



## TEACHING SKILLS AND SHAD DARSHANAS : REFLECTING ON PROMINENT MICRO TEACHING SKILLS APROPOS PRAMANAS IN EPISTEMOLOGY OF INDIAN PHILOSOPHY

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### Abstract

*A teacher is considered the maker of destiny of a nation. He/she has a two-fold identity, that of being an educator and a life-long learner. As an educator, a teacher needs to be pedagogically sound while as a life-long learner a teacher needs to be a philosopher and have a sound knowledge of Educational Philosophy. The knowledge of Philosophy equips the teacher with the faculty of weltanschauung thereby polishing the acumen and refining teaching skills. It won't be an exaggeration to say that Philosophy and Pedagogy complement as well as supplement each other. The present paper reflects upon core teaching skills in the light of prominent Pramanas encompassed in Epistemology of some major schools of Indian Philosophy and also throws light on how these skills are interrelated to various Pramanas besides giving valuable suggestions pertaining to the use of same in the field of Teaching and Pre-service Teacher Education programme.*

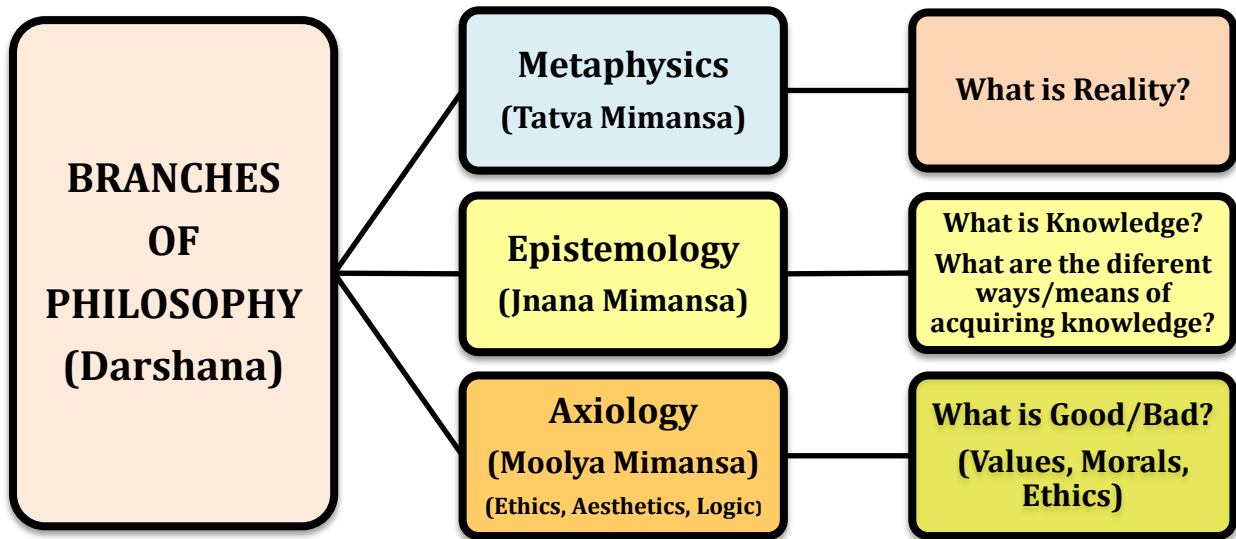
**Keywords:** *Epistemology, Pramanas, Pedagogy, Philosophy.*



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### Introduction

Etymologically, the word Philosophy is made up of two words - *Philos* (love) and *Sophia* (wisdom) i.e. philosophy is the love of wisdom. In Indian context, the word 'Darshana' has been used in place of *philosophy*. The word 'Darshana' has been derived from 'Drish' (Sanskrit) which means 'to see' (vision). Philosophy endeavours to understand all that comes within the bound of human experience. Philosophy is the cornerstone of education. It pervades every aspect of education (aims and ideals, curriculum, teaching methods, teacher, discipline, administration, evaluation).



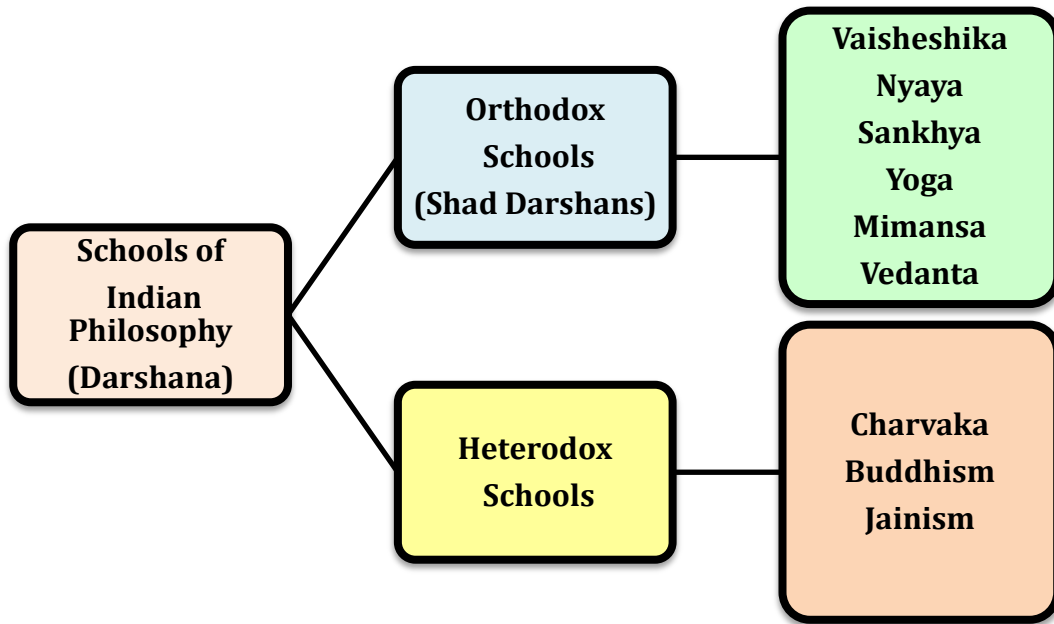
**FIGURE 1: BRANCHES OF PHILOSOPHY**

Education deals with knowledge and is determined by source, limits, criteria and means of knowledge the discussion of which falls within the purview of Epistemology (an area of Philosophy). In fact, both complement each other.

Epistemology discusses means by which human beings gain knowledge (*Jnana*). Etymologically, the term *Jnana* originated from 'Jna' dhatu of Sanskrit which means 'to know'. The knowledge may be true (*Prama*) or false (*Aprama*). In the process of acquisition of knowledge there are four elements:

1. *Pramata* (Knower/subject)
2. *Prameya* (To be known/object)
3. *Pramana* (Means/instrument of getting knowledge)
4. *Prama* (True/right knowledge)

The crux of *Pramana* is how correct knowledge (*Jnana*) can be acquired, how one knows, how one doesn't, and to what extent knowledge pertinent about someone or something can be acquired.



**FIGURE 2: CLASSIFICATION OF INDIAN PHILOSOPHY**

With respect to *Shad Darshan*as of Indian Philosophy, six pramanas have been accepted viz. *Pratyaksha* (Perception), *Anumana* (Inference), *Upamana* (Comparison), *Sabda* (Word), *Arthapatti* (Postulation) and *Anupalabdhi* (Negation/non-cognition).

**Disquisition:**

**Prominent Pramanas at a glance:**

- 1) **Pratyaksa (Perception)** – Perception is the knowledge gained or acquired through the sense organs viz. *Visual, Aural (auditory), Olfactory, Gustatory and Tactual*. It serves as the basis for all other pramanas. It is used to teach concrete concepts and corresponds to Sensory knowledge encountered in Western philosophy. Perception (*pratyaksa*) has been universally accepted as the primary source of valid knowledge. It is a direct source of knowledge.
- 2) **Anumana (Inference)** – It is mediate and indirect knowledge. It is acquired on the basis of previously perceived knowledge. It is described as reaching a new conclusion and truth from one or more observations and previous truths by applying reason and logic. It corresponds to Western Syllogism. It is used in teaching of Sciences, Mathematics, Social sciences etc. It sharpens the power of reasoning and logical thinking.
- 3) **Upamana (Comparison)** – It roughly corresponds to Analogy. It is the knowledge which results when the object being perceived is similar to the one perceived earlier. It is used in teaching of Language(s), Sciences, Mathematics, Social sciences etc.
- 4) **Sabda (Word/Verbal testimony)** – The meaning of *Sabda* is the statement (*Apta-Vachan*) of a trustworthy person (*Aptavakta*) and consists in understanding its

meaning. In *Sabda Vidhi*, we repose confidence in the statements of distinguished persons and thereby acquire knowledge. A sentence is defined as a collection of words and a word is defined as that which is potent to convey its meaning. The ordering of words in a sentence is very important.

As per *Nyaya Darshan*, there are four parameters for a statement to be meaningful:

- a. *Akanksha* (Expectancy) - Interdependence of the words in a sentence for expressing a complete meaning.
- b. *Yogyata* (Mutual fitness/ability) – Pertains to appropriateness of words in a sentence, to the absence of contradiction in its terms.
- c. *Sannidhi* (Temporal and Spatial Proximity/closeness) – Pertains to the words to be used within the limits of an appropriate time and space.
- d. *Tatparya* (Contextual meaning/Prakarana) - Refers to the meaning one intends a sentence to convey. A word may have various meanings depending on its context, so one has to be careful to determine the real intention of the person who uses the word.

*Sabda vidhi* is a **universal method** of acquiring knowledge. Even today, we use this method for learning so many things. Question-answer, description, explanation, exposition, discussion, text (books, scriptures, treatises etc.), print and electronic media fall under this category.

- 5) **Arthapatti (Postulation)** – It is the necessary supposition of an unperceived fact which alone can explain a phenomenon that demands explanation. Example: a man who is growing fat is observed fast during daytime. But these two facts (fatness and fasting) don't reconcile with each other unless we admit that the man eats and rests at night. Knowledge obtained in this way is distinctive and not reducible to Perception (we don't see the man eat at night) or Inference (as there is no *invariable concomitance* between fatness and eating at night. We cannot say that wherever there is fatness, there is eating at night, as we can say that wherever there is smoke there is fire) or Comparison or Testimony. It will be found that *arthapatti* resembles a hypothesis as understood in Western logic. It appears to be like an explanatory hypothesis but the difference is that it lacks the tentative character of hypothesis. As *arthapatti* arises out of a demand for explanation, it is different from syllogistic inference the object of which is to conclude from given facts and not explain them. *Arthapatti* is a search for grounds whereas *Anumana* is a search for consequents.

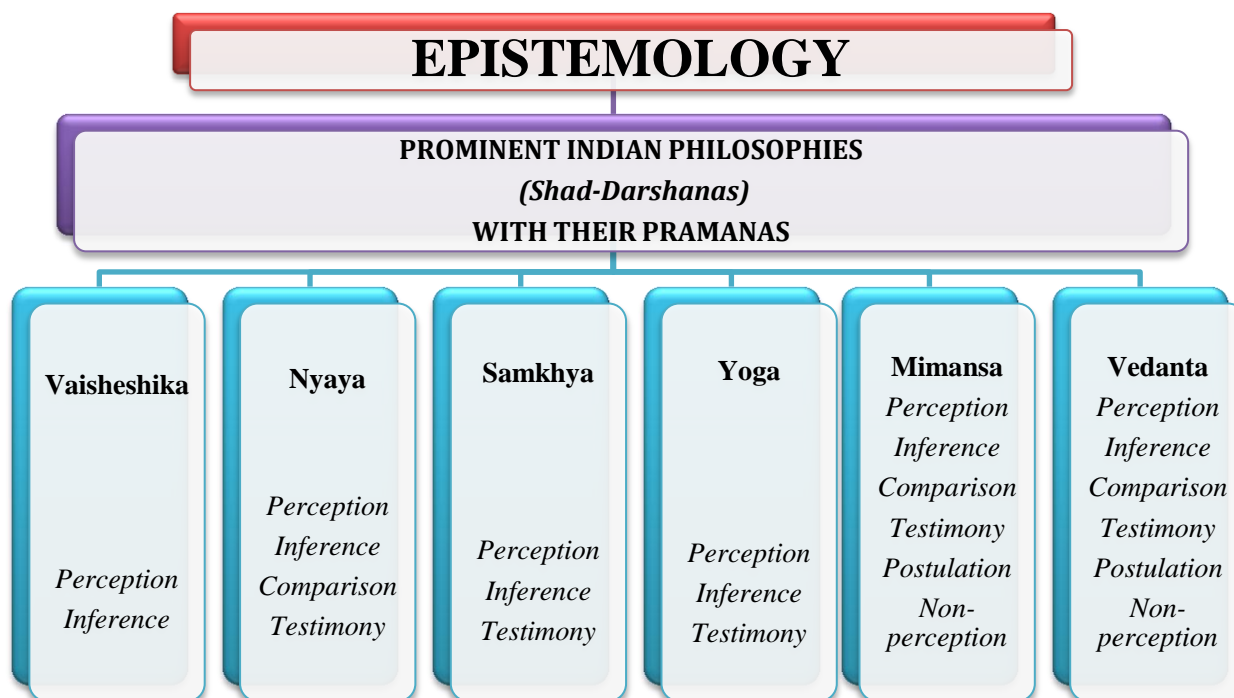


FIGURE 3: SHAD DARSHANAS WITH PRAMANAS ACCEPTED BY THEM

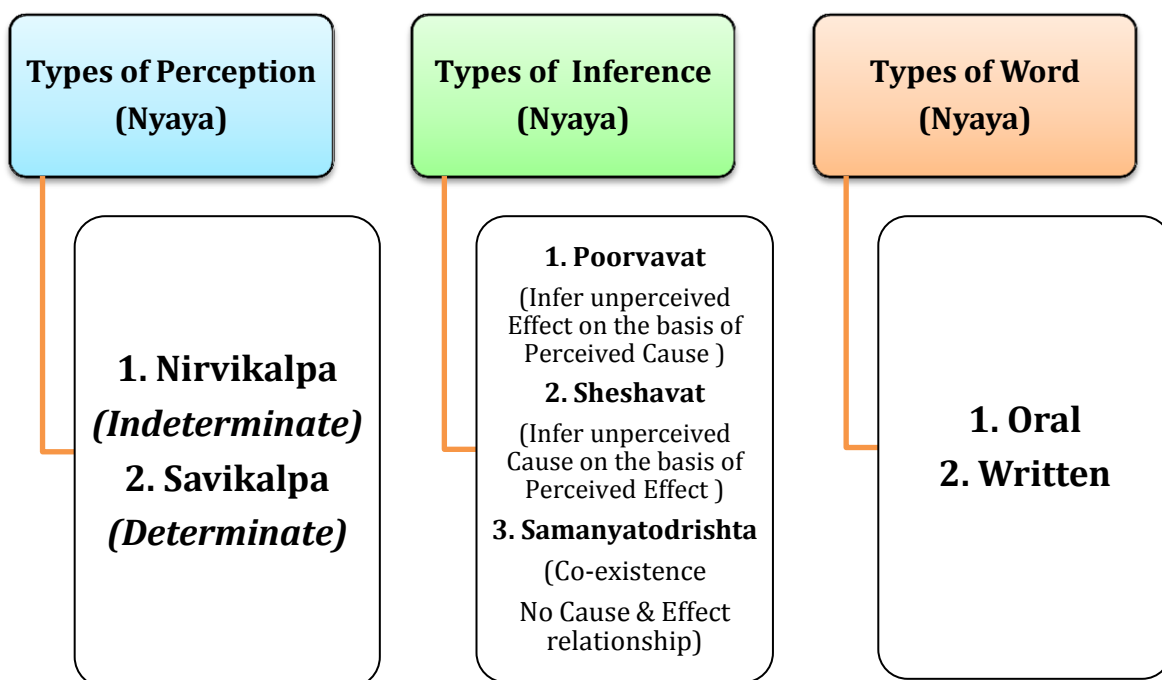


FIGURE 4: SUBTYPES OF VARIOUS PRAMANAS (NYAYA DARSHANA)

**Meaning of Teaching Skills:** Teaching Skills is a set of overt behaviours of the teacher (verbal and non-verbal) that can be observed, measured and modified.

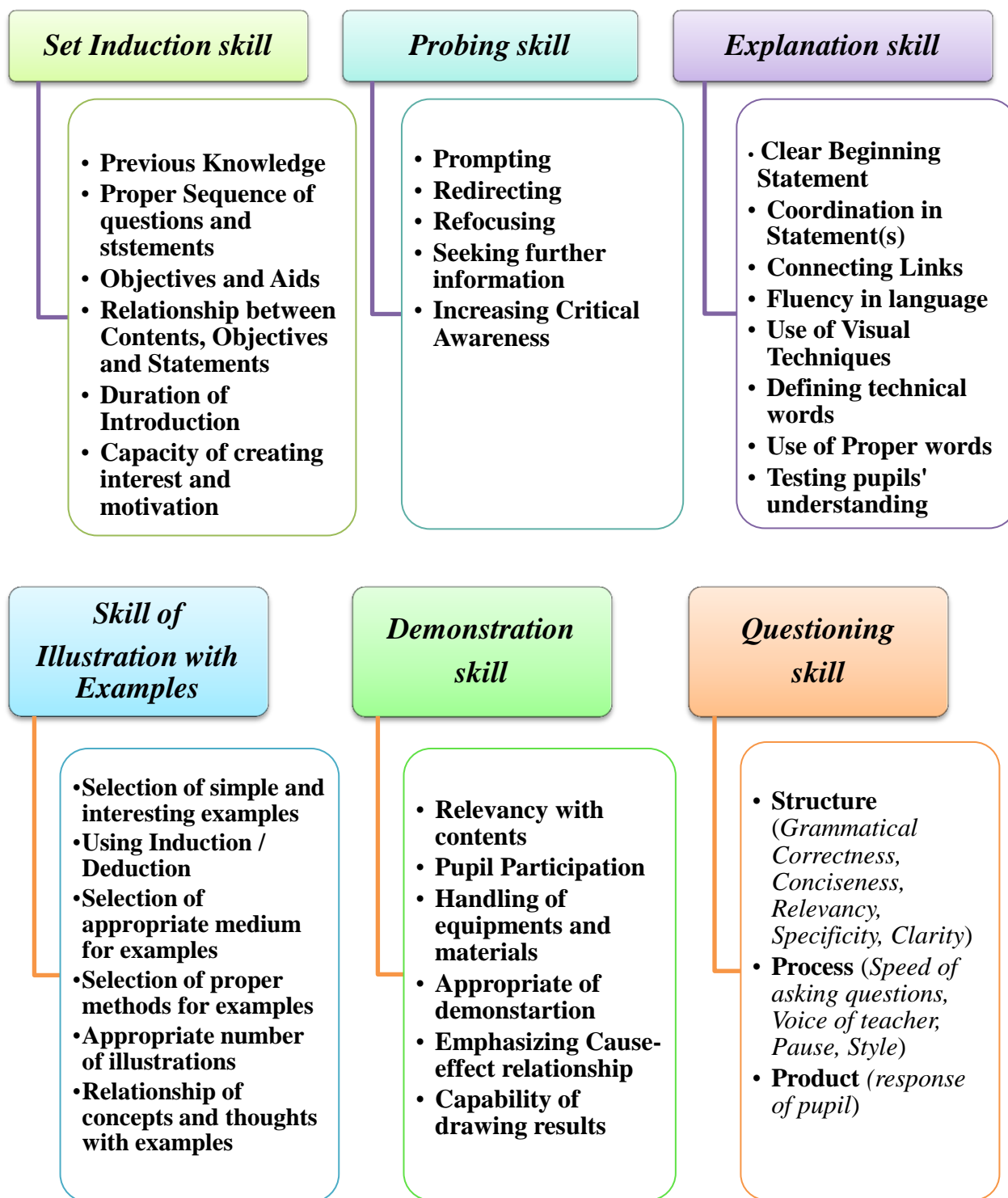
**Micro Teaching:**

**Allen (1966):** defines Micro-teaching as “scaled down teaching encounter in class size and class time.”

**Allen and Eve (1968):** “A system of controlled practice that makes it possible to concentrate on specific teaching behavior and to practice teaching under controlled conditions.”

**Meaning of Various Prominent Teaching Skills:**

- a) **Set Induction** (Lesson Introduction skill) – It links previous knowledge with the present knowledge.
- b) **Explanation skill** – Use of connecting / explaining links to link the statement or systematic information. When a teacher shows his / her behavior while explaining the pupils about ‘What’, ‘Why’ and ‘How’ regarding some facts, principles and concepts, this constitutes the explanation skill. It is considered essential in all subjects. Herein, such words are used in the statements by which the statements exhibit the clarity of their meanings. *Omission of word/words renders the statement vague.*
- c) **Illustration** –Explanation of concepts through examples and by displaying charts, models, film strips, slides, multimedia etc.
- d) **Skill of Demonstration** – It encompasses practical activity performed by the teacher before the class.
- e) **Use of Chalkboard/Whiteboard/Blackboard** – The essential components include clarity of handwriting, legibility, correct spellings, drawing figures, diagrams, schematic representation etc.
- f) **Lecture** – The verbal communication of self-ideas, concepts and principles is called lecturing. It is concerned with the effective presentation of the content. Also known as Communication Skill.
- g) **Probing questions** – It stimulates the cognitive development of the pupils. By asking such questions, the teacher makes the pupils more thoughtful and understand the subject deeply.
- h) **Lesson Closure** – When the teacher teaches the topic or delivers lecture and properly sums up what has been taught and that too in an attractive, effective and efficient manner, the skill is termed as *Closure Skill*. The lesson remains ineffective in the absence of proper closure.
- i) **Use of Audio-Visual aids** – It is essential to make the teaching task more attractive and effective.
- j) **Stimulus Variation** – It means changing of gestures, positions, voice pitch etc. by the teacher.



**FIGURE 5: SOME PROMINENT TEACHING SKILLS WITH THEIR COMPONENTS**

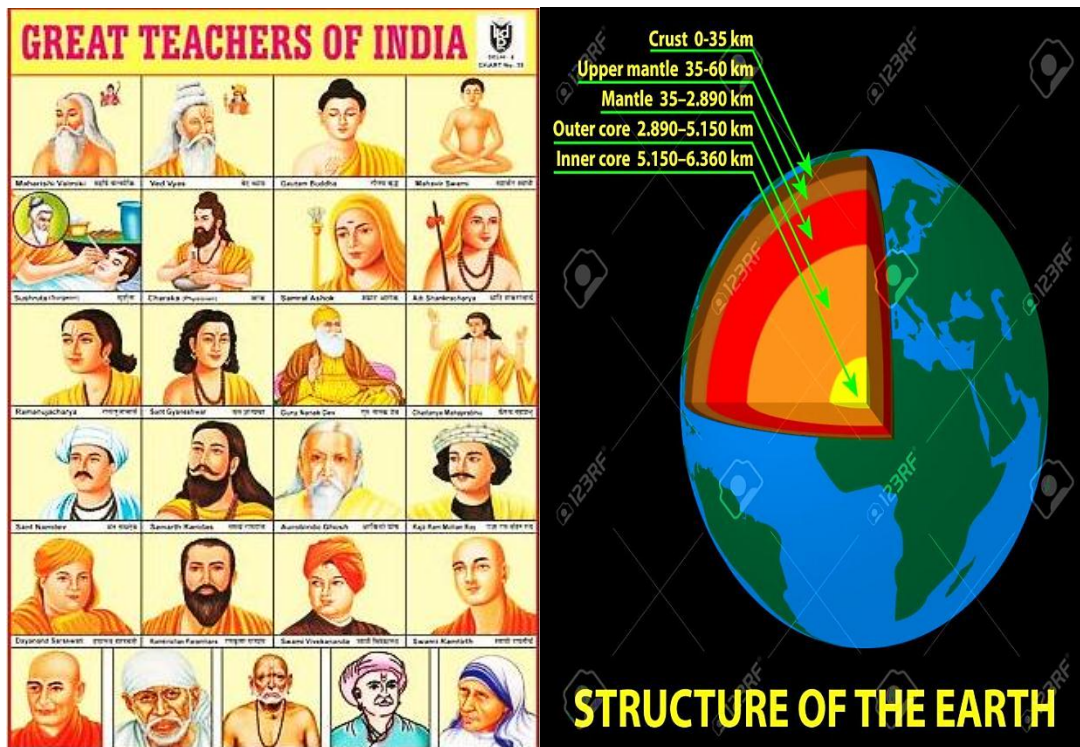
**Table 1: Prominent Teaching Skills vis-á-vis Pramanas encompassed in Indian Philosophy**

<b>Teaching Skill(s)</b>	<b>Correspond(s) to</b>
<b>Set Induction (Lesson Introduction)</b> <ul style="list-style-type: none"><li>• Without teaching aid</li><li>• With teaching aid</li></ul>	Oral Word (Sabda) Aural and/or Visual Perception + Sabda
<b>Explanation</b>	Sabda
<b>Illustration</b> <ul style="list-style-type: none"><li>• Using Picture/Model/Chart/Map etc.</li><li>• Using Multimedia</li><li>• Using sound(s) and/or Voice</li></ul>	Visual Perception and/or Word Aural + Visual Perception and/or Word Aural Perception and/or Word
<b>Explanation-cum-illustration</b>	Sabda + Aural and/or Visual Perception
<b>Board Writing</b>	Written Word (Sabda) Inference (Anumana)
<b>Questioning</b> <ul style="list-style-type: none"><li>• Without using Teaching aid</li><li>• Using Teaching aid(s)</li></ul>	Sabda Aural and/or Visual Perception Word  Inference (Anumana)
<b>Probing Question</b> <ul style="list-style-type: none"><li>• Without using Teaching aid</li><li>• Using Teaching aid(s)</li></ul>	Aural Perception+ Sabda Aural and/or Visual Perception + Word  Inference (Anumana) Comparison (Upamana)
<b>Lecture</b>	Sabda
<b>Lecture-cum-Demonstration</b>	Aural and/or Visual Perception + Word



**Applications of Pratyaksha:**

Pratyaksha is actually the basis of all other pramanas. It has a profound bearing on education. It finds prime application at primary level besides secondary level. Visual illustrations, diagrams, sounds, models, images, pictures, odour etc. all fall under the purview of Pratyaksha.



**FIGURE 6: (VISUAL PERCEPTION + WORD)**

**Lesson introduction skill (samples based on Pratyaksha and/or Sabda)**

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**(Topic-Shahjahan)**

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S.No.	With Teaching Aid (Visual Perception + Word)	Without Teaching Aid (Word)
1	Name the building shown in the picture. (The Taj Mahal)	Which Mughal emperor propagated Din-e-Ilahi system in India?
2	In which city is it situated?	Who succeeded Akbar the great as his heir?
3	Name the Mughal emperor who built it.	Name Jahangir's son who built Taj Mahal.
4	What do you know about life of Shahjahan?	Do

**Statement of aim:** Today we shall study about life of Shahjahan in detail.

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**(Topic-Structure of a Leaf)**

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S.No.	With Teaching Aid (Visual Perception + Word)	Without Teaching Aid (Word)
1	What am I holding in my hand?	Name the different parts of a plant.
2	What is its colour?	Name the parts that are green in colour.
3	Name the pigment which imparts green colour to the leaves.	Do.
4	State the functions of leaf.	Tell the name of process by which leaf makes food for plant.
5	What do you know about structure of a leaf?	Do.

**Statement of aim:** Today we shall study about *Structure of a leaf* in detail.

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The next lesson introduction that may follow the above lesson plan can be '*Types of leaves*'. If this topic is being introduced afresh (without the foregoing plan) the same questions (up to ques. 4) may be asked to introduce the topic. Ques. 5 will get changed as:

**'What do you know types of leaves?'** The statement of aim will also get changed.

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**(Topic-Types of Fraction)**

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S.No.	With Teaching Aid ( <i>Visual Perception</i> + <i>Word</i> )	Without Teaching Aid ( <i>Word</i> )
1	Tell total number of parts that you see in the figure?	What are natural numbers?
2	How many parts are shaded in this figure	State a few examples.
3	How do we represent it in the form of a fraction?	What are fractional numbers?
4	What is the numerator in this fraction?	Give some examples of fractions.
5	State the denominator of this fraction.	What do you know about types of fraction?
6	What do you know about types of fraction?	----

**Statement of aim:** Today we shall study about *Types of fraction* in detail.

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**Sample questions based on Anumana (Inference): Questioning (Sabda) + Inference (Anumana).** (Here, the teacher can also employ *Prompting* skill to give clues.)

Q. I am a four sided geometrical figure. I have two equal diagonals that bisect each other at 90 degrees. All of my sides are equal. Identify me.

Q. This political leader led the famous Dandi March in India. He is also known as Father of the Nation. Identify the leader.

Q. I am the substance which helps the leaves in photosynthesis. I also impart green colour to the leaves. Who am I?

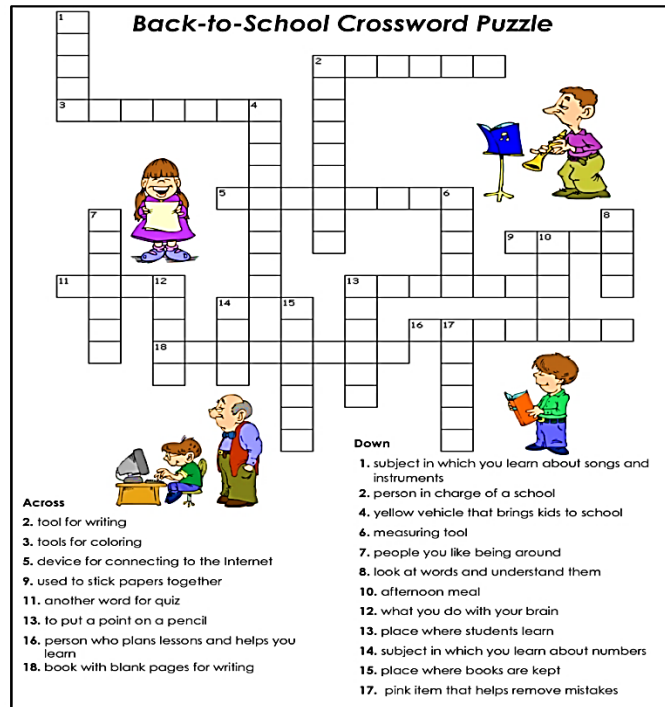
Q. I am found in Citrus fruits. I am also known as ascorbic acid. What am I?

Q. This part of speech qualifies the noun. It is placed before the noun it qualifies. Identify it and give two examples.

Q. This poet authored the famous book '*Gitanjali*'. He is also the first Nobel laureate of India. Identify the poet.

Q. This famous scientist invented *gramophone*. He is also the inventor of *electric bulb*. Name this scientist.

(*Questions based on graphical representation of data, number series, syllogism, cloze test, numericals, crossword puzzles, finding acid and basic radicals in the given salt, such questions as 'what do you infer/conclude?' etc.*)



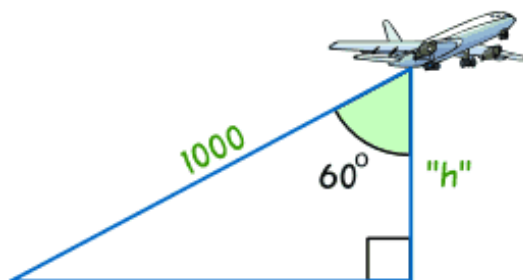
**FIGURE 7: CROSSWORD PUZZLE (INFERENCE + WORD)**

**Applications of Upamana (Comparison):**

- When the science teacher teaches ‘Types of Lever’, he/she should first explain (Verbal Testimony) the different conditions (varying positions of *Fulcrum*, *Load* and *Effort*) by making use of a teaching aid (*Visual Perception*) that shows schematic representations (Illustration). To supplant this explanation, the teacher should show the students at least two examples of each of the three different cases so as to make the concept clear in their minds. Now *Upamana* can be made use of to come into play. For this, the teacher should show some concrete objects (different from those previously cited as examples) corresponding to various types of lever and ask the students to identify the Lever type. Herein, the student actually employs *Comparison* (Upamana) to identify the type of lever on the basis of varying positions of *Fulcrum*, *Load* and *Effort* by making a mental comparison of the similarities encountered based on Analogy. The teacher must also play an active part in the process by giving certain clues as and wherever required.
- *Another interesting example:* The teacher burns different objects made of wood viz. ice-cream stick, splinter etc. (Demonstration) in front of students (Visual perception) and asks them to sense the peculiar odour (Olfactory perception) of burning wood. Now the teacher burns pieces of different types of paper (glazed paper, filter paper, note-book sheet etc.) and again asks the students to sense the odour of burning paper (Olfactory perception) and puts the question, ‘What do you conclude from the similarity in the two odours?’ The

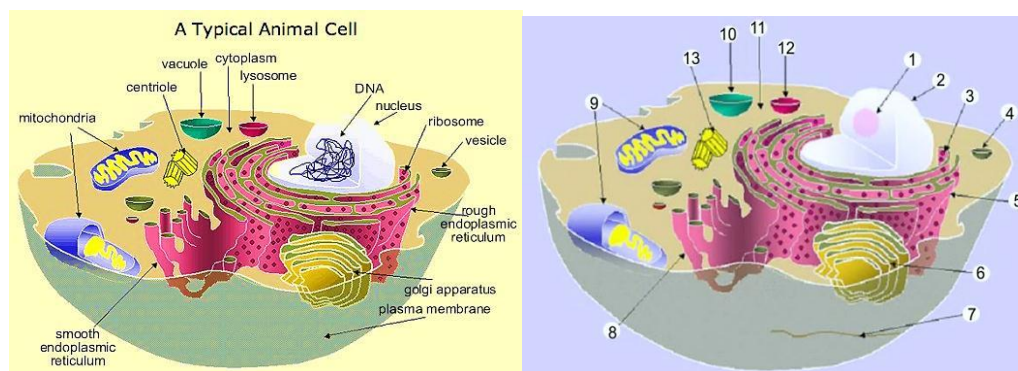
students ponder over this and on the basis of *Upamana* answer that *the paper is made from wood*. (This is related to *Anumana* too)

- The mathematics teacher presents Trigonometry based '*Height and Distance*' numerical problems and asks the students to find the similarity between t-ratios (right angled triangle) and the numerical problems in question. The teacher should, however, not give the direct answer but ask the students to compare the two situations and give certain clues to aid the students.



**FIGURE 8: HEIGHT AND DISTANCE PROBLEM (UPAMANA)**

- Similarity between *Solar system* and *Structure of atom* roughly corresponds to analogy (*Upamana*).
- Simile and Alliteration (figures of speech) roughly correspond to analogy.
- Questions based on Analogy (*Teacher : Student :: Doctor : Patient*), label the diagram type.



(Visually perceived earlier)

(Labeling on the basis of similarity)

**FIGURE 9: LABEL THE NUMBERED PARTS OF AN ANIMAL CELL (UPAMANA)**

**Some noteworthy suggestions:**

1. The teacher gets his/her theory of teaching from the Philosophy of education. Teaching methods are intimately connected with the philosophy of education the teacher holds. The true knowledge of *Pramanas* is necessary for both teacher-educators and prospective teachers. The teacher-educators need to analyse how specific *Pramana(s)* is/are

related to different teaching skills. *Prospective teachers must also be imparted this very knowledge.*

2. As regards Pre-teacher education programme, the subject concerned teacher educators must train pupil-teachers through Micro-teaching skills practice session. For achieving this, *Law of Exercise* (one of Thorndike's laws of learning) be kept in mind. Accuracy and precision of the teaching skill(s) in question should be laid stress on in the light of significance of particular *Pramana(s)*.

3. Orientation programmes and workshops should be organized from time to time emphasizing the correlation of Teaching skills with the *Pramanas* as well as highlighting the effective and efficient use of same in teaching-learning process.

4. Although Philosophy is considered to be the foundation of any subject and is the mother of all sciences, yet this very subject is thought to be dry and boring by a majority of people and students reason being that only *cognitive domain* is kept in mind and not the *affective domain*. Hence, first and foremost, interest should be created in its learning and teaching. Mere delivering monotonous lectures or dictating notes won't do any substantial good. The basics of the subject should be taught in as much interesting manner as possible. (Prospective teachers should be made to realize the value of Educational Philosophy). The best approach is to cite as many real-life examples and excerpts as possible. In fact, the *Pramanas* should be taught by making use of corresponding *pramanas*. What is being emphasized here is the application of *Law of Readiness* and *Law of Effect* (two of Thorndike's laws of learning).

5. Various *Shikshan Vidhis* (teaching methods) be employed by teachers (teacher-educators too) to create interest and make the concepts clear in the mind of students (teacher-trainees too). Teacher-educators must tell prospective teachers how various teaching skills (or *Vidhis*) are related to *Pramanas*. For example:

- *Vyakhya* (Explanation/exposition) – Verbal testimony (Oral word)
- *Dridhtant* (Illustration) – Visual perception, Mental perception, Verbal testimony
- *Pradarshan* (Demonstration) – Visual perception
- *Dridhtant- vyakhya* – (Illustration-cum-explanation) – Visual perception + Oral word
- *Prashnottar* (Question-answer) – Oral word
- *Tark* (Logic) – Inference
- *Katha-kathan* (Story telling) – Mental/visual perception + Oral word
- *Vaad-vivaad* (Discussion and debate) - Oral word
- *Prayog* (Experimentation) – Perception (Visual/Aural/Olfactory etc.)

6. Most of the teachers take recourse to monotonous lecturing (*Sabda*) or make the pupils simply read the text-book matter (*Sabda*). They don't make painstaking efforts to make effective illustration (*Pratyaksha*/Visual perception) or make lively and effective demonstration (*Pratyaksha*/Visual perception) or make use of story telling (*Mental perception*) or evaluate pupils' learning by asking apt questions i.e. lower order/ middle order/ higher order (*Anumana*/ *Upamana*). As far as possible, the teacher should not get adhered to just one *Pramana* but make use of a balanced combination of various *Pramanas*. Strategy for this can be made during *Pre-active* phase of teaching so as to have a smooth sailing during *Interactive phase* of teaching. Last but not the least, the teacher should evaluate his/her own teaching (strategy, presentation of content, achievement of pre-determined objectives) during the *Post-active* phase of teaching by pondering over such points as 'were the *Pramanas* used well?', 'did the strategy of employing the *Pramanas* work well or does it need any further improvement?', 'were the pre-determined objectives effectively and efficiently achieved as regards the use of *Pramanas* or does this need any further improvement?'. **Rusk** aptly remarks, "Teachers who assume that they can afford to ignore philosophy pay the penalty of their neglect, for their efforts, lacking a coordinating principle, are thereby rendered ineffective." Suffice it to say, the teacher should keep philosophizing. This is nothing but the essence of Philosophy i.e. perpetual quest for knowledge.

7. As regards *Sabda*, teachers must take care of the four parameters (as discussed above) and authenticity of words during lecture, exposition, discussion, questioning etc. In case of illustration, demonstration, multimedia etc. *Savikalpa pratyaksha* (determinate perception) should be kept in mind.

8. Subject-specific teachers i.e. **Science / Mathematics / Social Sciences** (History, Civics, Geography) / **Language(s) / Commerce / Economics / Drawing / Computer / Music** should make apt use of *Pramanas* in a rational and logical manner as under:

- ✓ Explanation, Lecture, Exposition – *Sabda*
- ✓ Discussion, Debate, Quiz – *Sabda*
- ✓ Illustration / Demonstration – *Pratyaksha, Sabda*
- ✓ Laboratory method – *Pratyaksha, Anumana*
- ✓ Reasoning (Induction/Deduction/Analysis/Synthesis), Logic – *Anumana, Upamana*
- ✓ Questioning – *Sabda*
- ✓ Questioning (using Teaching aids) – *Sabda, Pratyaksha, Anumana*

- ✓ Experimentation (Laboratory) - *Pratyaksha, Anumana*
  - ✓ Narrating anecdotes – *Sabda*
  - ✓ Story telling – *Sabda*
  - ✓ Dramatization, Role playing - *Sabda, Pratyaksha*
  - ✓ Developing Chalkboard summary – *Sabda*
  - ✓ Problem-solving – *Sabda, Anumana, Pratyaksha*
9. Other skills related to teaching viz. **Stimulus variation, Pupil-Participation, Skills for Classroom Management, Recognizing Attending Behavior** etc. covertly capture the very essence of Philosophy and should therefore be well practiced.
10. The teacher must keep in mind the use of various components of different teaching skills apropos *Pramanas*.

### **Conclusion**

Philosophy is the quintessence of teaching and learning. It empowers the teacher with the faculty of ratiocination to devise objectives and strategies to achieve those objectives. Though, philosophy is no substitute for the teacher's knowledge, it is certainly necessary for his enlightenment. History bears eloquent testimony to the fact that all great teachers and sages had been great philosophers of their own times and vice versa. The epistemological facet of *Shad Darshanas* of Indian Philosophy is very rich and even today guides us in teaching-learning process. It has been rightly remarked by **P.C. Wren**, "As is the teacher, so are pupils." The teacher educators ought to have a true knowledge of the essence of Educational Philosophy, only and only then would they be able to infuse it into prospective teachers. **K.L. Shrimali** aptly remarks, "Thus, not merely must the teacher have a philosophy of education, he must come prepared to develop among his students a philosophy of life." Add to this they also have to be pedagogically skilled. The true knowledge of Educational Philosophy is a *sine qua non* for a teacher. It helps the teacher realize the goals of education. It is a like a Mariner's compass that helps the teacher navigate the vast ocean of Knowledge (Curriculum) in the pursuit of journey called Education. If teacher is like a sailor, the students like the passengers, the desired destination as the pre-determined goal of education, the sailing of ship as the educational journey, the vast ocean as the curriculum then the Philosophy is like the Route map/Mariner's compass that helps the teacher reach the desired destination in the most efficient and effective way. The sound knowledge of Philosophy specifically Epistemology is essential for a teacher. The teacher educators need to understand well how *Pramanas* are interrelated with the teaching skills and teach the same to the prospective teachers. Philosophy is the incessant quest for knowledge and wisdom. (*The*



author could also write the present research paper in keeping with the very essence of Educational Philosophy.) The preceptor ought to keep searching for knowledge and the best possible ways to transfer the knowledge by making apt use of prominent *Pramana(s)*. **Plato** aptly remarks, “He, who has a taste for every sort of knowledge and who is curious to learn and is never satisfied, may be justly termed a philosopher.” He/she must understand well the different components of various teaching skills in the light of *Pramana(s)* as well as the apt use of them during teaching-learning process in order to effectively and efficiently achieve the pre-determined objectives. The teacher must also employ philosophy as a tool for his/her own learning. The following words of **Rabindranath Tagore** capture the very essence of Philosophy, “A teacher can never truly teach unless he is still learning himself. A lamp can never light another lamp unless it continues to burn its own flame. The teacher who has come to the end of his subject, who has no living traffic with his knowledge but merely repeats his lesson to his students, can only load their minds, he cannot quicken them.” The teacher imparts (Jnana) knowledge to the educands but his personal stamp (indelible impression) is always in the form of philosophy of life. What the great teachers have given to the world is philosophy and not information.

### **References**

- Sharma, S.P. (2005). *Teacher Education: Principles, Theories and Practices*, New Delhi: Kanishka Publishers
- Singh L.C. & Sharma R.D. (1987). *Micro-teaching – Theory and Practice*. New Delhi: Department of Teacher Education, NCERT.
- Passi B.K. & Lalitha M.S. (1977). *Microteaching in Indian Context*. Indore: Dept. of Education, Indore University.
- Chaube, S.P. & Chaube, A. (2002). *Foundations of Education*. New Delhi: Vikas Publishing House Pvt. Ltd.
- Pachauri, A. (2014). *Shiksha ke darshnik siddhant*. Delhi: Navlok Prakashan.
- Madaan, P. (2015). *Shiksha ke darshnik evum samajshashtriya aadhaar*, Agra: Agrawal Publications.
- Sharma, R. N. (2005). *Textbook of Educational Philosophy*. New Delhi: Kanishka Publishers & Distributors.
- Ruhela, S.P. & Nayak, R.K. (2015). *Philosophical Foundations of Education*. Agra: Agrawal Publications.
- Sharma, C. (2009). *A critical survey of Indian Philosophy*. Delhi: Motilal Banarsidass Publishers Pvt. Ltd.
- Image source: Google images.