



THE DEVELOPMENT OF SELF OF ENGINEERING STUDENTS IN LANGUAGE LAB

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ABSTRACT

The once flourished field of engineering in India saw its major downfall when the engineering colleges and institutions increased and the quality of education became stagnant. As a result of this, the rate of unemployment has reached its peak in India. The employers have constantly reminded and reprimanded the education institutes for their production of poor-quality undergraduate engineers. The engineers are unskilled and do not have the proper knowledge to express their aspirations in life. The paper conceptualizes the need for an education system to make the students understand their 'self'. The paper also analyses the need for understanding self in engineering students and how it affects the student's performance and development as an individual.

Keywords: Engineers, self, self-concept, self-image, ideal self, unemployment, and suicide.

Introduction

The field of engineering in India is a remarkable podium where millions of engineers are created annually and sent to the market for commercialization. The engineering students however are in a more dishevelled state in the present era. The outdated syllabus, lack of proper lecturers, and unemployment have created and articulated a claustrophobic experience for

engineering graduates. This severity also has led to a high suicide rate among engineering students in India. For a long time, employers and experts have constantly reminded educationists of the need for an updated syllabus that focuses on the skill development, improvement in mental ability, and stability of engineering students. The students lack proper outdoor knowledge and are constantly jammed between invalid

examinations and scores. The problem of unemployment of engineering students is mostly based on governments and poor grades of engineering students. It is time and a necessity to analyze and activate a change in the education system. At present the education system in the field of engineering is keen on producing graduates who have achieved high marks but lack the basic skill to excel in any interview. The education system should allocate necessary channels for the students to discover themselves. This is possible when every institution enables the students to identify their 'self' to overcome the negativities that stand as hurdles in their path to success in self. Every individual must understand 'self' to become a civilized social being. Education institutes that claim to produce graduates should also take up the responsibility to develop a refined individual who is aware of himself/herself.

The Present Field of Engineering

The nation had its humble development in the field of engineering in the post-independence era. The field of engineering found tremendous growth from 1990 onwards with the flourishing progress of the USA in computer technology. R.N. Bhavnagar comments: "Thus during the last few years, the world has seen a large number of computer hardware and software engineers from India." Right from the beginning of the prospering growth of the

field of engineering experts have realised and also constantly reminded the educationists - of the need for quality education. At the beginning of the 21st century, there were 662 urban and rural colleges of engineering and 1172 technical institutions compressing a student strength of 357,000. This road of development however promised "to facilitate and organize exchange of academics in the field of engineering education was a milestone in the direction of developing highly trained engineers with global exposure, that led to building up of present citadels of engineering education." (Bhargava, 78)

In the present scenario, this vision of success and progress has come to a stunned silence in the field of engineering. Presently the country is manufacturing about 11-13 million undergraduate engineers annually. Educationists, experts, and economists are ringing the red alert, questioning the need for so many engineers in the country. The engineers produced by the education institutions lack the proper knowledge to pursue a career in engineering. Alok Choudhary comments: "The survey carried out by Aspiring Minds revealed that only 7% of engineering graduates in India are employed... only 3% of engineers in India have the suitable skills required to get a job in the core sectors of engineering." (Choudhary, YKA)



Experts and critics comment that this major dishevelled condition of the country is due to improper, unorganized curriculum and unskilled teachers offered by engineering institutions. “The lack of quality education in the vast majority of engineering colleges mushrooming across the country is to blame for this dismal state.” (Sujatha) The engineering institutions have ignored the dynamic nature of the engineering field of study. It has failed to adapt to the constant technological improvements and advancement in the syllabi and classroom. Gautam Biswas, director at IIT-Guwahati comments that several colleges and universities have failed miserably to improve their education standard. He also adds that the students often do not possess access to systematic curricula, essential laboratory infrastructures, or even good teachers.

The State of Unemployability

Due to the poor quality of education, the unemployment rate of engineering graduates has reached its peak. “In 2003, the government formed the UR Rao Committee that flagged a future glut of graduates. It found technical education was expanding rapidly which could not be sustained in the long run as there wasn’t as much demand for as supply of engineering students.” (ET Online) The statement has been vindicated fifteen years later.

The Indian engineering students’ skills are subdued and compressed. They are coached and then taught in the classrooms to attain maximum scores in examinations. This has enhanced the students’ inability to possess reliable communication skills. “A study found that Russian and Chinese engineering students were better than those in India. It also adds that Indian students’ high-order thinking levels are considerably low in comparison to Chinese and Russian.” (ET Online) The colleges train the students more on the shabby, outdated syllabus that no longer enables the students to build a view beyond textbook learning and exam scores. Jayaprakash Gandhi, an analyst and career consultant remarks: “We are overproducing engineers who do not have the right skills needed for the industry.”

Several reasons lurk behind the preminent rate of unemployability of engineering graduates in India: outdated learning methods, less concentration on the practical mode of teaching, examination pattern or culture, less exposure to vibrant availability of innovative learning resources, choice of career based on acquired marks and not according to the field of interest or desire of the students. Dr. Anand Samuel states that “the selection of a branch of study is based on the following: 1. the most sought-after branch in counselling 2. The branch has good opportunities as seen by the

previous year's placements 3. Parental pressure and 4. Peer pressure.” Throughout these criteria, the student is not given any opportunity to study his/her aptitude, field of interest, and dreams. Once they are enrolled in engineering colleges, even without their awareness, they are set in the rat race. They are pushed and often warned about being surpassed by brilliant students.

Mental Pressure and its Results

These aspects show mental pressure and often result in leading the students to acute depression. In the past decade, the suicide rate among Indian engineering students has gone high. It is estimated that about 40,000 students have committed suicide in the past 5 years. Experts record that it is in India's most advanced states: Tamil Nadu and Maharashtra the high rate of suicide have been notified. In determining the factors that push youngsters to extremes, educationists and psychologists state the following: unhappy families, excessive academic stress, and failure in romantic relationships. Regarding the suicide factor, Saldana comments “The popular perception is that failing exams and inability to cope with academics is the primary reason for student suicide.” She also adds: “This is rooted in a sense of helplessness and extreme frustration.” However, experts do not agree that failure in the examination is

the single factor causing a drastic increase in the suicide rate of engineering students.

As mentioned in YouDost, BlogSpot “Forced career choices, fear of failure and the general stigma attached to mental distress often push students towards the extreme step.” ([Bhattacharya/Quartz India](#)) The pressure that is invested on each engineering student is considerably high. They are meant to fulfill the dreams and desires of the family. This pressure often results in acute depression which goes unheard and often considerably ignored. Samanta Deshmane, a Sociologist states “Society is transforming and people are finding it difficult to cope with it, whether it is apparent or otherwise. One of the oldest definitions of our species says that we are social animals, but today we are less social and more individualistic. Apart from things like caste and religion, which also unite people at a superficial level, people are forced to be competitive and worry only about themselves, often depriving several others of a cushion.”

The Need for Understanding Self

To overcome the stress and understand the real fear or problem, every individual must comprehend their ‘self’. Understanding self enables the individual to analyze his/her experiences, thereby identifying his/her part in the collective group and empowering oneself to work for



the betterment of one another. In the case of students, understanding self helps them to explore their potential, strengths, mental stability, and weaknesses.

The engineering students, however, are not allowed to reflect on themselves. Their concept of self is often predetermined and conceptualized by their parents, trainers, and fellow students. The students' aspirations, dreams, ambitions, and desires are frequently unnoticed. Their eagerness to gain higher-order thinking is curtailed by colleges that focus only on exam scores and bookish knowledge. Many times, in the history of undergraduate engineering education the student is deracinated from their society. He/she is then planted in a field where they are expected to grow, flourish, and prosper only through feeding on textbooks. This restrains their vision to pursue higher in life. As experts point out some students thorough in subject knowledge lack in communication skills and problem solving techniques. They cannot analyze a concept and enhance themselves with updated data and information.

The development of these skills and techniques is very less likely to be performed in core subject classrooms. To overcome these issues reputed universities such as IIT, IISc, VIT, and Amity have established language labs. Language labs are distinctive from regular classrooms. In the

language lab, the students are not instilled with regular grammar rules coerced with unending grammar exercises. They are offered exercises and tasks that enable them to analyze their self and to communicate better.

Understanding the concept of self

Establishing the necessity for identifying one's concept of self is never too easy. Self in itself is complex. The concept of self is thus defined as "an overarching idea we have about who we are – physically, emotionally, socially, spiritually and in terms of any other aspects that make up who we are." (Neill, 2005) The self is complex as there is no one established or universally identified self. Self is never an element in a person but rather an establishment of a person's inner thought that often undergoes changes based on external influences. 'Self' varies according to each person. Each person is unique and so is their establishment of self. Roy Baumeister defines the self-concept as "the individual's belief about himself or herself, including the person's attributes and who and what the self is."

Self is considered as the reflection of a person. Rosenberg defines self-concept as "... the totality of an individual's thoughts and feelings having reference to himself as an object." This self-concept acts as the core constructive factor for several other forms of self: self-esteem, self-image, self-efficacy,

and self-awareness. Lewis, a psychologist suggests the development of self is based on two aspects: the existential self and the categorical self. According to Lewis, the existential self provides a person with the basic idea of their existence; the way they identify themselves as separate beings isolated from the society they belong to. It is “the sense of being separate and distinct from others and the awareness of the constancy of the self.”(Bee, 1992) every child on earth identifies themselves as a separate being or entity from their surrounding humans. They realize at a very early stage that they exist over time and space. The categorical self explains a child’s awareness of him/her as a separate entity in the world. They recognize themselves as an object with certain attributed properties such as age, gender, size, and skill. The categorical self later incorporates “internal psychological traits, comparative evaluations and how others see them.” (Simply Psychology)

The analysis of self-empowers every individual to identify themselves and acknowledge their role in society. These analyses are often not carried out in core subject class periods. The students in the core subject class hour are often set to listen and comprehend the concepts of their branch of study. It does not facilitate the analysis of self nor enable the student to identify their

social role. However, the facilitations are provided in the language lab.

The language lab is established to enhance the communicative competence and proficiency of the students. The students in the language lab are expedited with an environment where they not only improve their communication competency but also learn to analyze themselves.

Carl Rogers in his research on the concept of self provides 2 consecutive attributes of self:

- Self-image (How a person sees himself/herself)
- Self-esteem (It collaborates a degree of evaluation that includes both positive and negative views of oneself)
- Ideal-self (This corresponds to the aspiration of an individual of how she/he wants to be in society.)

Self-image

The formation of self-image in an individual is usually after a set of experiences and regards felt by the individual. Carl Roger states that the self-structure or self-image is a vulnerable gestalt and fluid in the state. He stresses the fact that it is a single specific entity that can be partially defined. According to Roger self-image/structure is the way of looking at oneself through an external frame of reference. This external frame of reference includes his/her social others, media, etc.



Manfred Kuhn's and Thomas McPartland's 'Twenty Statements Test' probes to find a standardized method to analyze an individual's thoughts and self-attitudes. These twenty statements as stated by Kuhn are classified into 4 categories:

1. Physical description
2. Social roles
3. Personal traits
4. Existential statements

Physical Description

An individual is said to describe his/her physical features, such as brown eyes, thin, tall, plump, etc.

Social Roles

The role of the individual in his/her social system/establishment can include football player, mathematician, philanthropist, etc.

Personal Traits

The way an individual collides with the society around them. This includes introvert/extrovert, talkative, ferocious, courageous, impulsive, etc.

Existential Statement

The view of an individual as an isolated being in a society. The individual's identification of his/her existence in the large world.

Students in the language lab are provided with the task of giving an introduction about themselves in the class. This task is used to test their speaking skill.

In the process, the students are instructed to take a personality test, such as Keirsey's Temperament Sorter. This temperament test is based on Hippocrates and Plato's four humours. It measures people against four temperaments: Artisans "having the freedom to act on the spur of the moment, whenever or wherever an opportunity arises, is very important to artisans" (Keirsey,18), Guardians "everything [to] is in its proper place, everybody [to] is doing what they're supposed to ... and all legitimate needs promptly met" (Keirsey,19), Idealists "all idealists consider it vitally important to have everyone in their circle – their family, friends, and colleagues – feeling good about themselves and getting along with each other" (Keirsey,19) and Rationalists "all rationalists insist that they have a rationale for everything they do, that whatever they do and say makes sense" (Keirsey, 20).

This task helps students to analyze their self and decode their traits. It also enables them to identify their "habits of communication, patterns of action, and sets of characteristic attitudes, values, and talents" (Keirsey, 05). This process facilitates the students to recognise their unique personality which is distinctive in comparison to the collective group they belong to.

Self-Esteem

Self-esteem is defined as the manner or extent of how we approve or accept ourselves and how we value ourselves. This includes both our positive and negative regards in us. Carl Rogers states that every individual needs positive self-regard. When an individual possesses the capacity toward actualizing his/her existence, when she/he cannot be in total awareness of his/her experience, he/she would have a higher positive self-regard. The positive self-regard would later enable them to gain new experience, to be bold, and confident, and result in a self-structure that will have no conditions on self-worth. Here his/her self-esteem is considerably higher. A person who has positive self-regard to his/herself will be endowed with creative and unique possibilities for complexities faced in life.

The people with low self-esteem would have no proper positive regard towards their self. This would result in the person concealing himself/herself from experiencing anything new, being naïve, and deteriorating in confidence. Their self-structure is thus constructed on the list of conditions that would declare them of worth. They also inculcate a constant and consistent pessimistic view of life. People with low self-esteem acquire “social anxiety and low levels of interpersonal confidence. This in turn makes social interaction with others

difficult as they feel awkward, shy, conspicuous, and unable to adequately express themselves when interacting with others.” (Rosenberg and Owen, p.409 Simply Psychology)

This issue is probed in the language lab and students are facilitated with exercises to overcome their lower self-esteem. These exercises enable the individual to have a positive regard towards his/her self-structure. Exercises such as writing a travelogue, attending mock interviews, participating in group discussions, and working in teams.

Writing a travelogue exercise enables the student to view life through his/her personal experience. Since this kind of writing encourages a more positive view of a particular place, the student incorporates his/her personal experience on visiting the place and also assists them in depicting the positive aspect of the place. The uniqueness of the writing is observed and appreciated. The student is not allotted any customized destination to explore their views. Rather they are encouraged to write about the place they have visited and the aspects of the place that fascinated their travel experience.

Attending mock interviews allows the students to overcome fears and social anxiety. This exercise constructively helps the students to become bold and courageous to new experiences in life. In a group



discussion, every individual in the group is encouraged to state in share their view, ideas, thoughts, and comments on a common topic. During this session, the individual's contribution is noted and probed in a positive aspect by the moderator heading the session. This exercise enables the students to disregard students lack of confidence and encourages them to become active participants in expressing their opinions.

Working in a group aids the students in breaking their shell of shyness and social anxiety. In a group project, every person in the group is allotted different categories of work to be done to achieve the common group goal. While performing this exercise the student develops effective communication skills. The student also works his/her part in the group work to project their individuality and works together to emerge with effective and creative plans for the betterment of completing the project. The teacher not only recognizes the effective work of the group but also perceives the individual's contribution and participation in the group work.

Ideal Self

Ideal self is defined as the aspirations and ambitions that an individual abides within himself/herself. The ideal self is the inner thought of how one desires his/her self to be. If an individual fails to view

himself/herself (self-image) as they want to be (ideal self), it consequently affects their self-esteem. Psychologists stipulate the intricate relationship between self-image, self-esteem, and the ideal self. If anyone among these gets affected the rest are mutually disturbed. "Ideal self (or self-ideal) is the term used to denote the self-concept which the individual would most like to possess, upon which she/he places the highest value for himself/herself." (Rogers)

The ideal self though defined in the same way as the self-structure differs from each other in a single aspect. Self-structure/image is the gestalt that is formed based on experience in different contexts. It is the viewpoint or the comprehension of one's self-based on the acquired experience. Ideal self on the other hand is the legitimate aspirations and status quo that one yearns to become or achieve in life.

Usually, an individual's ideal self contrasts with the self-image that is acquired through experience. This process of disagreement between the ideal self and self-image (constructed on various experiences) contributes to incongruence. Congruence is when the ideal self agrees with the acquired experience. The development of congruence in the person leads to self-actualization. Michael Argyle presents four major factors that induce the development of congruence:

1. Positive regard received from others.

Engineers, self, self-concept, self-image, ideal self, unemployment, and suicide.

2. The awareness of how we compare with others.
3. Considering the social roles prompted to us
4. The extent to which we agree and identify with people around us.

This process of achieving congruence is achieved in language labs through the assignment of certain exercises to the students. Note-making is one of the assigned exercises. This exercise is performed not only to evaluate the writing skills of the student but also the listening skills. Short films, and inspirational speeches of celebrities, experts, and common people are screened for the note-making exercise videos from Ted Talks. The students are asked to comment and share their views on the important factors depicted in the media screened. This exercise provides the student the chance to learn and alternate their ideal self. The congruence is obtained when they are enabled to correlate their negative experiences with others. They become aware of how they compare themselves with others. The notes taken by the students help them to analyze the social roles prompted to them, such as taking up responsibility, overcoming fear and anxiety, developing a positive attitude toward life, etc. The discussion in the classroom allows the students to analyze the important points in the video and encourages them to assess

themselves for agreement and disagreement with others.

Conclusion

Indian education calls for a tremendous change in educating the future of India. The stronghold of building a healthy life is crumbling due to the poor education system. The established education so far has taught me how to excel to construct a wealthy life. Particularly the field of engineering in India has mechanized the students by building them into individuals devoid of basic skills, ethics, values, and etiquette. It is necessary to build and provide classrooms to students where they not only apply theory to experiment but reflect on themselves. Students need to analyze their self, discover their competence, build confidence, and develop congruence. Language lab inculcates in the students the ability to agree/disagree, comment, criticize, examine, and evaluate the basic components of life. In addition to developing communication skills, the language lab allocates space for the students to re-evaluate, re-examine, and reflect on self and its nous. As Aldous Huxley comments, "There is only one corner of the universe you can be improving, and that is yourself."



References

- Argyle, M. (2008). *Social encounters: Contributions to social interaction*. Aldine Transaction
- Baumeister, R. F. (Ed.) (1999). *The self in social psychology*. Philadelphia, PA: Psychology Press (Taylor & Francis).
- Bee, H. L. (1992). *The developing child*. London: HarperCollins.
- Bhattacharya, Ananya. "In India, One Student Commits Suicide Every Hour." *Quartz India*, Quartz, 8 Jan. 2018, qz.com/india/1174057/in-india-one-student-commits-suicide-every-hour/.
- Chang, Laura K. "Keirsey: The Four Temperaments." *Mindfulness Muse*, 6 July 2012, www.mindfulnessmuse.com/individual-differences/keirsey-the-four-temperaments.
- Choudhary, Alok. "Why Are So Many Indian Engineers Unemployed." *YouthKiAwaaz*, 2017, www.youthkiawaaz.com/2017/09/engineering-in-India-selling-certification-not-qualification/
- Keirsey, D. (1998). *Please understand me II: Temperament, character, intelligence*. Del Mar, CA: Prometheus Nemesis Book Company.
- Kuhn, M. H. (1960). Self-attitudes by age, sex, and professional training. *Sociological Quarterly*, 1, 39-56.
- Lewis, M. (1990). Self-knowledge and social development in early life. In L. A. Pervin (Ed.), *Handbook of personality* (pp. 277-300). New York: Guilford.
- Miller, D. T., & Ross, M. (1975). Self-serving biases in the attribution of causality: Fact or fiction? *Psychological Bulletin*, 82, 213-225
- Morse, S. J. & Gergen, K. J. (1970). Social comparison, self-consistency, and the concept of self. *Journal of Personality and Social Psychology*, 16, 148-156.
- Rogers, C. (1959). A theory of therapy, personality, and interpersonal relationships as developed in the client-centered framework. In (ed.) S. Koch, *Psychology: A study of a science. Vol. 3: Formulations of the person and the social context*. New York: McGraw Hill.
- Rogers, Carl R. "A Theory of Therapy and Personality Change: As Developed in the Client-Centered Framework." *Perspectives in Abnormal Behavior*, 1974, pp. 341-351.

Engineers, self, self-concept, self-image, ideal self, unemployment, and suicide.

- Rosenberg, M., & Owens, T.J. (2001). Low self-esteem people: A collective portrait. In T.J. Owens, S. Stryker, & N. Goodman (Eds.), *Extending self-esteem theory and research* (pp. 400-436). New York: Cambridge University Press.
- Saha, Devanik. "A Student Commits Suicide Every Hour In India." *IndiaSpend-Journalism India |Data Journalism India|Investigative Journalism-IndiaSpend*, 6 Apr. 2017, archive.indiaspend.com/special-reports/a-student-commits-suicide-every-hour-in-india-3-85917.
- Samuel, Anand. "Engineering a Future?" *The Hindu*, *The Hindu*, 9 June 2013, www.thehindu.com/feature/s/education/engineering-a-future/article4794903.ece#!
- Sengar, Shweta. "Every Hour, 1 Student Commits Suicide In India Due To Mental Illness, Yet Nobody Talks About It." *Indiatimes.com*, *India Times*, 9 Jan. 2018, www.indiatimes.com/news/india/in-india-one-student-commits-suicide-every-55-minutes-yet-depression-is-conveniently-ignored-337345.html.
- Sujatha. "Engineer Education In India Fails To Impart Requisite Skills." *My India*, 10 May 2017, www.mapsofindia.com/my-india/society/engineer-education-in-india-fails-to-impart-requisite-skills.