L–2: Technical Teacher as Professionals – *'Guru-Shishya Parampara'*

(गुरु शिष्य परंपरा)

Contributors

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Lesson–2

Technical Teacher as Professionals

'Guru-Shishya Parampara (गुरु शिष्य परंपरा)

Learning Outcome: At the end of this lesson, you will be able to rejuvenate the *Guru-Shishya Parampara* in the context of modern education system.

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1.0 INTRODUCTION

Due to the knowledge and technological explosions and the digital world entering into every sphere of life, the traditional value systems and relationships between teachers and students have also faded quite a bit. Before, these relations vanish into oblivion, it is high time to revive them and find ways of how best the good value system of the '*Guru-Shishya Parampara'* (गुरु शिष्य परंपरा) can be revived.Figure 1 depicts the basic concept of *Guru-Shishya Parampara* where the figure represents the professional level of '*Guru'*, the acceptance and respect that is to be given the *'Shishya'*. The gesture of Guru represents the goodwill that he offers and his assurance to satisfy the needs of '*Shishya*' whenever s/he approaches him. The basic essence of this depiction could be adapted in the present context so that a technical teacher is respected as a professional by the society. This lesson therefore endeavors to help the technical teacher to understand his/her role in this perspective and earn back the honour due to him/her as in the yester years.

Figure 1. Representation of Guru - Shishya Parampara

2.0 GURU-SHISHYA' PARAMPARA

The '*Guru-Shishya Parampara'* (गुरु शिष्य परंपरा)(Teacher-Disciple tradition) is the age-old Indian education and culture. In Sanskrit, 'Shishya' means, 'a Student of a Guru'. Whereas, Parampara means 'an uninterrupted succession' or tradition. It is the lineage of passing knowledge from a succession of Gurus to students through oral tradition. The 'Shishya' stays with his Guru as a family member in the Gurukul and gets holistic education through various ways and means from his Guru. A 'Guru' means a knowledgeable person acknowledged for his mastery in a particular area/field having good attitudes. He transfers knowledge and guidance to anyone; be it a teacher at school, or a master in arts/skills/spirituality. It is the Guru's responsibility to help his disciples' progress and build a strong Guru-Shishya' relationship. The 'Shishya' is expected to be obedient and has to prove his worthiness to acquire the Gurus teachings. Some common characteristics of this *Guru Shishya' Parampar*a:

a) The establishment of a teacher/student relationship. It requires mutual trust, Shishya's respect in the Guru and the Guru's perspective of importance of holistic education
b) This relationship is not a loose one, but formalized by the society by the Guru taking up the initiation ceremony when the *Guru* accepts the '*Shishya'* in a formal function and accepts the responsibility of developing the new 'Shishya' into maturity in all respects.

c) Generally, the 'Shishya' stayed full time with the Guru in the 'Gurukul'. The preaching of the Guru was unique to establish the identity or 'School of Thought' of that Gurukul. The 'Shishya' had to be a very attentive disciple who had to listen to the teachings and experiences of his Guru. He had to assimilate them and then was supposed to briefly systematically record them in the form of unique scriptures called 'Upanishads (उपनिषद)', which means to 'sit near and listen' to absorb.
d) The Gurukul system was founded on *Experiential Learning*. Problem solving and inquiry-based teaching were some of the main strategies followed to impart education. Educational tours (भ्रमण) were common to Gurukul.
e) Consultations with other Gurus or Schools of Thought were held in the form of intellectual debates and discourses (शास्त्रार्थ).
f) 'Guru-dakshina' (गुरु दक्षिणा) was a custom, where the 'Shishya' would give a gift to the Guru as a mark of gratitude**;** it could be monetary or could also be in the form of performance of learned skill. Well known examples of 'Gurudakshina' are available in ancient literature.

3.0 HOLISTIC LEARNING IN THREE DOMAINS

The 'Shishya' (student) typically lives with the Guru (teacher). The relationship requires the student to be obedient and devoted to the teacher. As the student is with the Guru 24x7 hours and 365 days in a year, the knowledge in all respects and in all the three domains of learning is passed on from the teacher to the student through the spiritual, intellectual and emotional bonding between them. The student can see the Guru through and through considering the Guru as a role model. The Guru's level of authority varies based on the tradition.

However, this system of education vanished with the disappearance of Gurukuls and with the advent of more advanced institutional system of education. Having understood this concept; can one think of imbibing such good values into the present education, especially technical education system? It is a million-dollar question that will make every teacher start thinking. As the saying goes, 'if there is a will, there is a way'. But the onus lies on the teacher to have the will and find the way.

4.0 GURU-SHISHYA PARAMPARA IN THE PRESENT TECHNICAL EDUCATION CONTEXT

For this concept to happen, everyone should maintain the intention of being a student or a disciple in every situation, in tune with the T.J. Watson President of IBM Corporation who said 'there is no saturation point in education'. In other words, every teacher and student should have perspective to remain a life-long learner. Presently, it is much easier than thirty years ago, because of the onslaught of the digital and information technology and the smart mobile phones that almost every student and teacher have at hand and the freely available different types of mobile applications.

In earlier days, the *Guru* and '*Shishya'* had to be physically nearby for the knowledge and skills to be passed on to the 'Shishya'. Today also this philosophy could materialise if designed accordingly. Especially, with the internet age, the one-to-one relationship can still be maintained to develop the requisite skills (see figure 2). Rather than spoon feeding, the teacher as a facilitator can be showing the direction where the students should go. Some of the teachers may already be doing it to some extent. But it is high time that every teacher starts using the modern technology. The sooner this can happen, still better, if the roles and responsibilities of the present-day technical teachers are also well known, which are discussed in the following sections in the context of *Guru-Shishya Parampara.*

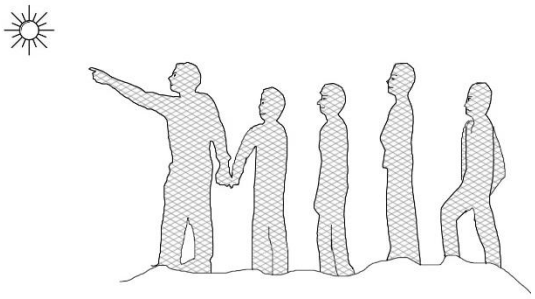

Figure 2. Teacher leading the way

Every technical teacher needs to be fully aware of the requirements of the industry. The term '***industry'*** here means *'any enterprise in the community or corporate sector (wage employed or self-employed), which helps to earn one's livelihood'* [Earnest, 2016]. This could happen by developing close linkages with them through effective liaisoning work. It could begin with a visit, brief internships in the industry, solving small and large problems for the industry. It is the duty of the teacher that the student which s/he is grooming develops the following capabilities:

a) ***Acquisitive*** i.e. the capability to acquire the relevant knowledge by different means, in other words 'learns to learn'
b) ***Adaptive*** i.e. the capability to adapt to different situations so that s/he is not a failure in the new jobs, tasks or projects that s/he will be required to take up during his/her career)
c) ***Innovative*** i.e. the capability to bring out changes which may be at the micro, minor or major levels related to the processes and/or products on which s/he may working.

5.0 ROLES AND RESPONSIBILITIES OF THE TECHNICAL TEACHER

When it comes to the *Guru-Shishya Parampara,* roles and responsibilities of technical teachers need to be seen much more differently and seriously. The major roles of a teacher could be categorised as:

- Instruction related
- Research and documentation
- Management and institution development related
- Consultancy related.

5.1 Instruction Related Roles

It is told that in those days the Gurus used to teach the students with so much sincerity and enthusiasm that it used to leave lasting impressions on the student:

a) The primary duty of today's teacher is also to teach with all sincerity, earnestness so that it will leave indelible impressions on the minds of the students and lead to holistic development of student. However, many of the technical teachers today are deficient in domain specific knowledge, practical skills, industrial experience and even the understanding of basic educational technology principles. You as a technical teacher is required to update yourself with the advances in technology in your domain area and also analyse the curricula of the various courses that you are to teach. This will bring a clearer understanding of the different types of learning outcomes and thereby manage the teaching-learning (T-L) process by providing varied learning experiences to the students to develop hard and soft skills in them for gainful employment.

b) You a professional teacher need to develop various types of (T-L) material such as handouts, 'starters' (stories, pictures real things, video clips and others) to hook the attention of the students, bank of different types of questions and projects, small video clips and also develop one-to-one relationship for understanding individual student's potential and develop the outcomes including affective domain outcomes and learning-to-learn skills.

c) Remember, that you as professional teacher are to prepare the 'student to earn his/her 'bread and butter' (i.e. career of each student). When that realization is there, naturally every teacher has to accept the responsibility of preparing well to deliver the instruction in classroom, laboratory or field work to achieve learning outcomes.

d) Students have to be taught in such a way that you can continuously undertake formative assessment of the students through different means. Provide constructive feedback to the students so that positive learning occurs in every classroom and laboratory situation.

e) Assessing the students and certifying them is also an instructional activity that teachers have to undertake. It has to be borne in mind that in the field of technical education, often, the teachers assess the lower order thinking skills (LOTS), whereas the industry needs only higher order thinking skills (HOTS). The focus should be to prepare students for the world of work.

f) More student-centred methods of instructional delivery should be used, where problem solving and discovery learning has to occur. In the industry all work given to the graduates are in the form of small and large projects. Therefore, it is high time, that the students are accustomed with project works and hence from the first semester itself use of micro projects will go a long way to incrementally develop the various skills to undertake larger projects and capstone projects as required by the industry. This requires that the teachers to provide the right type of guidance so that

the students do all the micro-projects on their own and not get them done from external sources to get high grades/marks. It is not the quality of the project report that is important, but the *process of doing* the project work which is more important so that the various competencies and skills are demonstrated in the process of doing the project. Therefore, *progressive assessment* has to be given greater weightage in project work. In those days the Guru was interested in seeing the process of learning to *integrate various skills* by the student, rather than the finished product given by the student.

5.2 Research and Documentation Role

Development takes place only with research. Research generates new knowledge which gets added to the existing 'body of knowledge'. Any organization that does not undertake research may soon cease to exist and there are umpteen such examples. Therefore, after teaching, the first major role, of a technical teacher is to undertake small and large researches. For the research to be more relevant, the teacher needs to be in close touch with the society/industry from where the problems that require solutions emerge out. This can at the individual level or by teaming up with peers and/or with the students. But, every teacher should take the initiative to find the problems which require research.

Documentation has been a weak area in the Indian research scenario. Researches big or small in the area of engineering education, or industry will throw up a number of new models and new methods that can be adapted for which the research is undertaken. Much of the knowledge during the *Guru-Shishya Parampara* days was often verbal as it was passed on to the 'Shishya' that got lost after their lifetimes due to the poor documentation. Therefore, proper documentation both in hard copy and digital form (which can be done better now due to the technology advancements) is necessary for all types of projects – big or small. Therefore, technical teachers need to continuously scan and identify new and emerging areas to undertake small and large researches, which could also form part of M.E./M.Tech. or Ph.D. projects.

ACTIVITY 1

Prepare a write up on the role of the guru in a Gurukul-based system of education and post it in the E-portfolio.

5.3 Management and Institutional Development Role

It is true that the strength of the institute is the faculty. Therefore, the managing the various other activities for *institutional development* is also a role that you have to play and it can be done in several ways. In today's scenario, the first and fore most priority of the engineering institute is to get NBA and NAAC accreditation for survival whereby the corporate reputation of the institute is enhanced. This is an opportunity for the teacher to get involved in the institute development activities.

Connected to the accreditation process are the various extra-curricular and co-curricular activities which create opportunities in which the teacher can involve the students too. The teacher can give his/her inputs in the various types of 'staff development plans' for developing human resources at all levels that the management should take up for the progress of the institute. The teacher should also provide inputs to the administrative authorities regarding the procurement of various types of equipment and other materials, developing Learning Resource Utilization Center as well as allocation of other resources to various departments and centres. The teacher should also get involved in providing assistance in the preparation of institutional budget and conduction of audits.

Planning and organizing the NSS and NCC activities, cultural and sports related activities are also good platforms where the student's exposure to the aspects needed by the society also get developed in the students. Organising 'Tech-Fests', debates, seminars, workshops, national and international conferences, job fairs and the like where the students' involvement can lead to their all-round development, is also very much needed by the society and industry.

ACTIVITY 2

Prepare a write up of about 250 words about ethical practices of teacher for development of the student in the light of 'Guru Shishya Parampara' and post it in the E-portfolio.

5.4 Consultancy Related Role

In the *Guru-Shishya Parampara,* the other major role of the teacher is the consultancy. Consultancy and industry-institute interaction go together. The interaction with the industry will be effective, when it is a win-win situation. The industry will be benefitted when the institute will take up its small and large problems as consultancy to undertake researches to find solutions to these problems. This exercise will not only benefit the teachers both technologically and financially, but will also establish stronger ties with the collaborating industry. In these transactions, the students also get benefitted by way of additional industrial exposure which may lead to enhanced employability.

Another form of consultancy could be, offering continuing education programmes for different categories of their workforce, both in the contact and/or online mode which can help the vertical and horizontal mobility of the industry workforce. Tailor-made education/ training programmes to suit the industry needs are to be designed and offered. Such offerings can also result in national and international conferences and thereby increase the areas of outreach. All these activities lead to development of different types of competencies and skills in the students raising the chances of enhanced job opportunities for students.

Even another form of consultancy is taking part in rural upliftment by taking up rural-based projects where the students can be actively involved. Through such consultancies, the teacher is sensitizing the students of the societal needs of the under-privileged and deprived masses, and thereby creating opportunities for the students to develop virtues of empathy and sympathy. Conferences on concurrent themes should be organized to give an exposure to students with respect to emerging trends.

ACTIVITY 3

Prepare a plan and the related activities with the timelines to organize consultations with neighbouring industries and institutions and post it in the E-portfolio.

6.0 SUMMARY

If some of the activities discussed so far are considered in 'letter and spirit', and the teachers' take an active role, not only in teaching (which is their primary duty), but also in planning and organising with the active involvement of the students, following the paths of empathy and sympathy, to some extent, the *Guru-Shishya Parampara could* be practiced in the present technical education context as well. Therefore, each teacher should individually start practicing the above mentioned activities systematically, in all possible ways. So, do not wait. Get started at the earliest.

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DISCUSSION FORUM

a) Start a discussion on the ***social media*** on some societal issues involving the students
b) Which qualities the teachers should strive to imbibe in their students in the light of 'Guru Shishya'Parampara'? Discuss with your peers and prioritise them.

ASSIGNMENT

Develop a plan to organise a one-day rural activity involving the students.