement and robust evaluation mechanisms for continuous improvement in advancing a sustainable and value-driven education system that equips individuals to thrive in a dynamic, interconnected world.

#### **SUMMARY & DISCUSSION**

The findings of this study underscore the transformative potential of NEP 2020's interdisciplinary provisions in fostering Universal Human Values (UHV) across all levels of education. By integrating cognitive, emotional, and ethical dimensions into curricula and pedagogy, the policy redefines education as a value-driven and holistic framework. The policy's emphasis on experiential learning, teacher training, and community engagement ensures that students not only acquire academic knowledge but also develop critical thinking, empathy, and social responsibility. By embedding UHV into the heart of educational practices, NEP 2020 fosters inclusivity, sustainability, and lifelong learning.

The alignment of NEP 2020 with national frameworks like AICTE's HVBE and UGC's Mulya Pravah 2.0, alongside global directives such as UNESCO's Education 2030 and OECD's Learning Framework 2030, reflects a shared commitment to values-based education. This synergy strengthens NEP 2020's capacity to promote inclusivity, sustainability, and global citizenship, positioning it as a progressive model for modern educational reform. A key insight is the critical role of teachers in implementing UHV and interdisciplinary education through transformative curricula and pedagogy. NEP 2020's focus on capacity-building programs empowers educators to model and impart values effectively. Teacher training emerges as a cornerstone for ensuring the policy's transformative impact.

Despite its potential, effective implementation of NEP 2020's provisions faces challenges. Limited resources, institutional disparities, and resistance to change may hinder the seamless integration of UHV. Effective teacher training, robust monitoring mechanisms, and consistent policy execution are essential to realizing NEP 2020's vision.

The findings enrich the discourse on educational reforms, providing actionable strategies for embedding UHV into curricula and pedagogy. By aligning with the principles of holistic education and progressive pedagogy, NEP 2020 emphasizes the importance of adaptability, ethical reasoning, and community engagement in addressing contemporary challenges. Its interdisciplinary vision prepares learners for a rapidly evolving world, making India a leader in value-driven education and a global example of integrating ethics and sustainability into education.

#### **IMPLICATIONS**

The findings reveal the transformative potential of NEP 2020's interdisciplinary provisions in integrating Universal Human Values (UHV) into education, with significant implications for policy, practice, and societal advancement. NEP 2020 's interdisciplinary education offers values-driven education scalable models for educational reform and societal transformation through values-driven education. Key implications include:

- 1. Integrating **Universal Human Values** (**UHV**) through NEP 2020's interdisciplinary framework significantly enhances the quality of education by fostering critical thinking, ethical reasoning, and emotional intelligence alongside academic excellence.
- 2. Education systems aligned with UHV produce graduates equipped to address societal challenges, promoting a more compassionate, equitable, and socially responsible society.



E-ISSN: 2582-2160 • Website: <a href="www.ijfmr.com">www.ijfmr.com</a> • Email: editor@ijfmr.com

- 3. Emphasizing global citizenship and intercultural dialogue prepares students to thrive in an interconnected world, fostering collaboration across cultures and addressing global challenges like sustainability and inequality.
- 4. Harmonizing Traditional heritage of the nation with global outlook creates a balanced and relatable model of value education.
- 5. Focused resource allocation and curriculum inclusivity reduce educational disparities, promoting equitable access to value-driven education for underserved communities.
- 6. Targeted teacher training enhances educators' capacity to deliver interdisciplinary and values-based education, inspiring students to embody ethical practices and lifelong learning habits.
- 7. Aligning education with **Sustainable Development Goals (SDGs)** instills a sense of responsibility for addressing global issues like climate change, poverty, and social justice, fostering a commitment to sustainable progress.
- 8. Partnerships with NGOs, industries, and local communities connect education with real-world applications, promoting empathy, civic participation, and active citizenship among learners.
- 9. Robust evaluation mechanisms ensure that value-based education remains responsive to societal needs, fostering continuous refinement and long-term impact.

## RECOMMENDATIONS

- 1. **Strengthen Teacher Training**: Develop ongoing programs to equip educators with skills to embed UHV into curricula, emphasizing ethical reasoning, emotional intelligence, and experiential teaching.
- 2. **Embed UHV Across Curricula**: Design inclusive, flexible curricula integrating UHV into all subjects, focusing on ethical decision-making, sustainability, and intercultural dialogue through project-based learning.
- 3. **Foster Community Engagement**: Build partnerships with NGOs, industries, and local communities for experiential learning opportunities, service projects, and fostering social responsibility.
- 4. **Promote Global Citizenship**: Introduce programs for intercultural dialogue, global competence, and international collaborations to prepare students for global challenges.
- 5. **Implement Monitoring Systems**: Use measurable indicators to assess UHV's impact, such as ethical reasoning and sustainability literacy, enabling data-driven refinements.
- 6. **Enhance Access and Inclusivity**: Invest in resource-constrained areas to ensure equitable access and tailor strategies to reflect India's cultural and regional diversity.
- 7. **Leverage Technology**: Use digital platforms for scalable UHV integration, personalized learning, and fostering ethical awareness through AI-driven tools.
- 8. **Advance Research**: Encourage interdisciplinary research in higher education on ethical leadership and sustainability to develop scalable global models.
- 9. **Align with SDGs**: Ensure policies explicitly align with Sustainable Development Goals, promoting sustainability and social justice.
- 10. **Position India Globally**: Showcase India's success in UHV integration, encouraging cross-border collaborations and establishing India as a leader in value-driven education.

## **CONCLUSION**

The National Education Policy (NEP) 2020 offers a transformative framework for integrating Universal



E-ISSN: 2582-2160 • Website: <a href="www.ijfmr.com">www.ijfmr.com</a> • Email: editor@ijfmr.com

Human Values (UHV) into India's education system through its interdisciplinary provisions. By fostering holistic development, ethical reasoning, and social responsibility, the policy aligns with national and global directives, positioning India as a leader in value-driven education. This paper highlights the potential of NEP 2020's interdisciplinary approach to nurture empathetic, socially responsible individuals equipped to address real-world complexities and sustainable development challenges. Effective implementation of these provisions requires continuous efforts in curriculum design, teacher training, and robust monitoring mechanisms. The findings and recommendations provide actionable insights for advancing an interdisciplinary, UHV-driven educational paradigm

#### WAY FORWARD

To enhance NEP 2020's impact, a value driven interdisciplinary approach integrating Universal Human Values (UHV) consistently across all educational levels is crucial. Prioritizing teacher training, strengthening community partnerships, and aligning learning outcomes with sustainable development goals will reinforce values-based learning. Robust monitoring systems and collaborative efforts can drive continuous improvement and position India as a global leader in values-driven education. Future research should explore the long-term impact of interdisciplinary education on ethical development, the effectiveness of teacher training for UHV-based pedagogy, and the role of digital tools in values-driven education. Investigating scalability and global relevance will refine strategies to maximize NEP 2020's transformative potential for a sustainable and inclusive education system.

# **Final Thoughts**

NEP 2020 redefines education in India by emphasizing holistic development, interdisciplinary learning, and values-driven approaches. Its success relies on effective implementation, systemic reforms, and active collaboration among all stakeholders. Continuous research and pilot studies will be crucial in refining UHV integration strategies, ensuring they align with emerging realities and societal requirements while being rooted in India's rich cultural heritage.

# **REFERENCES**

- 1. AICTE (2023) .Universal Human Values for Holistic, Value-based Education: Realising the Aspirations articulated in NEP 2020. AICTE (NC-UHV and NCC-IP) in collaboration with UHV TEAM (uhv.org.in), 2021, revised 2023. Universal Human Values (uhv.org.in)
- Aliakbari, M., & Faraji, E. (2011, October). Basic principles of critical pedagogy. In 2nd international conference on humanities, historical and social sciences IPEDR (Vol. 17, pp. 78-85). <a href="https://www.academia.edu/download/72298481/Basic Principles of Critical Pedagogy20211012-18731-1b0hohh.pdf">https://www.academia.edu/download/72298481/Basic Principles of Critical Pedagogy20211012-18731-1b0hohh.pdf</a>
- 3. Bergman\*, R. (2004). Caring for the ethical ideal: Nel Noddings on moral education. Journal of Moral Education, 33(2), 149-162. <a href="https://www.researchgate.net/profile/Roger-Bergman-2/publication">https://www.researchgate.net/profile/Roger-Bergman-2/publication</a> /248961017

  Caring for the ethical ideal Nel Noddings on moral education/links/613b7a55efc8617fadc2c79e

  /Caring-for-the-ethical-ideal-Nel-Noddings-on-moral-education.pdf
- 4. Balsiger, P.W. (2004). Supra-disciplinary research practices: history, objectives and rationale. in Futures 36:4, 407-421 as cited in Steam In Education: A Literature Review On The Role Of Computational Thinking, Engineering Epistemology And Computational Science. Computational Steam Pedagogy (CSP) SCIENTIFIC CULTURE, Vol. 4, No 2, (2018), pp. 51-72



E-ISSN: 2582-2160 • Website: <a href="www.ijfmr.com">www.ijfmr.com</a> • Email: editor@ijfmr.com

- 5. Chika Ezeanya-Esiobu (2019) Towards Epistemological Plurality in Education across the Global South, In Humanities and Higher Education: Synergies between Science, Technology and Humanities. GNUi (2019) p 120-125. GUNi 2019 First edition: Barcelona, December 2019 ISBN: 978-84-09-14675-8 Coordination: Global University Network for Innovation (GUNi) Open access: www.guninetwork.org.
- 6. Dewey John (1938). Experience and Education. Premium Edition. Kindle e Reader format
- 7. Frodeman, R. (2010). Interdisciplinary research and academic sustainability: Managing knowledge in an age of accountability. In R. Frodeman, J. T. Klein, & C. Mitcham (Eds.), The Oxford Handbook of Interdisciplinarity (pp. 15-30). Oxford: Oxford University Press
- 8. Hawkes, N. (1995). What is values-based education? Retrieved from https://neilhawkes.org https://www.neilhawkes.org/what-is-values-based-education#:~:text=VbE%20empowers%20schools%20and%20other,%2C%20integrity%2C%20honesty%20and%20compassion.&text=It%20is%20an%20approach%20that,education%20in%20one%20particular%20respect.
- 9. Hawkes, J. (2001) The Fourth Pillar Of Sustainability Culture's Essential Role In Public Planning. Jon Hawkes and the Cultural Development Network. <a href="https://www.researchgate.net/profile/Jon\_Hawkes/publication/200029531\_The\_Fourth\_Pillar\_of\_Sustainability\_Culture's\_essential\_role\_in\_public\_planning/links/09e4150bde47d6a5c4000000.pdf">https://www.researchgate.net/profile/Jon\_Hawkes/publication/200029531\_The\_Fourth\_Pillar\_of\_Sustainability\_Culture's\_essential\_role\_in\_public\_planning/links/09e4150bde47d6a5c4000000.pdf</a>
- 10. Holbrook, J., Rannikmäe, M., Soobard, R. (2020). STEAM Education—A Transdisciplinary Teaching and Learning Approach. In: Akpan, B., Kennedy, T.J. (eds) Science Education in Theory and Practice. Springer Texts in Education. Springer, Cham. https://doi.org/10.1007/978-3-030-43620-9\_31
- 11. Hyland, T. (1995). Morality, Work and Employment: towards a values dimension in vocational education and training. Journal of Moral Education, 24(4), 445–456. doi:10.1080/0305724950240406
- 12. McAuliffe, M.(2016).ThePotentialBenefits of Divergent Thinking and Metacognitive Skills in STEAM Learning: A discussion paper. International Journal ofInnovation,CreativityandChange,2(3),71-82. Retrieved from www.ijicc.net
- 13. Miller, J.P., Nigh, K., Binder, M.J., Novak, B. and Crowell, S. eds., 2019. International handbook of holistic education (pp. 1-352). New York, NY: Routledge.
- 14. NEP 2020. (2020). National Education Policy 2020. Ministry of Education, Government of India. https://www.education.gov.in/sites/upload\_files/mhrd/files/NEP\_Final\_English\_0.pdf
- 15. OECD. (2019). OECD Future of Education and Skills 2030: OECD Learning Compass2030. Retrievedfrom <a href="http://www.oecd.org/education/2030-project/teaching-and-learning/skills/">http://www.oecd.org/education/2030-project/teaching-and-learning/skills/</a>
- 16. OECD ( 2019) . Learning Compass 2030. Concept Note. https://www.oecd.org/education/2030-project/teaching-and-learning/learning/learning-compass-2030 /in\_brief\_Learning\_Compass.pdf Downloaded 17.04.2023
- 17. OECD(2019) Transformative\_Competencies\_for\_2030\_concept\_note.pdf (oecd.org)
- 18. UGC (2023) Mulya Pravah 2.0. Inculcation of Human Values and Professional Ethics in Higher Education Institutions .8799370\_Mulya-Parvah\_Guideline.pdf (ugc.gov.in)



E-ISSN: 2582-2160 • Website: <a href="www.ijfmr.com">www.ijfmr.com</a> • Email: editor@ijfmr.com

- 19. United Nations Educational, Scientific and Cultural Organization (UNESCO). (2015). Incheon declaration and SDG4 Education 2030 framework for action. Retrieved from http://unesdoc.unesco.org/images/0022/002256/225660e.pdf
- 20. UNESCO. (2015). Rethinking Education: Towards a Global Common Good? UNESCO.
- 21. UNESCO (2021) .Embracing a culture of lifelong learning: transdisciplinary perspectives on the futures of lifelong learning. https://unesdoc.unesco.org/ark:/48223/pf0000377811
- 22. UNESCO (2023) https://www.timesnownews.com/education/unesco-inaugurates-2022-state-of-the-education-report-for-india-artificial-intelligence-in-education-article-94327440#:~:text=UNESCO%20or%20United%20Nations%20Educational,is%20an%20annually%20flagship%20report. Downloaded on 13.4.23
- 23. Yakman, G. (2019). STEAM education: An overview of creating a model of integrative education. Journal of Education Research and Practice, 5(2), 75-91.