

Indian Higher Education Practices - An approach

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ABSTRACT: Science must act coherently. Science educators teaching evolutionary theory simultaneously consider the domains- conceptual, epistemic, worldview/religious, social and cultural. Students' conceptual ecology facilitate or impede the learning process. The concepts- intention, meaning, value, are central to an understanding of human action and a grasp of them entails a language comprehension of the individuals and the society. Research and teaching science are being turned into fields of business and economy with the aim of circular accumulation of material and symbolic capital, complemented with the logic of distinction. Education is an investment in a nation's future. Teachers approach students in the format: identify, isolate and improve. Single-minded self driven approach gives results.

Keywords: education, science, epistemology, creativity

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I. INTRODUCTION and LITERATURE SURVEY:

The Knowledge Society' is the most universally adopted growing force in politics, economies and social organizations; with evidence based approaches [1]. Science must act coherently [1].The 'logic of scientific discovery' says that knowledge is provisional [1].Kuhn says that two consequences follow: one that science seen as a social phenomenon, a permeable institution, and the second that science's claim to be a distinctive and pre-eminent form of knowledge is undermined[1].The 'scientific community' is a complex nexus of problem-focused, discipline centred and wider networks of elites able to perpetuate themselves through interaction between differential allocation of resources, differential capacity to recruit the best talent, and a privileged informal communication system[1]. The concepts- intention, meaning, value, are central to an understanding of human action and a grasp of them entails a language comprehension of the individuals and the society [1]. Internalist theories of science are a unified, secretive, self-regulated, unequivocally authoritative system of thought and a social organisation impermeable to external norms and influences[1]. Evolutionary theory is one of the greatest scientific achievements in history of science[2].Science educators teaching evolutionary theory simultaneously consider the domains- conceptual, epistemic, worldview/religious, social and cultural[2]. Student mis-conceptions about evolutionary theory are that evolutionary change is adaptive, progressive, teleological (goal-directed), equated with event-like ontology and is a form of atheism[2]. Students' conceptual ecology facilitate or impede the learning process[2].The epistemic domain is examined at two levels- students' personal epistemology and students' epistemological beliefs about science[2].Most researchers organise epistemology into: dualism, multiplicity, relativism, and commitment to relativism[2].In dualism stage, students think that knowledge is objective and the instructor is the representative of authority[2].Multiplicity stage students question the dichotomous view of the world when encountered with conflicting views of different authorities on the same issue[2]. In relativity stage, students think that there are few issues to be known for sure and the authority becomes open for debate and criticism[2]. Students find relativism disorienting in the stage commitment to relativism, and they continue to seek other people's positions [2].Nature of science(NOS) refers to epistemology of science i.e. values and beliefs specific to the scientific knowledge and its development[2].Philosophers of science, historians of science, scientists and science educators, have no single definition of NOS[2].NOS ideas include empirically based, tentative, subjective, inferential, socially and culturally embedded conceptions of scientific knowledge, and depends upon human imagination and creativity[2]. Atheism and theism are the two major worldviews teaching evolutionary theory[2].Atheism says, matters exists and that is all, there is no acknowledgement of Gods; and ethics are constructed by humans[2]. According to theism, God exists and created the universe and the living things; there is life after death; and ethics originate from God [2].Epistemologically, religion and science are non-overlapping magisteria, but pedagogically overlap in a student's mind[2]. About forty percent working scientists have religious beliefs[2]. A concept will be difficult to be included in a school curriculum, with little leverage in the cultural milieu[2]. Science instruction happens smoothly when the school science culture is compatible with the students' social and cultural values[2].In science, oligopoly structures are the enemies of innovations, because scientific knowledge progress depends upon a variety of trails for success[3].The new paradigm governing research- extrinsic incentives, destroys intrinsic motivation, the very precondition of creative work[3].The logic

of doing science is subjected to the economic logic of overbidding competitors and ousting them from the market[3].The economic paradigm of competition is more determined for shifts in power than by gains in advancing scientific knowledge and economic efficiency[3].Robert K .Merton says, science structure claim validity: a)universalism on justification of knowledge b) communism in sharing knowledge c) organised scepticism in the attitude to knowledge d)disinterestedness in knowledge generation [3].Universities turned into enterprises struggling for global rankings in the process of trans-nationalization of the academic field[3].The academic field actors struggling for recognition have symbolic capital viz economic, social and cultural capital [3]. Economic capital is the money an institution invests in research [3].Also, the number of academic staff viz life sciences, natural sciences and engineering sciences, producing economically useful knowledge could be interpreted as economic capital via tuition fees turned into symbolic capital[3]. Humanities represent cultural capital in cultural heritage and interpretive knowledge [3]. The social sciences are located between economic and cultural capital[3].In a knowledge society, economic capital gains in value and cultural capital loses value[3]. Social capital is the inclusion of a person or institution in influential networks [3]. Academic capitalism is a power game fuelled by the turn away from knowledge production according to mode 1,focusing on basic research separated from demands for its practical and profitable utilization, and towards knowledge production according to mode 2 in the ‘triple helix’ of applied research at the intersection of the top 500 rankings of universities research worldwide, industrial utilization, and governmental promotion of technological advancement[3].At this intersection, the production of truth is closely to linked to commercial and political interests satisfaction[3].Research and teaching science are being turned into fields of business and economy with the aim of circular accumulation of material and symbolic capital, complemented with the logic of distinction [3]. The strategic science economization of research results for patents, are the revenues of universities for capital formation [3]. Always, the outside interests rooted in the ruling knowledge and thought fuel the search for knowledge and education [3]. The quality assurance instruments change good teaching:”The drift towards teaching delivery philosophies, supported by hard managerial assumptions, transform teaching from a relationship to transaction auditable in isolation”[3].

II. METHODOLOGY:

Education is an investment in a nation’s future [4].Teachers approach students in the format: identify, isolate and improve [4]. The duty of society-public school system, provide educational opportunity for all children appropriate to their individual abilities and aptitudes [4]. Being intellectually more able is likely to lead to success by itself as cream always rises to the top[4]. A deliberate intention to favour the ‘haves’ at the expense of ‘havenots’, is a reflection of the political/economic forces at work in the contemporary capitalist societies [4]. Some teachers perceive themselves as inadequate to teach hyper-intelligent, all-knowing computers whom they never see [4].Teachers with highest abilities and accompanying performance, tend to accept and understand the genius student while teachers with lower ability feel threatened and hostile towards the genius student [4]. Atleast 5 percent population must work at a high conceptualization level, for a technologically complex society to continuously function, with many students of high ability working below capacity [4]. The development of intelligence among students depends upon the exposure to an environment containing novelty, for cognitive growth [4].A student is termed, ‘gifted’, if, ‘any ward outstanding in either a general or specific ability, in a relatively broad or narrow field of endeavour(2-6 %)’[4]. Creativity is the ability to express novel and useful ideas, for applying mental power to deal with practical problems [4]. According to ‘evolving systems’, human beings organize themselves into three psychological systems: knowledge, affect and purpose [4]. Unusually able individuals are those in whom: well organized knowledge capable of being called upon, flexibly filed and indexed etc, permitting intelligent and creative behaviour [4]. Gestalt Psychology says, intelligence must have four properties- complexity, plasticity, totality and fluency; complexity brings the elements of a set of information into relationship with eachother; plasticity is about changing existing cognitive structures; totality is relating new material to existing mental structures; fluency is moving from one idea to another [4].Intelligence is convergent thinking while creativity is divergent thinking [4]. Universities or university like institutions registered total to1113,colleges 43,796 and standalone institutions11,296 , implement the following methods[5].

Practice analytical memory

Subjects work together to find research.

Society problems’ solutions formulated in laboratories.

Data science makes working standards in metrology.

Civil services recommended textbooks in classroom teaching.

A question from previous years gate papers could be solved by students during the time of attendance.

Daily read a textbook for the page count of fifty or for a time of three hours. This helps reading faster.

Analyse all the curriculum subjects into space, the ever evolving engineering stream.

Btech curriculum project formula. Any product analysed in the subjects sustainability and circular economy for the principles and concepts of industrial engineering.

Literature survey. Textbooks end-of-chapter references lead to further references.

After mtech, download any specialization textbooks and read them for abreast knowledge.

Strategic approach to competitive exams.

For example, Gate. Prepare numerical answer type questions ,for no negative marks. Prepare mathematics in engineering classroom subject teaching. Prepare quantitative aptitude questions. Now the two mark questions and one mark questions: selective subjects preparation in summer vacation before the final year; prepare second and third year subjects end-of-chapter questions for thorough conceptual clarity.

Also, all competitive exams preparation falls under the gamut of engineering services exam. Prepare for this one exam and all exams preparation is done automatically. In the first year of engineering, prepare for general studies in the weekends. These weekends effort saves the two years time needed for the preparation after btech.

Management is all practice, not bookish knowledge.

III. CONCLUSION:

Students learn effective time management. Students evolve their learning methods. Students always think productivity in every sphere of life. Youth stop bothering body-shopping in the name of overseas careers. Graduates bother achievements instead of counting salaries. Graduates experiment to enterpren research and find new avenues to life. Unparalled efforts achieve extra-ordinary results. Single-minded self driven approach gives results.

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