

Bloom's Taxonomy as a Teaching Pedagogy for Communication Skills at Engineering Colleges in India

Shabana Swarnakanth Kati

Research Scholar,
Abeda Inamdar Senior College,
Pune, Maharashtra.

&

Dr. Mukul Joshi

Research Guide,
Abeda Inamdar Senior College,
Pune, Maharashtra.

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Abstract:

The present paper aims to stress the use as a facilitator's instrument of Bloom's Taxonomy. The concept is to develop and offer Communication Skills courses in English. The paper studies Bloom's Taxonomy's conceptual structure and its objective in today's education, especially in designing curricula and practical aspects of delivering the course in Indian Engineering Colleges. The present paper's main objective is to proclaim that Bloom's Taxonomy as a teaching method balances the evaluation and evaluative questions in class, activities, and documents, ensuring that all thought orders are practised in students' learning.

Keywords: Communication Skills, Soft Skills, Bloom's Taxonomy, Explicit, Implied, Cognitive, Affective, Psychomotor, Higher order, Lower order.

Introduction:

The English language teaching initially was to introduce linguistic structures with the idea that the learners would get a stronghold in grammar knowledge to understand the language. Thus, students who went through the above learning process did understand the grammatical units but failed to address a significant language learning element, i.e., communication skills.

However, the situation is getting more and more difficult as far as communication skills are concerned. Language literacy in the English-speaking world is the capacity to speak, read and write Standard English so that business people communicate. Lack of English Language Teaching (ELT)-trained professionals and inferior teaching methods resulted from the lack of necessary

language communication skills among engineering students and teaching courses at colleges. Many agree that the English course for universities' technical colleges is competitive as it meets universities' needs. However, a heartening fact is that there is much practical information that adult learners possess, and the sad thing is that they do not always use what they know. Therefore, the role of educational intrusion here is simple, not to provide new knowledge to learners but to make them aware of what they already know and use their transferable practical experience of the mother tongue in second language contexts. In any conversation, one finds that the speakers convey most of the communicational content through implication rather than by explicit statements. It is not possible to maintain a conversation without the use of implied meaning.

Most engineering students' learning method and teaching method of most engineering professors are incompatible in several proportions. Most engineering students are visual, sensing, inductive, and active. Some are most creative, resulting in mismatches and poor student performance, professorial frustration, and a loss to society of many potentially excellent engineers. Therefore, the present paper aims to determine the nature of Communication Skills training in engineering colleges students.

Pollard (2008: 34) notes that one of the most challenging elements for learners to master is speaking. Speaking is a challenging factor for learners to learn since they do not have ample English exposure (environmental factor). Infrequent English-speaking practises in everyday life (they could use the mother tongue to communicate, instead of using English). Learning English makes them feel awkward and lazy. Many students cannot talk intelligently to others because they do not know how to communicate and say what they want to say and lack contact more frequently.

It has been observed that the available English Language teaching method/s in many universities and colleges appeared to be deficient, and there is inadequate emphasis on the appropriacy of Communication Skills and Soft Skills in building the personality of the students. Moreover, neither a particular method nor even the blend of methods suitable for achieving the desired objectives was followed. There is a dire need to improve higher learning outcomes. Therefore, this paper has purported that the specific approach, like Benjamin Bloom's Taxonomy (2001 revised edition), would foster Communication Skills and strongly influence young people's ability to develop them.

On February 21, 1913, Benjamin Samuel Bloom was born, one of the greatest minds affecting Lansford, Pennsylvania's education sector. Bloom's most recognised and importantly

considered original work was developed and recognised as Bloom's Taxonomy from his partnership with his mentor and fellow examiner Ralph W. Tyler. In 1957, he travelled to India to hold appraisal seminars, contributing to substantial Indian educational system changes. He helped create the IEA, the International Association for the Assessment of Educational Achievement and coordinated the International Curriculum Development Advanced Training Seminar.

The Taxonomy of Bloom describes student results in which each stage is based on the one below. The first learning phase of basic understanding contributes to acquiring skills and abilities required for the pedagogical process to be completed: comprehension, implementation, examination, synthesis and assessment. Although there are sub-categories for each sub-category, each phase is a continuum. The belief is that Bloom's Taxonomy learners move up through every stage of the pyramid, beginning with essential learning, to a deeper understanding of a subject, with each level crucial to the creation of the next one.

Thus, this paper is an attempt to analyse the model from the perspective of a facilitator. It revolves around Bloom's Cognitive Taxonomy (1956) using the three domains: the cognitive, affective and psychomotor concept of learning in the current education learning by synchronising the three domains.

The cognitive-based domain refers to any subject's primary or fundamental principles. The authors planned the curriculum and the course concerning this learning domain, bearing in mind the value of understanding the rudimentary concepts of instruments and techniques.

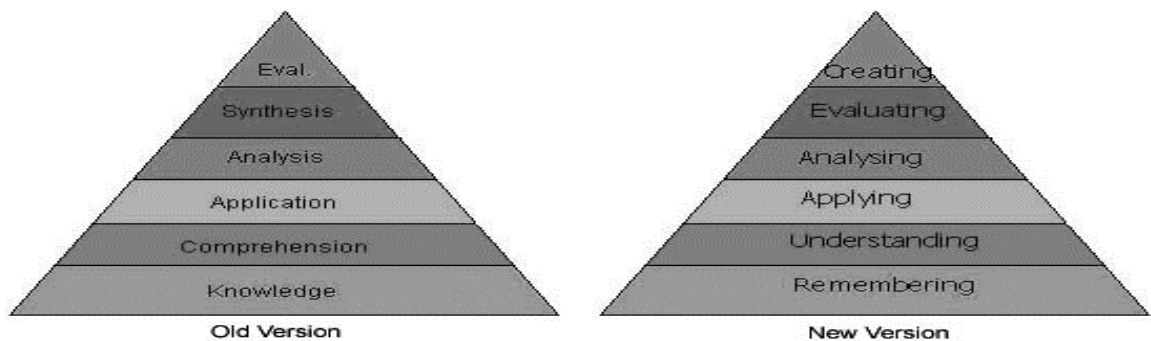
Furthermore, in the affective aspect, the principle of attitudinal based domain knowledge, which is a source of feelings and emotions of learning, can be the rooting of Soft Skills for the students, which is undoubtedly the need of the hour. For instance, the need to emphasise positive attitude building, personal effectiveness, and self-awareness falls into the affective factor area, as is believed.

The third component is the psychomotor or skill-based domain, which refers to all skill-building-based activities like writing, presentation, decision-making, and analytical skills. Thus, the three learning domains can be incorporated into contemporary education as an educator's tool.

Many educational institutions follow different methods of teaching a curriculum of Communication Skills. For many years, the learning levels have often been depicted as a set of steps, directing many teachers to encourage their students to reach a higher level of thought. However, Benjamin Bloom's Taxonomy is a multifaceted model that classifies thinking according

to six cognitive complexity levels. In the 2001 revised edition of his Taxonomy, Bloom changed the levels from noun to verbs. The levels are: remember, understand, apply, analyse, evaluate, and create. A petite dimension of change from noun to verb planned for university examiners "has been transformed into a basic reference for all educators worldwide". "Surprisingly, it has been used by curriculum planners, administrators, researchers and classroom teachers at all levels of education." (Anderson & Sosniak, 1994, p.1). A simple, succinct, visual depiction of expectations aligns with educational goals, priorities, items or activities in the structure of the updated Taxonomy Table framework (Krathwohl, 2002). Shields and Rangarajan (2013) and Granello (2001) also have made functional connections concerning activities involved in "Benjamin Bloom's revised Taxonomy of the cognitive domain." Furthermore, Apex Professional University (APU), Bangalore, is the first University to recognise the importance and reliability of Bloom's Taxonomy teaching method in various fields, affecting a revolution in teaching methodology.

Bloom's original cognitive taxonomy was one-dimensional form but with the addition of products and the revised Bloom's Taxonomy becomes a two dimensional one. In 2001, Bloom's Taxonomy's updated version stressed its use as a more accurate method for curriculum preparation, instructional implementation and evaluation. A more active mode of thought is expressed in the new Taxonomy; the levels have been modified from noun to verb; recall, understand, apply, examine, assess and construct. The layout of the updated Taxonomy Table Matrix "provides a clear, concise visual representation" (Krathwohl, 2002) of the alignment between expectations and educational goals, objectives, products and activities.

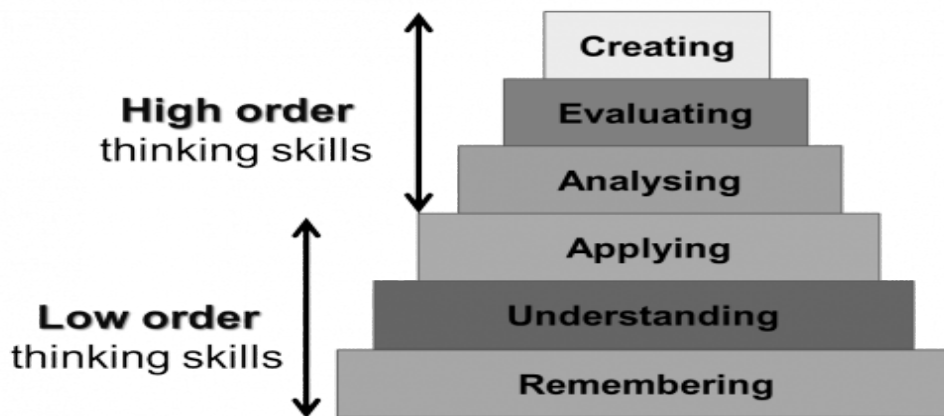


The new terms are defined as:

- **Remembering:** Retrieving, recognising, and recalling relevant knowledge from long-term memory.

- **Understanding:** Constructing meaning from oral, written, and graphic messages through interpreting, exemplifying, classifying, summarising, inferring, comparing, and explaining.
- **Applying:** Carrying out or using a procedure through executing or implementing.
- **Analysing:** Breaking material into constituent parts, determining how the parts relate to one another and an overall structure or purpose through differentiating, organising, and attributing.
- **Evaluating:** Making judgments based on criteria and standards through checking and critiquing.
- **Creating:** Putting elements together to form a coherent or functional whole; reorganising elements into a new pattern or structure through generating, planning, or producing.
(Anderson & Krathwohl, 2001, pp. 67-68)

Therefore, the authors assert that Bloom's Taxonomy would have a considerable impact in assisting teachers of every subject to plan instructional activities covering the hierarchy's six levels. Bloom arranged these categories in increasing order, from lower order to higher order (Churches, 2008) as is represented.



Lower Order

Awareness (Remembering): These kinds of questions test students' capacity to memorise and recall words, facts, and information without knowing the concept necessarily.

Keywords: Remember, State, Write, List & Name, Memorise, Describe, Recognise, Repeat.

Comprehension (Understanding): These questions measure the students' capacity to summarise and illustrate without actually referring to something in their terms.

Keywords: Define, distinguish, explain, perceive, forecast, acknowledge & summarise.

Higher-Order

Application (Transfer): Application questions allow learners to adapt or transfer learning to their own lives or to a context other than what has been learned.

Keywords: Contrast, Explain, Examine, Relate, Solve & Use, Apply, Compare.

Study (Relating): These questions enable students to divide content into parts, identify patterns and relationships between parts, subdivide data, and explain how it is placed together.

Keywords: evaluate, differentiate, distinguish, explain, infer, connect, study & separate.

Synthesis (Creating): These questions inspire learners to construct something new using a mixture of ideas to form a new whole from various sources.

Key Words: Formulate, incorporate & coordinate, arrange, combine, construct, design, produce.

Evaluation (Judging): evaluation questions allow students to build perceptions and make value judgments based on clear criteria about issues.

Keywords: Analyse, condemn, determine, assess, judge, justify, measure & suggest.

Others have also been encouraged to give their own 'take' on critical thought. For instance, Unrau (1977) believes facilitators need to help their students build a personality to think critically., like:

- Imagining alternative solutions and perspectives
- Trying to persevere in acquiring and integrating knowledge
- Playing with ideas
- Evaluating the consequences of beliefs, decision, and actions
- Reflecting on one's thinking and that of others to gain knowledge or oneself and others.

Bloom's Taxonomy outcomes will fulfil the need for a contextualised teaching to seek understandable pronunciation and use the linguistic system efficiently and appropriately. The present paper attempts to use Blooms Taxonomy as an enabler to fit with the practical element of learning to communicate with courses such as Communication Skills. A planned syllabus and an appropriate intervention method to teach the Engineering students to improve self-awareness and

develop eagerness and enthusiasm will help them emerge as winners irrespective of their difficulty. Following is the structure of teaching the aspects of language considering six levels of the Taxonomy.

LEVEL	ATTRIBUTES	COURSE	OBJECTIVE	ACTIVITY/ ASSESSMENT
Remembering	Recall, visualise	Communication Skills	By the end of the course, the students should be able to develop competency in human relational interaction	Connecting to the appropriate language, style, and tone helps the students become effective communicators and productive professionals.
Understanding	Interpret, demonstrate		Understanding situations and applying the strategies of speaking skills.	Using the techniques to demonstrate the ability to listen and respond.
Applying	Solve, use		Apply principles, strategies to know contextual meanings	Creating conversational dialogues
Analysing	Separating, sifting		Analyse the audios and pronounce different words	Creating conversational dialogues with proper intonation
Evaluating	Checking, experimenting		Evaluating the proficiency of speaking skills	Enacting in specific situations with body language practice and evaluating self in various situations
Creating	Designing, planning		Review	Faculty Review

Conclusion:

Thus, the changes would be genuine and positive to identify the importance of mastery of skills. The pedagogy of teaching the language must be:

A. Presentations or discussion techniques to relay information drawn from the paper on practical issues to students.

B. Provide detailed information on the participants, status, situations, and occurring speech events.

C. The information provided to students in awareness-raising activities will help learners understand the target language's components. Considering the present scenario, the lack of appropriate and practical skills affects the students' employability in the job market. Thus, the present paper highlights the following insights to purport while dealing with Communication Skills. They are:

- Students need to be groomed well from the beginning of their courses better to understand the expectations of the employers' expectations.
- The syllabus must also be updated from time to time, based on the need of the industry
- Innovative teaching and motivating teaching approaches would surely enhance proficiency, body language, and confidence.
- There needs to be a measurement tool to place the gradual improvement of the students.

To conclude, the researcher would like to assert that exposing students to need-based skills training sessions is likely to result in enhanced communication skills for their employability and career growth. Exposing students to need-based skills training is likely to enhance their enhanced Communication Skills for their employability and career growth. The ability to correctly interpret or translate the meaning in a suitable situation. The emphasis must be on mastering the language functions. The communicative function that language is used for, i.e., Language learning, should also be interactive and strive to improve learners' communicative skills. Thus, the present paper asserts that an innovative teaching style like Bloom's Taxonomy and motivating teaching approach would surely enhance the students' language proficiency, body language, and confidence.

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