

A Review of Teaching and Learning Skills in Ayurveda on Current Perspectives

Dr. Sushil Kumar Dubey¹, Dr. Ramesh Kant Dubey² & Dr. Anurag Pandey³

¹Assistant Professor, Department of Kriya Sharir, Faculty of Ayurveda,
Institute of Medical Sciences, Banaras Hindu University, Varanasi

²Lecturer. Deptt. of Swastha Vritta, Govt. Ayurvedic College & Hospital, Varanasi

³Assistant Professor, Department of Vikriti Vigyan, Faculty of Ayurveda, Institute of
Medical Sciences, Banaras Hindu University, Varanasi

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ABSTRACT

Ayurveda is an ancient science of Indian origin. India has the rich heritage in the field of knowledge and education. The importance of ancient sciences such as Ayurveda and Yoga is being recognized and appreciated at national and international levels. Adhyayan (learning) and Adhyapan (teaching) are important aspects of education system. Ancient education system in India was based on Gurukul and Guru Shishya Parampara (Teacher-Disciple Tradition) which was also followed in Ayurveda. At present education system has been integrated with modern tools and technologies which are being incorporated in teaching and learning of Ayurveda. The modern learning styles include listening and reading, observing and imitating and doing while various teaching methodologies include lecture method, discussion method, demonstrations, field trips, panel discussions, group discussions, question answer method and so on. There is sufficient evidence in available ancient literature which indicate the prevalence of initial forms of the most of these learning and teaching methodologies in ancient time. The present paper deals with critical review of ancient and current skills of teaching and learning in Ayurveda.

Short Running Title: Teaching and Learning Skills in Ayurveda

Keywords: Learning, Teaching, Adhyayan, Adhyapan, Guru Shishya Parampara

1. Introduction

Ayurveda is regarded as one of the ancient most science of life in the world, which is having its root of origin in *Vedas*. Teaching and propagation of *Vedas* were dependent on *Guru Shishya Parampara* (Teacher-Disciple Tradition) wherein the knowledge was transmitted by teacher to the disciples directly by speech and hearing method that is why *Vedas* were also known as *Shruti* (gained by hearing). The same method of teaching was also used for *Ayurveda* till the development of writing materials such as ink and paper made of *Bhoja patra* (Bark of *Betula bhojpatra*). This led to formation of *Tantra* such as *Agnivesha Tantra* and *Samhita* like *Charaka Samhita*. There has been gradual evolution of teaching and learning methodologies through historical periods i.e. pre *Vedic* period (Before 10000 B.C.), *Vedic* period (10000-500 B.C.), *Samhita* period (200 B.C.-400 A.D.), and medieval period (400 A.D. -1600 A.D.) and modern period (1600 A.D. to till date).

In pre *Vedic* period (Before 10000 B.C.), Human beings were in primitive stage of civilization. Human used to learn only from experiences and no language was developed.

In *Vedic* period (10000-500 B.C.), language was well developed and knowledge from various experiences of different peoples was enhanced which was then converted in the form of mantras. Thus vast knowledge could be summarized and transmitted to next generation as *Shruti* i.e. heard knowledge.

In *Samhita* period (200 B.C.-400 A.D.), *Guru –Shishya Parampara*/ “*Gurukula*” system of education was main way of teaching. A teacher or ‘Guru’ used to live with his family in a place called as “*Gurukula*” and trained the students.

Various *Ayurvedic* texts were written and *Ashtang* division of *Ayurveda* was done. Experts of various branches used to teach their disciples in *Guru Shishya Parampara*. Group discussions (*Sambhasha*) were important method of enhancing knowledge.

In medieval period (400 A.D. -1600 A.D.), above methods of teaching were utilized but Muslim invasions in this period caused destruction of Indian education system.¹

Teaching in modern period (1600 A.D.to till date) .This is the modern scientific era with advent of modern tools and technology. The *Gurukula* system of education had to suffer a setback during the medieval and colonial periods of Indian history.²

Presently, *Ayurvedic* education in India is regulated by central council of Indian medicine (CCIM) which with the prior approval of Government of India has prescribed minimum standard requirements (MSR) for *Ayurveda* Colleges. The MSR includes norms for infrastructure, teaching and training facilities, student –bed ratio, hospital departments etc.³

Various modern teaching methodologies include lecture method, discussion method, demonstrations, field trips, panel discussions, group discussions, question answer method and so on .⁴The root of all these resides in ancient teaching and learning skills.

2. Objectives

1. To study ancient skills of learning and teaching in *Ayurveda*.
2. To study modern skills of learning and teaching
3. To correlate ancient and modern view of learning and teaching

3. Materials and Methods

The ancient teaching and learning methods available in *Ayurvedic* classical books were examined and literature regarding modern teaching and learning methods were also studied and collected from various books and internet .The methodologies of teaching and learning from both streams of knowledge were compared and critically analyzed.

4. Ancient Teaching and Learning Skills

In Ancient India, the teaching and learning was based on “*Gurukula*” system of education which was also followed in *Ayurveda*.. A “*Gurukula*” was a place where a teacher or “*Guru*” and students lived together like family members. There were three ways for obtaining the knowledge and proficiency in the subject i.e. *Adhyayanam* (learning), *Adhyapanam* (teaching) and *Tadvidya Sambhasha* (discussions) with the learned persons.⁵

Before the learning (*Adhyayan*) process is begun, the disciple should examine the *Shatra* and *Acharya* and the one with the highest qualities should be selected.

1. Examination of the *Shastra* (Treatise)-The *Shastra* should be prepared and recognized by the experts of the concerned field. It should have well arranged matter, easy to understand and free from errors.
2. Examination of the *Acharya* (Teacher) –The teacher should have good theoretical as well as clinical and practical knowledge of the subject .He should have high moral character and no ego besides having good behavior with the disciples.

After being satisfied with the *Shastra* (Treatise) and *Acharya* (Teacher) the scholar should start the study of the Discipline /Treatise by serving the teacher.

3. Method of learning /Study

After completing daily regime and rituals, the *Shastra* should be practiced regularly at appropriate place in sufficiently loud voice and suitable pronunciation in the morning, afternoon , evening and night.

Before teaching (*Adhyapan*) the teacher should examine the disciple. The Disciple should be obedient, laborious and should have high moral values, good conduct, good health having no infirmity. Thereafter teaching of the *Shastra* (treatise) should be started giving disciplinary instructions to the disciple after induction ceremony of the students. *Shusruta* has mentioned six qualities of a surgeon as *Shauryam* (courage), *Ashu Kriya* (quick action.), *Shastrataikshyanam* (sharp instruments), *Aswedavepathu* (no sweating or tremors in emergency ie should not be frightened) , *Asammohasha* (must not become hopeless) ⁶ as qualities of a surgeon .If students having these qualities are encouraged to study the surgery specialty; they will definitely become good surgeons.

The teacher should explain each *Shloka* (Sentences and words) with their meaning, the disciple should hear and learn them carefully.⁷

In *Charaka Samhita* it has been stated that a person *Ayurveda* should be able to explain the whole text, its different sections and chapters and specific topics in each chapter distinctly, and this is done by *Vakyasha*, *Vakyarthasha*, and *Arthavayavasha*.

- 1) *Vakyasha* - means reading the *Sutra* as it has been stated in the treatise.

- 2) *Vakyarthasha* – It is the meaning obtained after appropriate understanding and interpretation of a *Vakya* or sentence.
- 3) *Arthavayavasha* –These indicate the words which are difficult to understand and require special attention.⁸

The different subjects included in the treatise should be learned from their respective experts. It is essential that the disciple should have fare knowledge about other basic subjects /treatise related to the main subject or treatise .A good scholar is supposed to have knowledge of multiple subjects.⁹ The scholar was supposed to observe clinically and practically all the procedures and treatments performed by the teacher.

Experimental knowledge was also imparted to the medical scholars in the form of *Yogya Karma* (operative surgery) like *Bhedan* (incision) over bladder of dead animals, *Bandhan karma* (bandaging) on parts of a dummy and so on.¹⁰

Once the teacher was satisfied with the theoretical and clinical knowledge as well operative efficiency of the scholar and getting permission from the Rular (*Raja* or administrator) then only the scholar was allowed for *Vishikhanupravesha* (independent practice) .¹¹

Sambhasha (Discussion) was a method of increasing knowledge in *Parishad* (Conferences) .Discussion was done with the men of his own profession .It helps to clarify the much obscure point and sharpens the mind of the scholar and ultimately helps to make expert of his field. It resembles with conferences of the present day. *Sambhasha* (Discussion) may be friendly discussion or hostile with the purpose of defeating the opponent with the knowledge.¹²

In *Ashtang Hridaya* three terms have been mentioned in the context of learning ie *Paatha*, *Avabodha* and *Anushthana*. *Paatha* implies ‘to make by heart’ likewise repeated

reading or reciting *Shlokas*. *Avabodha* means the pattern of understanding the *Shastra*. *Anushthana* means following the methods/guidelines as quoted in texts .*Arunadutta* in his commentary on *Ashtanga Hrudaya Sutrasthana* 1st *Adhyaya* explains the teaching methods and stated that a teacher should explain every verse with following points. (1) *Padatah* –Word to word.(2) *Arthatah* – Meaning of the word.(3) *Prayojanatah* – to explain Utility (4) *Chodyatah* – to raise Doubts/questions (5) *Pariharatah* – To clarify the doubts.(6) *Sambandhatah* – Relation with the aim.(7) *Abhidheyatah* – Subject matter to be explained .¹³

5. Modern Learning and Teaching Skills

Learning is the relatively permanent change in a person’s knowledge or behavior due to experience.¹⁴ Learning styles include listening and reading, observing and imitating and doing. There are various methods for teaching such as lecture method, demonstrations, field trips, panel discussions, group discussions, question –answer method, role playing, and lecture with other activities like herbal diet plan according to the diseases with the cooking¹⁵ and so on.

A. Lecture method

The lecture is the words spoken by the instructor. It is a ‘verbal –symbol’ medium, offering a relatively passive and un-stimulating experience for learners. It is used by an expert to impart knowledge to a large group in a short period of time. It is easy and convenient to convey most information efficiently.¹⁵

This method facilitates large-class communication .The lecturer should make constant efforts to find out student problems and engage the students to give verbal feedback. It helps to arouse interest in a subject if the teacher has effective writing and speaking skills.

B. Demonstrations

A demonstration is a carefully prepared presentation to show how to perform a skill or procedure .Here a procedure is carried out step by step before the audience. The clinical teaching in hospitals is based on demonstrations.¹⁶

These are illustrated lectures or presentations useful for psychomotor objectives and can be used to illustrate interpersonal skills, communication or counseling but it requires equipments and time.

C. Field trips

These permit the learners to experience sensory expressions which could never occur in classrooms or conference rooms.

D. Panel Discussions

These are short lectures by a variety of people .Each speaker concentrates on a single subtopic delivering a unique thesis and relating that thesis to the unifying objective.

E. Group Discussion

In this method, individuals are active participants who learn by exchanging ideas through verbal responses in one to one or group setting. It is good for higher level cognitive and affective objectives.

These are conversations about a topic among two or more participants generally facilitated by a discussion leader.¹⁷

A discussion may be done after a presentation or a demonstration. Class discussions enhances student understanding, add context to academic content, broaden student perspectives, reinforce knowledge, build confidence, and support community in learning. It can be either facilitated by a teacher or by a student. The discussion may vary widely, depending on the subject matter and format of the course.¹⁸

F. Question –Answer Method

In this method the teacher begins the lesson by some open –ended (that can not be answered by a simple ‘yes’ or ‘no’) question and the students are required to respond.

G. Role Playing

In this method the participants act out a situation in front of the rest of the group. The participants are given a situation described in detail and assigned a role to play. Role players and observers are aware of the general situation, but individual role players may be the only ones knowing the intricacies of individual roles .After completion of the role play it is discussed by the entire group. ¹⁹

6. Discussion

Learning is a relatively permanent change which is usually brought about intentionally. It is the change acquired by developing a new skill, understanding a scientific law, changing an attitude. Teaching is a set of events, outside the learners which are designed to support internal process of learning. Teaching (Instruction) is outside the learner on the other hand learning is internal to learners. Learning is both a motive and behavior but only behavior is seen, learning is internal, performance is external. ²⁰

Teaching and learning of Ayurveda in ancient times was based on *Guru Shishya Parampara* (Teacher-Disciple Tradition). The disciple used to learn directly from the teacher about the particular subject under his close supervision as a family member .Both theoretical and practical or clinical knowledge was imparted to the scholar and once the *Guru* got satisfied with his knowledge and experience then only he was given permission to practice his knowledge in the society. In a study *Guru Shishya Parampara* as a method of teaching has been found to be highly effective in current era also. When ancient method of *Adhyayan* (learning) and *Adhyapan* (teaching) and *Sambhasha* (discussion) was used students improved decision making skill, co-ordination and developed interest in the subject. The repetition of topic helped to clear the basics and improve the level of confidence that helped them in clinical classes. Student assessment test record showed improvement in the academic performance of student.²¹

A lot of emphasis had been given on selection of treatise and then that of teacher in ancient times. The teacher was also expected to assess the qualities of a student before going to teach. These components of learning and teaching are present in current teaching practices also in the form of entrance test, selection of teachers by expert committees and proper framing of syllabus as per subject matter and level of the scholar which are nothing but the advancement of ancient methods.

Demonstrations help to raise student interest and reinforce memory retention because they provide connections between facts and real-world applications of those facts. Lectures, on the other hand, are often geared more towards factual presentation than connective learning. Lecture method as well as demonstration was used as a teaching method in ancient times. Lessons were taught to disciples by lecture method .In *Charaka Samhita*, it is mentioned that *Bharadwaj* taught Ayurveda to many *Rishis* willing for it. ²²

Use of demonstration method can be seen as *Yogya Karma* (operative surgery) like *Bhedan* (incision) over bladder of dead animals, *Bandhan karma* (bandaging) on parts of a dummy and so on in *Shushruta Samhita*.²³

Only theoretical knowledge about medicinal plants²⁴ is not desired but one should be proficient in their practical use also. Acharya charaka has advised to get practical knowledge of plants from people living in forests which is again example of field trip method of teaching.²⁴ Discussion method has been used as different *Sambhasha parishad* like discussion about number of Rasa (taste) in chapter 26 of *Sutra Sthana* of Charak Samhita.²⁵ Question –answer method has been use many times in *charak Samhita* for in chapter 17 of *Sutra sthana* questions were asked by *Agnivesha* and answered by *Atreya*. ²⁶

Ayurveda suggest that in order to get expertise in a subject one should have the basic

Knowledge of the concepts and other teaching and learning methods should be adopted which help to acquire more and accurate knowledge in the subjects while practical training should be provided for application of that knowledge. Study of a single science gives only limited understanding. Therefore one should also get knowledge of other sciences. Science, both theoretical and practical, should be learned from experienced teachers.²⁷

Education pattern of *Ayurveda* at present is based on modern science, though its anatomy, physiology and other subjects contains its own *Siddhant* (basic concept) e.g. *Tridosha*, *Panchmahabhuta*. It is not possible to explain accurately the basic concept of *Ayurveda* on the basis of modern science, so it is essential for *Ayurveda* to develop its teaching learning skill according to its own need. At present post graduate teaching is available in about 14 specializations of *Ayurveda* which are based on the pattern of specializations of modern system of medicine and purely *Ayurvedic* specializations of *Ashtanga Ayurveda* such as *Bhootavidya* (*Ayurvedic Psychiatry*) ,*Rasayana* (*Geriatrics*) and *Vajikarana* (*Aphrodisiacs and Eugenics*) have been neglected at higher study levels. In fact education in *Ayurveda* should be based on its own fundamental principles and divisions ie *Shodasanga Ayurveda* ²⁸ ie (16 divisions of *Ayurveda*). It is recommended that teaching of *Ayurveda* in modern era should be integrative in nature whereby ancient as well as modern skills of teaching should be used simultaneously without distorting the ancient knowledge. Ancient method may be highly effective in learning of classical texts. Memorization of *Shloka* should be encouraged as *Shloka* help to remember large amount of information in few words. Studies have also proved beneficial effects of memorizing *Shlokas* from early life. MRI scans show that memorizing ancient mantras increases the size of brain regions associated with cognitive function.²⁹ In order to get growth of *Ayurveda* as a great banyan tree its education system should be like a tree having root and branches alike and not like a tree having different roots and branches.

7. Conclusion

Ancient learning and teaching skills were based on *Guru Shishya Parampara* (Teacher –Disciple tradition).In this system the disciple used to get knowledge under close supervision of the teacher. *Adhyayan* (learning), *Adhyapana* (teaching) and *Tadvidya Sambhasha* (discussions) were important ways of getting knowledge. The ancient methodologies of teaching were used in *Ayurveda* for centuries and were highly effective. The scientific development in recent years has led a lot of improvements in learning and teaching methodologies. It is desired that for perfect utilization of ancient knowledge, teaching and learning of *Ayurveda* should be integrative in nature involving ancient as well as modern methodologies without affecting its fundamental principles.

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