

## **Pragmatic-Prerequisites of Cognitive Psychological Aspects for Contemporary Learners in Present Academia - An Empirical View**

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This paper brings out the importance of pragmatic orientation in the learning processes among the learner community in the contemporary academia. It elucidates and throws light on the prominence of the cognitive psychological approaches in achieving real education. It also identifies the lacuna of perceptive and imperceptive teaching learning methods which are prevailing in the internet driven world. This paper brings out the variation between the cognitive and in cognitive ways of learning and tries to showcase some of the ideologies to keep up the spirit of real education to trigger the inbuilt skills of the learner.

This paper analyses the cognitive psychometric aspects, their importance in the selection of courses, and their limitations in schools and colleges in the computer driven world due to various technical reasons, which are discussed in the forthcoming paragraphs. It also throws light on the practicality of these elements as well as the possibility of these aspects in the curriculum and its implementation. In fact, all these aspects are the need of the hour for acquiring the practical oriented education than the rote learning. Thus, this paper is engrossed with the cognitive psychological attributes and their role in the learning process, their influence among the peer groups, and in fact on every denizen in the society.

At the end, this paper illuminates on the need of the hour for enhancing and applying of behavioral attributes and thought processes. It gives a suggestion how these Cognitive Psychological aspects aptly to be adorned in the curriculum so as to observe the pertinent teaching methodologies by focusing on the syllabi with required inputs as remedial measures to put an end to the rote learning education.

**Key words:** Sensory Stimulation, Overt expression of behavior, Compare behaviorism, Perception, Thinking, Learning, Memory, Formation, Reasoning, Judgment, Decision making, Problem solving & Language processing.

### **Full Paper:**

*Studies serve for delight, for ornament, and for ability-Francis Bacon*

Education gives Knowledge and Knowledge gives Wisdom. Knowledge without Wisdom is like taking medicine without knowing the cause of the disease. The awareness

that a match stick can draw fire is called Knowledge, whereas, if the same match stick when lit at a gas station demolishes everything is treated as wisdom. Hence, wisdom is an amalgamation of knowledge and cognitive psychological process. As we have witnessed over the ages, the transformation of man from uncivilized to civilized is due to the advent of education but still it is wisdom that makes a man a perfect being. In the process of education and educating the man, the methodologies and methods in teaching learning process have tremendously changed from curriculum to curriculum. However, the root cause and purpose of education is static though the methods are dynamic from time to time. It is a known fact that though technology enhanced the teaching and learning strategies but still the hidden purpose of education remained the same, which should be recorded in every mind.

Unfortunately, the dynamic mechanisms in education system are beating around the bush without triggering the imbibed skills and talents of the contemporary learners' community. In contrast, the mechanisms are not associated with the cognitive dexterities of the learner and instead they do not match with the skills due to many reasons. Hence, this paper questions and emphasizes directly, whether the contemporary education system (the academic stream or the methodologies) is really coping with the intellectuality of the learner. If it matches, how come all the learners become soft ware engineers and doctors exclusively and why they are not into other professions which are highlighted and recognized.

If we make a thorough study of the syllabi of kindergarten to SSC, all the subjects like humanities, Social Sciences, Mathematics and aptitude are taught. A learner has a choice to select or to choose any one of the streams according to his interest only after the completion of SSC. For example, if a student is more interested in Maths, than Biology, then he can prefer MPC (Math, Physics, Chemistry) stream to BiPC (Biology, Physics, Chemistry), likewise if a student is interested in accounts, he can opt for CEC, candidates interested in academics, based on history can choose HEC(History, Economics, Commerce), Political science aspirants can go for HEP(History, Economics, Political Science), Special English for literature aspirants who could chose HSC and so on. But the recent statistics show a diminishing rate and percentage of the student's ratio in other groups compared to the Engineering and Doctor's stream that is BiPC and MPC. Along with the above mentioned courses some of the vocation courses are mentioned in the given table.

### **LIST OF TWO YEAR VOCATIONAL COURSES**

Sl. No.	Course Code.	Name of the Course
<b>Agricultural Courses (Category – II)</b>		
1	101	Crop Production and Management
2	102	Dairying
3	103	Fisheries
4	104	Sericulture
<b>Business &amp; Commerce Course (Category – IV)</b>		
5	201	Accounting and Taxation
6	202	Marketing & Salesmanship
7	203	Office Assistant ship
8	204	Banking & Financial Services
9	205	Insurance and Marketing
<b>Engineering &amp; Technology Courses (Category – I)</b>		
10	301	Automobile Engineering Technician
11	302	Construction Technology
12	303	Computer Science and Engineering
13	304	Electronics Engineering Technician
14	305	Electrical Wiring & Servicing of Electrical Appliances
15	306	Rural Engineering Technician
16	307	Water Supply & Sanitary Engineering
17	308	DTP & Printing Technology
<b>Home Science Courses (Category – III)</b>		
18	401	Commercial Garment Designing & Making
19	402	Fashion Garment Making
20	403	Hotel operations
21	404	Pre – School Teacher Training
<b>Humanities &amp; Other Courses (Category – VI)</b>		
22	501	Computer Graphics & Animation
23	502	Tourism and Travel Technique
<b>Paramedical Courses (Category – V)</b>		
24	603	Medical Lab Technician

25	609	Multipurpose Health Worker (F)
26	605	Ophthalmic Technician
27	606	Physiotherapy
<b>Bridge Courses ( Theory)</b>		
1	54	Mathematics
2	55	Physical Sciences (Physics & Chemistry)
3	56	Biological Sciences (Botany & Zoology)
<b>Bridge Courses (Practicals )</b>		
1	57	Physical Sciences (Physics & Chemistry)
2	58	Biological Sciences (Botany & Zoology)

The below given table gives the data pertaining to the imbalance in the different courses to the highest level of education in various branches during the year 2014-15.

**Table: 6B- Percentage Enrolment in various Disciplines at Ph.D & Post Graduate level in Higher Education 2014-15**

Discipline	Ph.D.	Post Graduate
Agriculture & Allied	3.84	0.58
Commerce	3.09	9.61
Engineering & Technology	23.42	7.60
Foreign Language	2.58	4.86
Home Science	0.51	0.25
Indian Language	5.01	8.99
IT & Computer	1.69	7.48
Law	0.99	0.67
Management	5.31	15.70
Medical Science	3.99	3.06
Science	25.88	12.51
Social Science	12.13	17.35
Others	11.56	11.34

**Data Source:** Ministry of Human Resource Development, Government of India (website: <http://mhrd.gov.in/statist>)

The above tabular form gives a clear cut indication of how a special emphasis has been laid on a few courses like MPC so as to become engineers and BiPc so as to become doctors. We have already referred to that in our argument above.

**Table: 6C- Percentage Enrolment in various Disciplines at Under Graduate level in Higher Education 2014-15**

<b>Discipline</b>	<b>Under Graduate</b>
Arts/ Humanities/ Social Sciences	40.24
Engineering & Technology	15.89
Science	15.38
Commerce	13.98
Education	3.25
Medical Science	3.05
IT & Computer	2.57
Management	1.93
Law	1.13
Agriculture	0.61
Oriental Learning	0.39
Others	1.58

**Data Source:** Ministry of Human Resource Development, Government of India (website: <http://mhrd.gov.in/statist>)

Only four of the above mentioned branches are extremely highlighted and given more importance rather than other courses. In contrast, the rest of the courses are much sought after compared to some of the courses which are left untouched. Owing to this criteria, a lot of economical and societal imbalance is created. This is one of the reasons why our country still remains as a developing country for several decades.

From the above statistical information it is transparent that very few streams are given the highest priority and other streams are highly neglected. It has been observed that some of the educational institutions have deleted some courses owing to the zero registrations in those specific courses. It does not mean that all the learners are interested only in some subjects, there may be a few who really aspired to do that course but keeping in view the present scenario, majority of the learners seek courses which have a greater demand and are lucrative with regards to high income, good reputation, and which provide a luxurious life style along with prestige too. These reasons are mainly based on social, economical, financial, political, cultural, factual and familial bonding.

Irrespective of these reasons, it is a known fact that the learners are opting for the courses based on the earnings but not for learning. That is a major lacuna in the learning process in the present scenario, which we can see in some of the literary excerpts taken from *Five Point Some one* of Chetan Bhagat, where the three protagonists have different aspirations in their lives but they are forcefully made to join in IIT so as to become engineers. Hari, Ryan and Alok are three friends among them, one is interested in photography where his parents do not agree for that as that profession does not fetch money and prestige. The other one wanted to get a job by any means. He knows that he is not that much clever to cope with the syllabus of Engineering, however, his parents pressurize him to study only engineering so that he could earn more money through dowry as an Engineer as other professions fetch less dowry comparatively.. The protagonist is interested in practical oriented education. Though he is interested in studying engineering, he is reluctant in rote learning but is fond of pragmatic methodology in studies. Out of the three Alok finally goes to his interesting subject of taking photographs and remaking films, the second champ gets a job with the help of his friends who lift him up by giving extra care and tuition classes and the protagonists prove his theory of learning by doing and becomes a world famous scientist of challenging the age old learning method of by hearting. Hence, this literary extract resembles the real life scenario of a student and the lacuna in between the skills of a learner and the selection of the courses based on other parameters which result in a complete failure of the education system and in the imbalance of socio-economical livelihood.

However, I am glad to mention some of the literary texts which act as eye openers to the parents in selecting the courses based on the interest and cognitive perception of the learner. At this juncture, I would like to give an example from the contemporary writer Chetan Bhagat's *Revolution 2020*, where the writer show cased and streamlined the age old statement, that is a boy must be an engineer and a girl must be a doctor. Bhagat completely discards this thought process and gives a remedial method through the narration of the protagonist Raghava, who completed his IIT in Benaras Hindu University, though he was interested in journalism but his parents had forced him to finish Engineering. But after his B.tech, he successfully fulfills his desire by doing his journalism course and becomes a successful journalist and fights against the social evils like corruption, red-tapism and Save Ganga River. In his rebellious path against the

social evils, he faces many hurdles but ultimately tastes success in his select field by becoming an MLA though he was a journalist.

In fact, this literary extract is an eye opener to every parent, who intentionally wanted to make his ward either a doctor or an engineer. The same novel tells about another character named Gopal, who attempts IIT entrance many times but fails to get a good rank in entrance. He even takes coaching at Kota by spending a lot of money though they were not financially sound, but only because of his father's force he attempts the entrance for getting a good rank in order to finish engineering against his interest and will. He forcibly attempts IIT entrance and in the process, the sudden demise of his father weakens him financially, loses relatives, land occupation and above all faces an identity crisis which makes him select a wrong track. He approaches a politician named Mr.Shukla, with whose help he manage to usurp forcefully his ancestral land from his relatives and constructs an engineering college by oiling the palms of many officers in order to get permissions which are typical of the contemporary education scenario.

With the above analysis, my question is how the inbuilt and inborn skills are exhibited if the scenario continues like this, and how the real skills are going to be showcased and elevated in various streams to balance the socio-economical factors. With this particular point of view, how the cognitive experimental methodologies in the field of education, help to overcome the above problems with respect to identifying the potentials of the learners and selection of courses accordingly irrespective of the any sort of external influences.

### **How the Cognitive Experimental Study helps to overcome this rote learning system :**

Sensory stimulation:

Compare behaviorism:

Perception:

Thinking:

Learning:

Memory:

Formation:

Reasoning:

Judgment:

Decision making:

Problem solving:

Language processing.

According to the cognitive analysis, the elements like Sensory stimulation theory, overt expression of behavior, compare behaviorism, Perception, Thinking, Learning, Memory, Formation, reasoning, Judgment, Decision Making, Problem solving and Language processing. Hence, my study focuses and highlights how these cognitive elements must match with the course they select after the +2 education.

### **Sensory stimulation theory:**

This can be thought of as psychological stimulation, which is a stimulus affecting a person's thinking and feeling process which helps the learning community to learn and develop. Hence, the role of parents and teachers is to identify this key point and while stimulating, the learner should keep in mind the inbuilt skill and interest of the learner than the socio-economic influences.

### **Perception:**

It means the way in which something is regarded, understood, or interpreted. Hence, for every learner's life is understood and interpreted with some of the learning objects with respect to subjects it may be with respect to the above mentioned perceptions of understanding and interpreting. I would like to quote an example in this aspect. If a learner, based on his perception considers that English language plays vital role in everyday life and therefore the language must be learnt thoroughly in a communicative manner so as to speak in that language fluently and accurately then he will be alert in language class and learn with hand on experience mode. In contrast if he does not perceive this, the learner may not be attentive in the language class or he may not pay attention to the class.

Hence, my point of view is that if the learners are given the opportunity to perceive on various subjects like language, math's, aptitude, reasoning science, social studies, arts related subject the learner will be able to identify and select the course according to his interest and also based on his perceptions too.



**Thinking:**

It is the process of considering or reasoning about something. It is also said to be using thought or rational judgment; Hence, the learner must be given ample opportunities to think about the select courses of study and analyze it according to his thought process but not based on the socio and economic factors.

**Learning :**

Learning is nothing but the process of the acquisition of knowledge or skills through study, experience, or in the process of being taught. Hence, the learners must be given more opportunity to learn rather than to be taught as the learning comes through experience. In this connection, the teachers must trigger the ideas and then leave the learners to explore themselves with innumerable thoughts and experiments. That is a miracle which happens in the learning process. Hence, learning must be given a lion's share rather than giving importance to rote up system.

**Formation:**

Formation is nothing but the action of forming or process of being formed through ideas. Hence, the learners must be given the choice to form and collaborate their ideas into action. This sort of Formation process must be implemented among the peers in learning process so that the ideas that trigger through brain storming lead to thought provoking process and acts as stimuli to the innovative ideologies.

**Reasoning:**

It is the action of thinking of something in a logical or a sensible way. Hence, the learner should be in such a position to think logically and use a sensible methodology. Where the learner will be in a position to take decisions, to solve problems, deal making, Deal with Difficult Situations, Deal with Office Politics, Deal with Difficult People, Decision Making, Dedicated, Desire to Learn Disability, Awareness of Dispute Resolution, Diversity Awareness as Effective Communicator , Emotion Management so as to have emotional intelligence.

**Conclusions:**

From the above drawn inferences we are able to identify the lacunas bifurcating the learners choosing courses which are lucrative and rest are not lucrative as has been evidenced in the above mentioned data. Hence, this Cognitive Theory analysis with the help of cognitive tools in teacher learning process, bridge the gulf of difference and establish a concrete educational

system. The cognitive learning process leads to a society based on intellectual equality which balances all the learners of different levels so as to make a utopian educational society.