

DEVELOPMENT OF A FRAMEWORK FOR ASSESSING VALUE EDUCATION AT TERTIARY LEVEL

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Development of a Framework for Assessing Value Education at Tertiary Level

by

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NOMENCLATURE

Abbreviations:

AAA	Awareness, Acceptance, Action
ARC	Authenticity, Right Understanding, Clarity
CASEL	The Collaboration for Academic, Social, and Emotional Learning
FDCW	Foundation for Developing Compassion and Wisdom
GOI	Government of India
GVV	Giving Voice to Values
MBSR	Mindfulness based Stress Reduction
MHRD	Ministry of Human Resources Development
NCERT	National Council for Educational Research and Training
NITTTR	National Institute of Technical Teachers' Training and Research
PRME	Principles of Responsible Management Education
SEE	Social Emotional Ethical
VEL 700	Human Values and Technology semester course at IIT-D
VEP	Value Education Program
VEPs	Value Education Programs
UHV&PE	Universal Human Values and Professional Ethics
UNESCO	United Nations Educational Social Cultural Organization

Dedicated to

**My Grandparents, my Parents, and all well-wishers who
inspired me to continue walking on the path of wisdom**

Certificate

The thesis entitled “**Development of a Framework for Assessing Value Education at Tertiary Level**” being submitted by Mr. Raj S. Amonkar to the Indian Institute of Technology, Delhi for the award of the degree of Doctor of Philosophy is a record of original bonafide research work carried out by him. He has worked under our guidance and supervision, and has fulfilled the requirements for the submission of this thesis, which has attained the standard required for the Ph.D. degree of this Institute.

The results presented in this thesis have not been submitted elsewhere for the award of any degree or diploma.



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Abstract

Wise men who have lived values-driven lives have shared their perspectives with humanity that unless men increase in wisdom as much as in knowledge, increase in knowledge will be increase of sorrow. Or in today's technology distracted world, just educating a human in mind but not in morals or values-based clarity can be a disaster. UNESCO's report on Education in 21st Century titled "Learning the Treasure Within" highlights four pillars of education, namely Learning to know, Learning to do, Learning to live with others, and Learning to be. *Learning the Treasure Within* emphasizes that for decades, education curriculum has focused mainly on Learning to Know and Learning to do which are more career or livelihood oriented. The other two neglected pillars (**Learning to live with others** and **Learning to be**) need to be strengthened through the formal system of education. At the level of tertiary education, which is when an individual shapes one's own thinking and analysis independently, inputs towards "Learning to be" dimension are critical for shaping the character and clarity of every student, and in turn, that of a society. The Mission of the National Resource Centre for Value Education in Engineering at IIT Delhi is "To identify, develop and disseminate techniques by which engineering students and practicing engineers can be motivated to imbibe human values and appreciate their impact on technology development, professional ethics and human welfare". In order to embark on such a mission, it is imperative that existing techniques be researched and assessed for their effectiveness in inspiring individuals to imbibe human values and to appreciate their impact on life and profession. It is also essential to define what is meant by Human Values in this context, and qualify the terms such as effectiveness, and arrive at a rigorous and scientific methodology for assessing actual change in the student's present quality of life. The research aims at defining the foundational basis of Human Values in terms of one's present levels of **Authenticity, Right Understanding,**

and **Clarity**, (**ARC**) terms that have emerged from the grounded theory approach and also find mention in the literature. It further aims to develop a framework to assess the effectiveness of value education programs (VEP) at tertiary education students. The framework is built upon the three above value attributes (**ARC**) and three process metrics of **Awareness, Acceptance, and Action (AAA)**. Continuous refinement of one's levels of Awareness, Acceptance, and Action (**AAA**) in the attributes of Authenticity, Right Understanding, and Clarity (**ARC**) can strengthen both the "Learning to be" and "Learning to Live with Others", recognized as two critical pillars of education. This assessment framework is the foundation for developing and testing an assessment tool called "A-ARC of Values". A-ARC tool, administered at pre and post stages of a value education program, can assess/monitor the changes in VEP participant's levels of effectiveness attributes and metrics. The tool has been developed and validated with a limited number of participants for internal consistency and reliability through statistical tools. It has subsequently been applied to assess effectiveness of two VEPs – an 8-day non-residential course and a semester-long course as case studies. While the results are promising, they also have offered newer insights into the process of assessment of VEPs.

Keywords: Assessment Framework, Effectiveness, Value Education, Authenticity, Right Understanding, Clarity, Awareness, Acceptance, Action, Grounded Theory, Focus group.

सार

मूल्यवान जीवन जीने वाले समझदार लोगों की यह सोच रही है कि जब तक मनुष्य अपने ज्ञान की वृद्धि के साथ अपने विवेक को भी पुष्ट नहीं करता, तब तक ज्ञान की वृद्धि उसके दुःख की बढ़ोतरी का ही कारण बनेगी। या यूँ कहा जाए की आज के प्रौद्योगिकी प्रधान युग में मानव जाति को केवल बुद्धि के स्तर पर शिक्षित करना और नैतिक मूल्यों की शिक्षा की अवहेलना करना घोर संकट को निमंत्रण देने के समान है। इक्कीसवीं सदी में शिक्षा पर यूनेस्को की रिपोर्ट "लर्निंग द ट्रेजर विदिन" (आंतरिक निधि का ज्ञान) शिक्षा के चार स्तंभों को उजागर करती है: ज्ञान कैसे प्राप्त किया जाए - इसकी शिक्षा; ज्ञान को क्रियान्वित करने की शिक्षा; मिल-जुल कर रहने की शिक्षा; और मानव की आंतरिक क्षमताओं को विकसित करने की शिक्षा। यह रिपोर्ट इस बात पर ज़ोर देती है कि कई दशकों से, पहले दो स्तंभ ही शिक्षा के पाठ्यक्रम के मुख्य केंद्र रहे हैं। तीसरे और चौथे स्तंभों पर अभी तक ध्यान नहीं दिया गया था, लेकिन अब इन्हें शिक्षा प्रणाली के माध्यम से मज़बूत बनाने की ज़रूरत है।

स्कूल के बाद कॉलेज की शिक्षा के स्तर पर आंतरिक क्षमताओं के विकास की ओर विशेष ध्यान जाना चाहिए क्योंकि इस समय व्यक्ति की स्वतंत्र रूप से सोचने और विश्लेषण करने की क्षमता विकसित होती है। ऐसे समय में यदि उचित शिक्षा के माध्यम से विद्यार्थियों को अंतर्मुखी होकर चौथे स्तंभ की दिशा में बढ़ने के लिए प्रेरित किया जाए तो इसका प्रभाव उनके चरित्र और स्पष्ट रूप से सोचने की क्षमता पर अवश्य पड़ेगा। इन विद्यार्थियों के ज़रिए इस शिक्षा का असर पूरे समाज पर पड़ेगा।

आई.आई.टी. दिल्ली में नेशनल रिसोर्स सेंटर फ़ॉर वैल्यू एजुकेशन इन इंजीनियरिंग (इंजीनियरी में मूल्य शिक्षा का राष्ट्रीय संसाधन केंद्र) का यही लक्ष्य है - "ऐसी तकनीकियों की पहचान, विकास एवं प्रचार जिससे इंजीनियरी के छात्रों को और कार्यशील इंजीनियरों को मानव मूल्यों को आत्मसाध करने के लिए प्रेरित किया जा सके तथा इससे वे पहचान सकें कि कैसे मानव मूल्यों का प्रौद्योगिकी के विकास पर, व्यावसायिक नैतिकता पर, एवं मानवता के कल्याण पर कितना प्रभाव पड़ता है।"

इस लक्ष्य की प्राप्ति के लिए यह आवश्यक है कि मानव मूल्यों के प्रति विद्यार्थियों और अन्य लोगों को संवेदनशील बनाने के लिए जो भी विधियाँ उपलब्ध हैं उनका शोध के माध्यम से मूल्यांकन किया जाए कि वे

कितनी प्रभावशाली हैं। इस संदर्भ में मानव मूल्यों की स्पष्ट परिभाषा देना आवश्यक है। इन विधियों के माध्यम से विद्यार्थियों के जीवन में आए सकारात्मक परिवर्तन का वैज्ञानिक रूप से आकलन भी ज़रूरी है।

इस शोध का उद्देश्य मानवीय मूल्यों के मूलभूत आधार को प्रामाणिकता, सही समझ और स्पष्टता (ए.आर.सी.) के वर्तमान स्तरों के संदर्भ में परिभाषित करना है जो ग्राउंडेड सिद्धांत के माध्यम से निकले हैं और साहित्य में भी उनका उल्लेख है। इस शोध में कॉलेज के स्तर पर मूल्य शिक्षा कार्यक्रमों की प्रभावशीलता का आकलन करने के लिए एक रूपरेखा तैयार की गई है। यह रूपरेखा मूल्य शिक्षा से प्रभावित होने वाले उपरोक्त तीन गुणों पर आधारित है। इन गुणों में विकास के तीन मापदंड चुने गए हैं - जागरुकता, स्वीकृति और आचरण (ए.ए.ए.)। मूल्य शिक्षा का उद्देश्य यह है कि प्रामाणिकता, सही समझ और स्पष्टता - इन तीनों गुणों की जागरुकता, स्वीकृति तथा उनके आचरण में वृद्धि हो।

इस रूपरेखा के आधार पर "ए.आर.सी. ऑफ़ वैल्यूज़" नामक एक मूल्यांकन की विधि बनाई गई है। मूल्य शिक्षा कार्यक्रमों के पूर्व एवं पश्चात इस विधि के प्रयोग से प्रतिभागियों के गुणों (ए.आर.सी.) में आए बदलाव को उपरोक्त मापदंड (ए.ए.ए.) के अनुसार मापा जा सकता है। विधि के आंतरिक तालमेल एवं विश्वसनीयता को जाँचने के लिए सीमित संख्या में प्रतिभागियों के साथ इसका प्रयोग किया गया है, तथा स्टैटिस्टिक्स के माध्यम से इसकी वैधता को जताया गया है।

इसके पश्चात इस विधि का प्रयोग एक आठ दिन के गैर-आवासीय शिविर में, तथा एक चार महीने के पाठ्यक्रम में भी किया गया है। इनके परिणाम संतोषजनक हैं, और साथ ही इस शोध से मूल्य शिक्षा कार्यक्रमों के आकलन के विषय में नए आयाम भी उभर के आए हैं।