2018

cprhe research papers **9**

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Evolution of Concepts and an Attempt towards Developing a New Tool of Analysis

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Sayantan Mandal [*]

Abstract

Teaching-learning is emerging as an important area of reform in the global higher education arena due to the changing nature of students, improvement of modern information communication tools, and newer demands from higher education focusing on employability and entrepreneurship. The theories of teaching-learning can be divided into different segments - some discussing teaching- learning in a more general way, and some are more focused towards higher education analysing its complexities. The paper reviews some of the select theoretical concepts in the understanding of teaching and learning in higher education. It discusses different levels of teaching, their focuses and possible consequences on learning. It is observed that teaching and learning in higher education is influenced by various other factors spread across institutional, national and international levels. And to analyse them in a context specific manner, it is important to go beyond the discussion of teacher, students, pedagogy and include other factors into the discourse. This paper argues that there is a need of an analytical tool to better understand teaching-learning process in higher education in a context specific manner. As an effort in this direction, this paper proposes an analytical tool, which is not a theoretical model, but aims to facilitate analysing and understanding teaching-learning from different dimensions.

Introduction

Reform and expansion of higher education in recent times brought the traditional roles of academia under the scanner and as one of the core determinants of quality, 'teaching' has come to the forefront of contemporary discourse. University teaching is questioned and criticised for it's disconnect with society and market. Interestingly, while teaching and learning are considered as a vital core educational activity, and extensive research is being conducted on improving teaching-learning in primary and secondary education sectors, there is lack of substantial research to improve teaching-learning, especially in the developing world. In spite of the focus on excellence (along with equity and expansion) as a national agenda for higher educational reform, teaching-learning has experienced an overall limited improvement. Also, the effort to improve teaching in colleges and universities often came too late and, have been less effective in improving the situation substantially.

The paper also affirms that the teaching and learning in contemporary higher education in several contexts are largely traditional and often ineffective to meet the demands of the learners and that of the market. There is certainly a need to improve it substantially. However, it should be done based on evidences from empirical researches; rather than common perceptions on 'what is best'. In the analytical process, the factors and their influences are to be taken into account, which range from institutional, national to international levels, and help (re)shaping the teaching-learning in practice. It should also be rooted in the theoretical understanding, as at the core, teaching-learning is a process between the teacher and learner(s). The paper argues that the analysis of teaching-learning should be context specific, situated in predefined time and space. This contextual specificity seems important to consider. In the era of globalisation and inter-connectedness, the demands from higher education is getting largely homogenised, but it is the uniqueness of each of the contexts and its dynamic nature, which help analyse the issue in a meticulous way.

In this backdrop, this paper focuses on understanding teaching and learning from different vantage points. This paper is an attempt to discuss the theoretical approaches associated with teaching and learning, their development, and aims to develop a tool by combining the theoretical understandings and influencing factors of teaching-learning, which help analysing the issue holistically with the complexities associated with it. To elucidate the issue and related arguments, the paper is divided into the following sections. After the introduction, the second section highlights issues related to the changing discourse of learning. The discussions also provide the justification of analysing teaching and learning together to understand the issue

better. In the third section, the paper reviews the concerned theoretical development in the field of teaching. The fourth section argues for a context specific approach to understand teaching-learning and attempts to introduce a new conceptual and analytical tool, which helps to understand and analyse teaching and learning in higher education in a context specific way. The fifth section concludes the discussion.

The Changing Discourse of Learning

Recent trends in global educational landscape suggest that the focus is shifting from education to learning (Field, 2006; Jarvis, 2007, 2008). Whereas education opts for a formal and structured system, learning goes beyond these normative meanings and involves all kinds of learning activities taken by the learner. Thus in learning, the focus is on the learner, or in other words, it is more personal, consists more of their inner self. It is learner-oriented and relies on their needs and demands. On the contrary education is largely a top-down notion or in other words, comes from outside sources and teaching gets more priority. Learning, in addition, focuses on formal, non-formal and informal processes of learning and relates more with acquisition of knowledge, skills and competencies. Moreover, learning in a formal sense refers to a comprehensive and meaningful learning, which includes participation from all ages, systems, and considers the liberal, vocational and social aspects. Hence, it could be inferred that learning in today's educational lexicon carries a more practical and desirable connotation than just 'learning', as learning alone could also mean learning negative and undesirable things (such as learning how to steal). However, there are also different dimensions of learning. When learning is defined from a social point of view, it becomes more related to the present socio-economic changes, challenges and works as a key factor for socio-economic development. Learning is then seen more as a tool to achieve certain social goals.

It is therefore seen that by definition, learning is more encompassing than its literal meaning, which expands more than the concept of 'education'. However, why has learning become so important in the present context? Answering to that question, Longworth and Davies (1996) mention eight major global changes. These are: influence of science and technology, restructuring of industry, global demographics, influence of television and other media, changes in the nature of work, focus on the individual, environmental imperatives, new global power and structures. According to them, there are four global trends for enabling learning. They are: increased use of education technology, tools and techniques, greater use of national and international networks, development of cooperative and two- way partnerships

and development of learning organisations and individual empowerment (Longworth and Davies, 1996).

All the above features have profound impact on changing the role of learning. The technological advancement such as, ICT, better and cheaper communication brings the opportunity to experience new kinds of organisations, which are, by nature, global or international. For the traditional education sectors, it brings the following major changes:

In the most technologically advanced countries/ regions, the education system is losing its monopoly on information transmission, as the media, commercial software and the internet, all offer access to information (Lauder et al., 2006). The technological revolution provides the option of online education, which has potential to replace the physical presence of a a teacher with a virtual platform where students can learn on their own with or without the facilitators/ online teachers. At higher education level, this technological revolution may introduce a substantial decoupling of learning from institutional space. Universities are having online degrees and diplomas and even some universities are performing totally at a virtual level. These changes help to inject a new perspective in the education arena; i.e. learners are now responsible for their own learning.

With the changing paradigm shift from state to market centricity, where education is no longer the responsibility of the state, but that of the individuals (or individual learners), learning is playing a major role in today's society. The demand for flexibility and multi-dimensionality drives the issue of learning. However, it is very difficult for any institution to change its system as fast as the changing technology and modify their trainings/ teaching to suit the new demands swiftly. What these institutions can do is to help the students to 'learn how to learn'. This is considered as a core competency in today's developed world (TUNING, 2011).

It could be inferred that 'learning' in its present guise is relevant to many stakeholders ranging from international to local levels. Moreover, the emphasis on 'learning' seems highly significant, because it reduces the traditional preoccupation with structures and institutions and instead focuses on individual. As individuals are responsible for their own learning and up-gradation, the state or the government becomes less accountable. However, it is government's responsibility to provide more options for learning in different ways. From the individual point of view, it equips people to make their choices (Bauman 2005, p.128). It also puts importance on the demand-based learning, where government is less responsible to safeguard its

citizens, as citizens are choosing their learning fields on their own. This realisation of learning, thus, depends on a large degree on the capacity and motivation of individuals to take care of their own learning (Tuijnman and Brostrom, 2002).

It can be seen that, for an individual, learning can work as a tool for personal fulfilment. It creates opportunity for individuals to learn and up-grade themselves to stay competitive and make them flexible and more adaptive learners in different situations. However, things are inevitably more complex in practice, and it can be argued that education and learning is 'never neutral' and always occurs within a 'socio-economic and political context' (Jarvis, 2008, p.58). It has many dimensions, e.g. religious, political, but it is also economic and social. It does not only focus on one dimension at one time, rather it is a multi-dimensional, multi-focal and multi-tasking concept, which has evolved over time and revamped recently.

The Changing Discourse of Teaching-Learning in Higher Education

A major focus in higher education in the 21st century is on learning outcomes. It is different from the traditional input-based teaching-learning in higher education, which focused on the process (Chung, 2011). Reichert (2010) instead emphasised that the focus would be on learning outcome and competencies jointly. With this shift, comes the issue of accountability (Henard and Leprince-Ringuet, 2008). The advent of mass higher education shows that the traditional elitist role of the universities are being questioned. The changing funding patterns and, seeing higher education as a valued investment, prepared the platform to heavily focus on the return of the investment on higher education (Yorke, 2000). With the utilitarian outlook and market-driven development of education, the external demands for quality teaching has increased worldwide.

The focus, although shifting towards teaching-learning to deal with student aspirations and accountabilities to the clients, yet there are major difficulties in defining what is 'good' or 'quality' teaching-learning. As explained by Harvey et al. (1992), there are several ways to perceive what is quality in higher education. It is 'excellence' in traditional conception. However, with the changing educational landscape and growing neoliberal market-based approaches, it can also be defined as 'value for money'. On the other hand, providing value for money over long period of time is 'consistency' from a managerial point of view (Harvey and Stensaker, 2007). Looking at quality from institutional perspectives, it yet again provides another dimension. Perhaps, 'fitness for purpose' can be considered, as institutions try to make students to be efficient and hence, fit to move to the post-study levels.

Interestingly, a common thread, according to Harvey and Green (1993), is that quality is transforming. With this understanding, teaching is teaching if it transforms students' perceptions and the way they go about applying their knowledge to real world problems (Henard and Leprince-Ringuet, 2008).

Realising that globalisation is here to stay, and the competition for the best students and the best teachers will be at the global level, improvement of quality in higher education institutes appear as an unavoidable mandate. For poorly performing institutes, it poses a greater threat of getting perished. The competitiveness further magnified with international university rankings, national assessments and various other measurements of quality in higher education. However, university rankings are often considered biased heavily towards the more easily countable research publication, citation indices, etc. A change of mind-set in many countries and their higher education institutions with regard to the prioritisation of academic teaching and learning in comparison to research is urgently needed (High Level Group on the Modernisation of Higher Education, 2013). As a consequence, several questions are coming to the forefront in national and international higher education sphere to reorient the focus towards the core issue of teaching-learning and importantly the measurement of learning.

The awareness propels the practice from instruction-oriented teaching to student-oriented learning. This renewed focus on learning infers that teaching practices also need a shift from looking at classroom-based education to learning in broader, formal, informal and non-formal spaces focusing on learning outcomes. The link between teaching and learning outcomes has, in fact, put increased importance on teachers and institutions. Identifying new teaching strategies, test new ideas to enhance students' learning outcome has taken the forefront (American Psychological Association, 1997). Along with them, the global consensus calls for improving of evidences and studies related to teaching-learning in different contexts and levels. In other words, 'teaching' is now more intertwined with learning. Together, they form one of the core pillars of higher education. It also means that the mission is not instruction, but rather that of producing learning with every student by whatever means work best (Barr and Tagg, 1995). Consequently, the dominant pedagogic discourse has evolved to a learner-centred focus (Cornelius-Shite, 2007). The interplay between teaching, learning and learning environment influences to discuss the theories explaining teaching-learning processes. Identifying how teaching works, or how students learn or how teachers test new ideas to enhance learning outcome has become the central focus of theoretical discourses.

Theories of Teaching-Learning

The term 'effective teaching' is used in a much broader sense than simply referring to what a teacher can do in a classroom (Harris, 1998). It also consists of managerial and organisational aspects of teaching, including pedagogical processes. The research on teaching can also be viewed from various vantage points and methodological positions. However, despite the difference in approach and point of views, there is a consensus about the generic features of effective teaching (Good and Brophy, 1980).

The first comprehensive idea of effective teaching encompasses sets of teaching behaviuors or teaching skills and as a profession, teaching is perceived as task, which is complex. Teaching, as per this view, can be analysed and correlated to students' success. A surge of straight-jacketed teaching effectiveness with the scores achieved by the students can be observed due to this conceptualisation. The second wave of perspectives moves away from this rather simplistic relational model to a more pedagogically-oriented one. It considers teaching as a mix of pedagogical and operational specifications. The model followed by this stressed on the creative side of teaching, or the artistry of teaching. Teachers' ability to respond innovatively and reflect upon practices were highly valued. Within this perspective, a subtle development begins to focus upon the sustainable professional development and the idea of teacher-training started gaining popularity in academic and policy spheres.

The above-mentioned perspectives guide the discussion in the following section. Teaching behaviour, teaching skills, teaching styles, teaching models and teacher artistry have come out as some of the distinct areas of discussion, which may reveal some of the critical aspects of effective teaching relevant to gain deeper understanding of the discourse of teaching and learning.

Teaching as Behaviour

As a consequence of progress in behavioural sciences, the earliest research in teaching effectiveness focused upon the behaviour and personality of the teacher. Getzels and Jackson (1963) extensively discussed teacher personality traits and their relation with student achievements. The key feature of this approach is the assumption that students can be efficiently programmed to learn. This means, the role of the teacher is to organise information in a careful manner (Skinner, 1954) and to control the rate or the pace of the study. Students study within a frame, with no or limited freedom. This method demands commitment from the student, and if the

student does not learn, it is the responsibility of the teacher to re-plan and redesign the programme to ensure learning.

These views, based on behavioural aspects, were criticised as they neglect the actual classroom events. The practical limitation of this kind of teaching-learning is that it involves a lot of pre-planning and preparation time, which, once prepared, rather rigid in nature and does not permit any sudden unplanned modifications. This method also shifts the responsibility away from the teacher as he/she only needs to follow the pre-defined study material. For the same reason, this is less learner-centric. Although it might be useful for basic vocational training, yet for higher level learning, this method is rather limited in its scope.

The critiques to this approach lead the educational theorists consider actual classroom behaviours into considerations. It considered teaching behaviour as a process, and student achievement as a product. The basic premises considered that an effective teacher behaviour would result in the growth of student knowledge and skills.

The focus of this process-product studies was on the instructional activities of teachers (Harris, 1998). Later, Kounin (1970) introduced a distinction between management and instructional behaviours. Several researches went ahead with this approach and produced extensive guidelines on classroom managements (Reiss, 1982). This approach emphasises on direct instructions as a mechanism to impart greater knowledge gain of the students. The step-wise instructions and their correlations with students' learning and cognitive achievement became the sin qua non for the mantra of effective teaching.

This rather rigid structured approach was criticised later on. Although researches also revealed that there is a positive relation between effective teaching management and student achievements. It also revealed that certain aspects, such as content coverage, time allocated to instruction, engaged time, consistent success and active teaching are the key elements in effective teaching (Brophy and Good, 1986). Nevertheless, this discourse still finds its relevance in modern day measurement of teaching effectiveness, although mostly at secondary level.

Teaching as Skills

Almost parallel to the studies on teaching behaviour, researchers observed a number of perspectives on the skills used for teaching (Harris, 1998). For instance, Leinhardt and Green (1986) argued that teaching is a complex and cognitive skill, based on how to construct knowledge and conduct a lesson and how it should be

taught. Wragg (1984) viewed teaching as a facilitating skill, which enables learning. In this discourse, the aspect of interaction got more priority than instruction of teaching. Kyriacou (1991) and Clark and Peterson (1986) emphasise on active teaching or more interactivity in the classroom.

According to Kyriacou (1991) three important features evolve under this discourse are:

- Knowledge of the teacher about the subject, curriculum and teaching methods has the influence on teaching and learning and can impact one's own teaching.

- Decision making, thinking and reflecting before, during and after a classroom lesson, can have cumulative impact on effective teaching and teaching development.

- Action and overt behaviour by teachers can be undertaken to foster and promote effective learning.

Mortimore (1993), on the other hand, has listed the skills needed to be an effective teacher. According to the list, the organisational skills include the abilities to sort important materials and identify the sources of information. Analytical skills, on the other hand, deal with the organised set of information, and further break them down from its complex forms. The skills to synthesise the information into constructive arguments is another key teaching skill, which helps in building the critical human beings (students). Finally, it is equally important to present the matter to the learners, clarify the information with all its integrity. However, as per Mortimore (1993), the entire process should have a particular goal, which will take into account the particular context. The presentation should be easily understandable and fine tuning is the key to make it better.

Post presentation (or teaching), the job of the teacher is to assess the students. The assessing skills to judge the works of learners, and managerial skills followed afterwards, which coordinate the dynamics of individuals, groups and classes. It can be seen that, Mortimore's idea of teaching as skills ranges beyond teaching alone and includes evaluative and managerial responsibilities as well. This is an important milestone in the development of concepts related to teaching-learning.

Teaching as Artistry

Unlike the previous ones, teaching may also be considered as artistry, where creativity is a core component. This emphasises on personal responsibility of teachers for creating the condition for effective teaching-learning. The good match between a

`teacher and student will result in optimum success in teaching and learning which the approach promotes. The ability to match these two has been termed as 'artistry'. Rubin (1985) clearly mentions that these kind of teachers achieve the qualities by knowing both their subject matter and their students. Since artistry is a highly creative and personalised process, it cannot be summarised into a list of features or pre-defined traits. For the same fact, it is difficult to measure or devise and standardise tool for such purposes. However, the teachers can ignite excitement for learning among the pupils, where playfulness and seriousness blend easily, as the purpose of teaching-learning is clear and goal is sensible. These skills of teachers help them to guide the students with perception, intuition and creative impulse (Rubin, 1985). The teacher opts for a vital inter-relationship with students and supports the ability to evolve and adapt with the changing demands. That is why, being an effective teacher involves capability to engage with the students, know their potential and limitations and respond accordingly.

Teaching Styles

How to teach effectively? This question probably has got the maximum importance in literature. Yet, when we say about teaching styles, it is mostly referred to 'what teaching method is the best'. Bennett (1988) and Galton et al. (1980) explored this aspect and looked into learners' gains in standardised tests and came out with two polarised teaching styles - a traditional and progressive. The findings also show that teachers following the traditional style are generally more effective. Later studies criticised this approach as it was recognised that no single method can be called the 'best' as there are diversities among learners, teachers and learning environments.

Nevertheless, these studies hold critical values as they comment upon the difficulties associated with defining teaching styles and relating them directly with learners' outcome. Several authors (Marton, 1975; Biggs and Tang, 2007) however, also expressed difficulties to find suitable empirical evidences to support their claims of one or few 'best styles of teaching'. It can be concluded that a mix of approaches and styles as appropriate to the topic which works best in certain condition can be considered as the 'best style' in that particular situation. The discussion on teaching models here helps us to understand the context better, as rather than just two extreme styles (traditional and progressive).

Teaching Models

Unlike the early researches on teaching behaviour, models of teaching are not premised on matching behaviour to student outcome. Rather they work on teaching models and emphasise the need of teachers to adopt a wide array of teaching approaches which fosters learning and supports diversity (Harris, 1998).

One of the relevant works carried out by Joyce and Weil (1996), suggests that there are four main 'families' or models of teaching based on types of learning and the orientation of how people learn. These four families are - information processing family model, social family model, personal family model and behaviuoral system family model.

The information processing family emphasises on organising data, sensing concepts and generating solutions to problems. Some, however, also put importance on concept formation and hypothesis testing. This model helps learners to learn how to construct knowledge, as it focuses directly on intellectual capacity. Advanced organising of information is an example of information processing family. Little differently, the social family model of teaching stresses on working together within a social context. This model highlights the importance of cooperative relationships which supports vigorous learning activities such as, producing integrative and productive ways of interacting, which support various types of learning activities. This means the social family model supports co-operative learning approaches and complex forms of learning such as, higher order thinking, problem solving, social skills, team-work and so on. On top of constructing knowledge together, this model thus helps pupils to sharpen cognition through group and interpersonal interactions. This results in productive knowledge creation and builds learners as team members.

The personal family model of teaching and learning, on the other hand, focuses on the individual. This model attempts to design education so that the individuals can explore and understand themselves better. Cluster of personal models of teaching also pays importance to individual perspectives and promotes self-awareness of individuals so that they can become active citizens of the society. The teaching however, has to be non-directive, which fosters student creativity and self-concept development. Essentially, it demands a certain level of flexibility from the teacher.

The fourth model or the behavioural system family models of teaching and learning takes a rather different stance. Following the footsteps of the classical behavioural theories, this one also emphasises on the stimulus and response. The ideas of Skinner (1954) work as an underlying principle followed by Joyce and Weil

(1996), who argue that the success of a teacher is to repeat the matter/ subject/ content until it guarantees a learning effect. Although this model is criticised as well, but there is no denying the fact that certain models of teaching are tested and worked (and working) satisfactorily over a period of time; hence can be considered successful. Moreover, it is found that combining the models yields effective results (Harris, 1998).

Theories of Teaching-Learning in Higher Education

Constructivism

Constructivism came as a major paradigm shift in explaining and analysing human learning. As we would see, constructivism understood learning as a construction of active learners' reorganisation, which is different from the earlier ideas of perceiving learning as a linear process. The conceptualisation perceives learning as a non-linear and complex process. This realm of learning, which was once dominated by Pavlov and Skinner's linear ideas of stimuli and response, promotes the idea that knowledge is constructed by learners. It is the major paradigm shift from its predecessors. The twenty-first century trend is to consider the learning of an individual, which could be very different from any other individual, hence the generalised approaches gradually lose their importance. That is why, the cognitive and social theories of constructivism (Vygotsky, 1978; Bruffee, 1986; and Wertsch, 1991), emphasised the importance of social interaction as the driving force to cognitive development of individuals, which includes internalisation of ideas encountered in the socio-cultural realm (Nyikos and Hasimoto, 1997). The following section discusses this in brief.

Constructivist theories use a wide array of explanations on how humans learn. The core idea is situated on the continuous building and amending of structures in mind that hold knowledge – known as schemata (Fry et al., 2009). According to constructivism, learning will not take place until the schemata changes. It indicates towards the individual transformation where people actively construct their knowledge (Biggs and Moore, 1993). Piaget (1950) and Bruner (1960, 1966) have taken this view forward. Bruner's idea of revisiting knowledge signifies a spiral curriculum and hence, a higher level of understanding about the same subject matter. This indicates that human beings learn by fitting new understanding and knowledge in and with the existing knowledge and, if required, supplementing it to form and understand new knowledge. Hence, to consider learners as blank sheets or empty containers is largely false, as without the pre-existing knowledge, little or no learning will occur.

In 1970s, Marton's research revealed the two extremes of learning approaches – deep and surface under the umbrella of constructivism. Analysing the interaction between a student and a set of learning tasks, Marton (1975) concluded that, in the deep approach, there is a strong intention to learn the meaning, which encourages students to attempt to related concepts and find new meanings of existing understandings. Teachers, who take student-focused approaches, usually encourage students towards a deep approach to study (Prosser and Trigwell, 1999). On the other hand, the surface approach denotes the intention of completing the task, without making an effort to reconstruct the meaning. This superficial level of cognitive processing may lead to the gathering of lot of information, without much of actual learning taking place. Teachers who practice such approaches focus on completing syllabuses and course contents, without putting much effort to analytically perceive them so that it helps to construct the meaning.

Biggs (1987) and Ramsden (1988; 2003; 2004), among others, have taken the discourse on surface and deep learning forward, and relate it with the higher education teaching-learning. Biggs and Tang (2007) have devised a tool consisting of three levels, similar to that of Ramsden (2003). Ramsden (1988) argued that learning is both personal and situational, and is an interactive process. Biggs (1987) added another approach to the study - the strategic or achieving approach, which is associated with assessment. This idea of collaborative knowledge creation is a major part of teacher-student relations and teaching-learning process. The basic argument of the theories are to put importance on collaborative creation of knowledge. It states that learners construct knowledge with their own activities; building on what they already know. Teaching is thus, may not be a matter of transmitting but of engaging students in active learning, building their knowledge in terms of what they already understand. This theory relates itself with the major theoretical principles of adult learning, although focuses on the role of the teacher. Hence, it is important to understand the levels of thinking about teaching, and its effectiveness depends on what we think about teaching (Biggs and Tang, 2007). To explore, Biggs and Tang divided it into three levels of thinking about teaching.

What the Student Is

Teachers at this level focus on the differences between students and often group them into different sections such as 'good', 'poor' or 'average'. At this level, teachers focus on the knowledge and think it is the responsibility of students to attend lectures and understand. If they do not, then they are again labelled as 'poor'. The aim of this teaching is thus constant - to focus on the content or information without much

concern about the capabilities of different learners, their interests and opinions. The organisation of teaching rooms (classrooms) are also reflective of this level, where it is designed for one-way delivery.

Teachers, at this stage, do not usually discuss how the students should receive the content and what their depth of understanding is. However, what the teachers fail to recognise is that if the students do not/ cannot learn, what can the teachers do to change that situation. This reflects in the evaluation pattern where students are evaluated by a given set of pre-defined questions with a schema of marks/ exam scores for 'right' or 'wrong' answers.

What the Teacher Does

Compared to Level 1, here teachers question themselves and focus on what they do. Instead of focusing only on the transmission of information, the teachers stress more on the transmission of concepts and understandings. Learning here is seen as a function of what teacher is doing. These teachers use a variety of techniques; although it is an advancement form of the previous level, it still focuses on the teacher. What teacher does, in terms of what type of teaching techniques she/he is using, how long she/he is providing time to explain critical areas and so on, matter more than what students are actually learning. To execute the teaching sessions effectively, the teachers often set rule, seek clear guidelines, make eye contacts with the students and usually do not interrupt or allow interruptions while teaching is going on. For instance, while lecturing, these teachers often do not stop to answer some questions from the students, rather request them to ask the same post-lecturing.

Biggs and Tang (2007) criticised it by saying that it is still a deficit model and more managerial that facilitate learning as such. Instead of blaming the students for not being able to learn, the teacher takes the blame as here; the teacher uses different methods and if they do not work, she/he takes the blame and tries to overcome them. It seems rather clear that the focus should not be on the skills of the teacher, rather on how it is positively influencing the student outcomes.

What the Student Does

The limitations of levels 1 and 2 bring us to level 3, where the focus is on what student does and how that relates to teaching. At this level, teaching supports learning, and the teachers neither blame the students nor do they blame themselves irrespective of their mastery over variety of teaching techniques. On the contrary, at this level, the teachers' focus is on the desired outcome of teaching- i.e. effective

learning. That means the teacher confronts with two sets of principal questions. One, what it means to 'understand' in order to achieve the learning outcomes and second, what kind of teaching is required to achieve those outcomes. Also, since teaching-learning is a collaborative endeavour, what is the role of students in achieving the level of understanding, is another major concern.

At this level, the entire focus is on the students, and the teacher tries different methods, both established and experimental, to facilitate learning. She/he also puts an effort to make sure that the evaluation of learning is properly done, Quite similarly, Ramsden (1988, 2003) also develops a set of three levels (which Ramsden termed as theory 1, 2 and 3). These are interlinked and depict different stages of teaching styles. Ramsden (2003) explained them as three generic ways of understanding the role of teachers in higher education, where each one has implications on how students are expected to learn.

Teaching as Telling or Transmission

A common practice in many colleges and universities is to define the task of teaching as transmission of content, and it must be instilled in students. Many of the teachers, at higher education level, follow this method, and in a rather 'authoritative' way. The traditional lecture method represents a one-way approach, where the teacher is seen as a source of knowledge. The students, on the other hand, are passive recipients of the wisdom of a single speaker. Based on the empirical evidences, it is observed that in modern classrooms, the teacher practicing the information transmission, delivers the course content using ICT, but essentially follows the same one-way approach of communication (Mandal, forthcoming).

The knowledge or information transfer to the students is seen as 'unproblematic'. Lecturers, who use this technique, think that their job ends with the delivery of the content. The students will learn eventually. So, a linear equation of input-output mechanism works underneath. Teachers in colleges or universities, who use this method, often find faults in students or term them as 'poor learners'. Biggs (1999) termed this as 'blame the student' model of teaching. Hence, if any or some of the students cannot comprehend the meaning out of it, it is not seen as the fault of the teacher, but the inability of the students. This implies that teaching can also be conceptualised as a mere transmission of information.

Teaching as Organsing Student Activity

The focus of this level is more on the students, than the teachers. Here, lecturers perceive teaching as a supervision process where she/he articulates the teaching to help students learn. The transmission of information takes a back seat. More importantly, learning is seen as a 'perplexing problem' (Ramsden, 2003). It involves additional efforts of trying out different methods to facilitate learning. The methods include ways of motivating students so that they are willing to learn even dull subjects. However, this may include the 'reward or punishment' methods, and the teachers use phrases such as "if you learn it'll be useful for you;" or "if you don't learn, you'll fail in the exams" (Ramsden, 2003).   Underlying belief is that students will learn through reacting and doing, and thus link theory and practice. In a way, the teaching here is not simply about lecturing in traditional sense, as mentioned in the earlier level, but also about engaging with students.

The teachers, who practice this, also try different set methods to enable learning. This tendency of practicing tried and tested methods are a common trait. The teacher, in other words, wants a set of methods that are 'fail-safe', tested and applicable to all. This somewhat limits the change of understanding of the lecturer, and becomes a tool for building lecturer's repertoire. Thus, this view, when correspond with learning, indicates that there are certain conditions that guarantee learning. Importantly enough, student learning is no more seen as learners' responsibility (e.g. blame the students or good and poor learners). It assumes that if there is a hindrance in learning, it could be inside, as well as outside the learner. This stage works as a transition between the previous and the next levels of teaching.

Teaching as Making Learning Possible

This stage is more complex than the previous two. It conceptualises that teacher, student and subject content are linked together through an overarching tool or system (Ramsden, 2003). Teaching here is a cooperative process with learners to change their existing understandings. That is why, it is termed as 'making student learning possible'. Teachers, who use this approach, focus on the critical issues of student learning and try to address them. Therefore, the traditional role of the teacher differs substantially. Teacher here is more of a mentor who facilitates the learner to discover the knowledge. Learning here is more inclined to applying and modifying one's own ideas. "It is something the student does, rather than something is done to the students" (Ramsden, 2003, p. 111).

This approach is far from the surface approach of teaching and learning. It requires venturing out of the box, while making informed choices. The pedagogy is thus, a very crucial factor, so does the training to improve teaching. The process of learning, both for the teacher and student, is thus modifying one's own ideas. Teaching is a reflective activity, where the teacher listens to students and other stakeholders (teachers, administrators) in an effort to teach better. Continuous improvement of skills through knowledge development is an integral part of the process. That is why, this also perceives teacher as an active lifelong learner. This continuous improvement of skills to understand the needs to identify critical obstacles to topics gives them a special edge. This active teaching is seen as context-related, uncertain and continuously improvable without any protocol to adhere to.

Structure of the Theories

It is important to reckon that these levels mentioned earlier are hierarchical in nature, and there is a rational line of development from one theory to the next. Each theory represents a two-fold and rather contradictory development towards a complex and relativistic understanding of the relations between teaching and learning, and towards explaining the interplay between what a lecture does and what students learn.

'Teaching as telling or transmission' assumes that the content transmission is sufficient enough, whereas 'teaching as organising student activity' focuses on different teaching skills, in addition to transmission of information. The theory of 'Teaching as making learning possible' is the most exceptional and demanding of them all, which pre-supposes all the abilities of previous two ('teaching as telling or transmission' and 'teaching as organising student activity') and goes beyond to be embedded in subject knowledge and the nature of how it is learned. According to Ramsden (2003), this is the most complex one, which does not burden the learning onto the students. Rather the role of a teacher is most important here. 'Teaching as organising student activity' occupies an intermediate position, where, on the one hand, it tries to impart skills and, on the other, motivates students to complete certain tasks (e.g. passing exams). However, it fails to integrate these with the students' learning of subject content. Hence, learning is skewed and has limited success in imparting the skills of learning to learn.

The theories (Ramsden, 2003; Biggs and Tang, 2007) rely on two core theoretical spheres - constructivism and phenomenography. Phenomenography is a term coined by Marton (1975) referring to the idea that the learners' perspective determines that

is learned, not necessarily what the teacher intends them to teach. This is truer for the adult learners of higher education. That is why teaching, under phenomenography or constructivism, is seen as a matter of changing learners' perspectives, to help them find a different view of the world from their former conceptualisation. Constructivism, with its long history in cognitive psychology, has taken many forms over the years. However, as aforesaid, all of them emphasise that learner construct and reconstruct knowledge, and teaching is thus, not a matter of transmission of information but engaging learners in active learning (Biggs and Tang, 2007). In summary of the theoretical discourse, it can be said that the change in perception occurs when -

- It is clear to both teachers and students what the intended outcome of learning are. The goal should be clear and defined. Outcome-based approach supports this idea, and the teachers following this approach are more prone to clearly mention the outcome and discuss them with the students.

- The art of good teaching is, therefore, to communicate Motivation also plays a crucial role and helps in good teaching perquisite.

- In this kind of teaching, students also feel free to focus on the task and not remain passive learners. They also attempt to create an engaging learning environment, not merely a struggle to pass the exam.

- In this way, students work collaboratively. They become team members with their peers and with the teachers. Teaching-learning is dialogue-based, which helps shaping, elaborating and deepening learning, and incentivises construction of ideas.

It is perhaps clear from the above discussion that teacher and student both participate in teaching-learning in an ideal situation. The role of teacher is thus most crucial, where she/he not only teaches, but also creates a climate of learning. Through formal and informal interactions with students, teacher establishes an environment, suitable for learning. In this regard, Biggs and Tang (2007) discuss two theories, which were originally coined by McGregor (1960). The Theories X and Y, as part of a single theoretical conceptualisation, refer to the assumptions about human trustworthiness (Biggs and Tang, 2007).

Those who teach, based on principles of Theory X, assume that pupil cannot be trusted, whereas it is opposite in Theory Y in which it is believed that the results will be improved, if students are trusted. Using the original ideas in the higher education classrooms, we may find that teachers who operate on Theory X, often assume that

students don't want to learn, they don't value learning or they should not be a part of the dialogic process or any significant discussions about their learning. This allows the teachers to think that the students should be directed what to study, how to study, make attendance mandatory, and invigilate examinations as a part of the structure. The standardised examination becomes the norm, and self or peer assessments are not even considered. It binds (or tries to) the students within strict deadlines and minute regulations. Essentially, it is the 'blame the student' model of teaching, mentioned in the theory by Biggs and Tang, 2003 or in 'teaching as telling or transmission'.

On the contrary, teachers operating on Theory Y assume that students do their best work when they are given freedom. Over-bureaucratization is counter-productive to good learning. These teachers also allow their students to make their own decision and provide choice for project-based evaluation, rather than invigilated tests. The teachers argue that even though there is a chance of cheating in the project-based evaluation, the learning benefits are much higher than that in an invigilated one.

Teaching according to theory X is more instruction-based and structured; hence, it restricts the range of self- directed learning, while generating negative feelings and a depiction of a surface approach of teaching-learning. This over-specification and control results in anxiety and cynicism, where rather than getting engaged in learning activities, students want to get out of the situation. Cynicism triggers the aloofness from teaching-learning activities, where students often prefer to stay silent and/ or do not take the class/ lecture seriously. Showing lack of interest, making cross-talks out of boredom are some of the examples of the same (Mandal, 2016). The teaching-learning process, too much concerned with bureaucratic demands to finish task(s), ignores the collaborative teaching-learning or makes it secondary. Lack of concern about students' perspective on the workload, their capacities, their limitations and demands are often overtaken by the teaching assignments and personal thought process on what to teach and how to complete the teaching in stipulated time-frame. The teacher, directly or indirectly, injects a sense of fear in students about failure, by communicating a message that there are some factors which are not going to be resolved (such as, poor students, slow learners, un-teachable). On the contrary, positive motivation helps building the feeling of ownership and confidence. Theory Y aims at that, with clear goals and progressive feedback processes without making the teaching-learning disorganised and over-regulated.

In a traditional setup of lecture-oriented teaching, teacher mostly follows the Theory X. She/he introduces the topic, explains, provides examples, takes questions and closes the discussion/ class. The students also engage in similar reciprocal fashion by listening, taking notes and may be asking a question. The questions may not be analytical or explanatory, but rather descriptive. Why so? The discussion earlier has emphasised on some aspects of it. However, going by the definition of 'explain' and 'describe', we can get another dimension of it. Explanation demands understanding of the topics, relation between the topics for a relational level of understanding. In contrast, description of something related to the layered, and not relational, understanding. The teachers' task is to make the linkages so that students can make the connections by understanding the structure(s). In large classes, which are common in many countries, lecturing is logically convenient, as it can provide information and explanation to a large number of students at once. However, over other forms of teaching, lecturing has no advantages. Moreover, teaching happening through lecture method in a large class is worse than in other teaching-learning situation (e.g. interactive teaching). In an interactive teaching-learning mode, following Theory Y, it is observed that students are more engaged, fostering interactions and making learning a joyful process.

Here, it is important to mention that Theory X and Y stand at two extremes and, as described by Biggs and Tang (2003), are examples of pure cases. Either of these in real situation is impossible to observe in its purest form as Theory X would be intolerable for higher education learners and Theory Y would be difficult to manage objectively. In actual situation there is a presence of both, where the extent to which it is leaned towards X or Y matters the most.

Traditional bureaucratic institutions see teaching-learning as any other activity in the organisation, thus tries to structure it. In this modus operandi, teacher as well as student performance both need to be quantified, so that particular values, as per the institution, can be added. The tests are relatively stable over time and aim to measure knowledge in a standardised manner. As said earlier, these are invigilated tests, institution as a larger authority (including the policy makers and academic decision makers), prepare curriculum which is rigid and often overlooks the development of basic skills, competencies. Thus, passing the exams also becomes a matter of number of correct answers. This is also termed as a 'measurement model' by Biggs and Tang (2003). In this process, teaching is often downgraded.

Quality teaching through Theory Y means trying to enact the aims of the institution by setting up a delivery system aligned to the aims of holistic learning.

Students in this setup need to learn holistic structures and their interconnectedness. Instead of devaluing teaching, this model provides substantial importance to teaching, and recognises it as a separate group of activity than the administrative one. Hence, teaching is not aimed to produce generic responses / answers. It rather promotes differences and change, aiming to foster learning. Similarly, the tests are customised so that it can evaluate individual learning. Surely, it has its limitations, as in large systems, this model is too difficult to practice in its purest form. Moreover, over-trusting the learners may lead to cheating or malpractices, especially during the evaluation of their actual learning. However, this limitation does not provide justification to follow the Theory X either. It is the mix of both, based on the demands of a specific context, which has the potential to bring effective teaching-learning.

Analysing Teaching-Learning in Higher Education - A Tool for Analysis

The above discussion helps us to understand the theoretical underpinnings of teaching styles, and the evolution of teaching-learning models from different schools of thoughts. They discuss different levels of teaching, their focus and possible consequences on learning. However, these theories discuss only the aspect of teaching and how teachers exercise the profession or how students are reacting to teaching. In practice, teaching-learning is influenced by several factors. The demands from teaching-learning in higher education is a result of various interlinked factors, spread across local to national and international levels. An analysis of teaching-learning in certain context thus requires an understanding of various factors and the theoretical knowledge of teaching-learning. Therefore, it can be argued that an analytical tool is needed to better understand and analyse teaching-learning in context specific manner. The analytical tool may include the understandings from the theories, which could help in explaining teaching-learning critically.

As an effort in this direction, this paper proposes an analytical tool. It is important to highlight that this is not a theoretical model, like the ones discussed. The tool does not have pre-conceived notions, explanations and pre-conditions attached with it. It does not attempt to define, the stages/ levels/ limitations/ strengths and weaknesses of a model. The tool helps in determining the context, the possible factors in it and the connections between the components. It leaves it to the analysis of the researchers, who use the tool to understand the issues in a context specific way. The researcher can use one/ multiple theories to explain the issues, as the tool does not provide any explanation to come to any conclusion. That is why, this is not a theory or a model, rather a tool for analysis.

The following 'Multi-dimensional Analytical Tool for Teaching-Learning' (MATT) takes this discussion forward. The MATT emerges from the impulses to understand deeper into the process of teaching and learning in a certain context. The tool attempts to look into the teaching-learning process and how it is perceived and practiced in the higher educational institutions. It has also emerged from the studies, which focus on understanding teaching and learning from different vantage points to recommend reforms based on empirical evidences.

Figure 1: Multi-dimensional Analytical Tool for Teaching Learning (MATT)
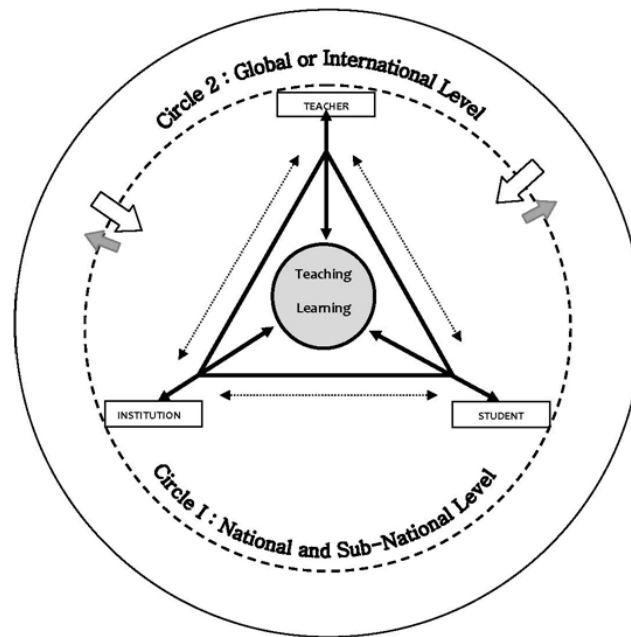
Source: Prepared by the Author

The analytical tool, as mentioned before, does not claim to be a theoretical model. The tool rather attempts to place teaching-learning in institutional context, which is connected to the larger sub-national, national and global contexts. The MATT is represented in a much simplified form, mainly highlighting the connections, which plays active role in influencing and modifying teaching-learning in certain context. In real situation, it is more complex, situated in a multi-layered pattern, where hierarchy and normative ideas sometimes play important role over the networks, which influence teaching-learning. Nevertheless, understanding these networks and influencing forces would help analysing the teaching-learning better and the MATT is an attempt in this direction.

Teaching-learning is at the core of the diagram, which is placed inside a triangle. At the three ends of the triangle, there are three most immediate stakeholders, which

are also termed as components in this discussion – the teachers, the students and the institution. Important to note is that the word 'institution' does not only limit itself to the institutional administration alone, although considers it as the prime one. The word 'institution' rather denotes a larger section of administrators, ranging from departmental, institutional (college and university or only university, depending on the institution), local and sub-national administration (state level) and any other external institution(s) (such as, industry as a partner in decision making), if applicable.

The double-headed arrows originating from (and towards) these three major components (teacher, student and institution) are pointing towards the core area of teaching-learning. Here, we call it the 'direct primary interlinkages'. These linkages signify that the linkages can individually influence teaching-learning and that teaching-learning can also individually influence each one of these three stakeholders. For instance, the teaching style of a teacher, students' learning abilities or the administrative decision on the syllabus can influence teaching- learning, its pattern, skills building and learning outcome of the students. On the other hand, an interactive teaching-learning will create vocal learners, who may, in turn, demand better facilities for their teaching-learning, both inside and outside the classroom (e.g. library, discussion room, internet connectivity and so on).

There is another set of double-headed arrows (marked as dotted lines), which are located along the arms of the triangle and connecting each component with two other components. These arrows show that the stakeholders can interact and influence each other without directly influencing teaching-learning. We call it the 'indirect primary interlinkages'. These linkages have substantial, but indirect influence on teaching-learning, as these interactions are not directly related to teaching-learning per se. That is why, they are termed as 'indirect', but 'primary'. For instance, an institutional decision on making the students pay for their internet connections on the campus, can have significant impact on teaching-learning, as it will restrict the access to information for many, especially in the context of developing countries, where a large section of students are economically disadvantaged. Teachers sometimes allow/ do not allow students to go for extra-curricular activities, such as, sports. Similarly, students also take / do not take proactive efforts to ask for special grants for seminar presentations / attending conferences/ summer or winter schools and so on. These, although do not seem directly influencing classroom teaching-learning, but actually have significant impact on practice and outcomes. As it is seen earlier in the theoretical discourse that teaching-learning is more than just classroom teaching; it involves a holistic development of the learner, where teachers and other

stakeholders play active roles. Using this argument, this tool goes one step further and argues that teaching-learning can be directly and/or indirectly influenced by the stakeholders, which is beyond the purview of classroom teaching, but an integrated part of the teaching-learning process; and thus need to be included in the analysis.

The above argument also takes us to the next step, which looks beyond the triangle of teaching-learning consisting of three major components - teachers, students and institution. At this point, the MATT represents two circles – Circle 1 and Circle 2 - which are mainly consisting of policy and practices and decisions taken at these two levels. Where Circle 1 represents a national or sub-national level; Circle 2 represents the global or international level. It could also be noted that the boundaries of Circle 1 are marked with a dotted line, representing a porous boundary, where, ideas and policies are transferred and can influence both circles. The two big arrows (appeared twice in the Figure in NE and NW sides) represent the connections. However, the bigger arrow, pointing towards Circle 1, with the white base, represented as a stronger one, more capable of influencing the policies and decisions of the inner circle. The policies and practices of the Circle 1 can also influence the global/ international one; however, the influences are not as strong as the first one. That is why; this is represented with a smaller arrow, pointing towards Circle 2 (with a darker shade, for differentiation purposes only). The Circle 1, influenced by the Circle 2, modifies the direct and indirect primary interlinkages and teaching-learning. However, the type and process in which the Circle 1 exercises its influence varies and is a matter of context specific research.

The interconnectedness of the circles lies in the conceptualisation of globalisation, internationalisation and the increased influence of modern digital technologies in our societies. Globalisation is a term and phenomenon, which is on the minds of policy makers, academics, and professionals/ practitioners no matter what the sector or discipline is. Education is no exception (Knight 2006, p. 208). The scholarly works of Jarvis (2007), Field (2006), Rizvi and Lingard (2010) can provide more insights on the influence of globalisation on education. Nevertheless, it can be summarised that globalisation has profound influence on the individual countries and societies. The global, international or transnational level policies influence and, sometimes, push the national and institutional reforms. They promote the idea of growing at a global scale to survive and thrive (Jarvis, 2007). However, this global, international level influences need legal authorities, policies, administrative support at a national level to strive in that country and there they depend on other players to move the dice in favour of it. Through several mechanisms, these policies and

practices put pressure on the national, regional/local and up to the individual levels (Jarvis, 2007, p. 42-53) to make all the necessary changes to make room for their agendas to thrive in certain system(s).

In the interconnected world, through digital technologies, bi-lateral and multi-lateral relations, academic tie-ups, exchange programmes, scholarship schemes and so on, penetrating at the very individual level is perhaps easier than before. Through several mechanisms, they seek affirmation to the dominant practices, whether it is course or credit structure, international or national educational qualification tool(s), subjects offered or disciplines promoted and recognition of the skills or competences, to name a few. The transferability or the demand for making the practices comparable, accepted and accredited at international and transnational levels, influencing the countries to reform their educational sectors. Since higher education is directly linked to the world of work, the influence is also direct, more profound than other educational sectors. As a consequence, there are more 'higher educational reforms' in the last three decades, and the result is a move towards establishing globally consensual national systems, which are willing to share some of its practices.

The influence of global ranking, credit transfer, exchange of students, faculties and administrative staffs demands a similar, if not the same system, where movement and comparison is feasible. In response, countries are aligning their higher educational structure, qualification tools, courses in order to be competitive and networked. The administrative reforms, inclusion of more ICT infrastructures, teaching, focusing on building competencies are taking the front seat, at least in national and institutional policies. On the other hand, the contemporary national and sub-national level policies could influence the international practices with their good practices. Economically strong countries however, access more power to influence others with their practice being dominant, where other countries and individuals also tend to 'follow' the line of reforms championed by the more powerful ones. The higher education reforms in the USA and UK could be mentioned in this regard. Interestingly, individual countries can form transnational entities (such as the EU and OECD), which have substantial influencing power to change higher educational practices. For instance, the Bologna Process has not only influenced European countries, but also its influence in re-aligning global practices of higher education which is well known. The international influence on focusing on competence development and the importance of teachers in this regard, is the talk of the hour in global policy and academia (Goodwin, 2010).

Analysing the impact of all the global/ international/ transnational/ national and sub-national policies and practices on teaching-learning is thus helpful to get the complete picture, however, often less feasible, considering the magnitude of it. Moreover, the policies are not merely focusing on teaching-learning (both at the Circle 1 and Circle 2), rather associated with global, transnational and national political agendas, economic strategies, plans and so on. In other words, it is perhaps also not proper to consider the influence of Circle 1 and Circle 2 as direct one. However, as aforesaid, they have considerable influence on teaching-learning, although rather indirectly; hence should be considered in the discussion. It is up to the researcher to select one or many international policies and practices to study its (their) influence on the national policies. Similarly, one of the few national and sub-national policies can also be selected.

Using MATT (Multi-dimensional Analytical Tool for Teaching-Learning)

The MATT as a tool helps analysing some of the major components and their interlinkages. Hence, there are two major areas to explore - components and interlinkages for the purpose of using this tool in studies. This section highlights them in brief, recognising that the nature of components and the linkages do vary contextually, and this aspect should always be taken into consideration while using this tool.

The section initiates the discussion with the components, playing a key role in modifying the direct and indirect primary interlinkages. These are (a) Students or learners, (b) Teachers, and (c) Institutional or administrative.

a) Students or Learners

The student or the learner is in the heart of the learning process. Since the change of focus from input-oriented teaching to output-based learning, the prime importance of teaching- learning across educational sectors are on learners' development. However, learning is not limited to formal education only. Therefore, the tool insists on looking at learning outside higher education, including formal sphere as well. In this regard, socio-economic factors can also play a vital role in determining the trajectories of educational development. The education of the parents, income of the family, geographical location (rural/urban origin of the learners), location of the institute are some of them. Besides, the prior educational achievement trajectory of the learners (from primary up to the entry to the higher education) can provide useful clues of the development of learner. The socially-constructed attributes, plus a whole range of work-related variables could also come in this context depending on the

focus on the study. Foremost among them would be educational background. Under educational background, one would consider basic qualification, disciplinary background, as well as the quality of institution from which students had attained their degrees. The basic ICT profile of the learners can also be considered here, as familiarity in using internet, computer and other ICT tools can enhance the learning up to a considerable extent.

To capture how students perceive learning, it is important to look beyond what is being taught, how it is being taught and what does it mean to the students. The first two (what is being taught, how is being taught) are discussed in the next section. To understand what does teaching mean to the students, it is important to focus on certain aspects of students' perception of teaching as a profession. What students think of the education they are getting, how effective it is in the present scenario, how often they take active part in teaching-learning process; these are amongst some of the most important concerns. Their experiences and expectations can also illuminate several aspects of teaching-learning process as, firstly, they are adult learners, and hence, their opinions hold greater values than that of the school-going students (often minors). Secondly, they are the end users and major stakeholders, and their opinion matters.

b) Teachers

There is a fair amount of literature that speaks to the point that individual attributes of the faculty are important predicators of their teaching performance. The discussion in this paper also highlights several such studies and theoretical discussions. These discussions mainly focus on teachers' perception, style, knowledge and skills of teaching. However, it can be argued that it would be rather difficult to get an idea on the above without obtaining a clearer picture of the teachers' background. The diversity of backgrounds can have significant impact on the perception, style and skills of teaching.

As decades of school-based research has demonstrated, many socially-constructed attributes come to define a faculty member's individual profile. Many of the individual attributes can have significant implications of how faculty members engage with their students and with their profession of teaching in higher education institutions. The other factors would be related to their socio-economic situation, similar to that mentioned in the previous sub-section (i.e. Student or Learner). Educational background of the faculties as well as the quality of institutions from which the faculty had attained their degrees can hold significant values. The question

of reputation of the faculty member's degree-granting institution is critically significant. Needless to say, poor quality of teaching in higher education perpetuates this cycle by creating a faculty pipeline that is weak in critical knowledge, academic breadth and pedagogical competence.

Closely related to educational background is a host of professional-profile variables that need to be taken into account in unpacking the notion of teaching quality. For example, the employment status of the faculty member – whether full or part time, whether regular, adjunct or contingent – could all have significant implications for the quality of performance of the faculty member and his / her self-efficacy. National and international literatures (Jayaram, 2002; Cross and Goldenberg, 2011) raise concerns as institutions increasingly seem to rely on low-paid and poorly-treated adjunct workforce to carry out bulk of the teaching load – while tenured and tenure track faculty engages themselves in pursuit of research and writing. It should be noted that more than the pay level itself, the status of the adjunct employees, their non-belonging and lack of voice in the intellectual and administrative life of the institutions where they work long hours, and their limited professional development opportunities (whether through pursuit of research, training or both) may have implications on their work.

Among the other important factors, the length of professional experience is also an important indicator of faculty members' exposure and maturity. Alongside, prior education and experience, faculty members' acquired and potential scope of professional development will also be important factors to consider. The availability of and access to meaningful professional development opportunities is largely a function of the institution where people are affiliated. The autonomy of the teachers in teaching, the professional freedom, teachers' perception about teaching, improvement, learning, changing educational scenarios are some of the many important factors to consider here.

Data can be collected on how teachers teach. Their attitude towards teaching; whether it is transmission of information or organising student activity or making learning possible; or is it closely associated with levels 1, 2 or 3; or its stand in the range between the extremes of Theories X and Y, related to the teachers' trust towards their pupils, provides much needed information on teachers' perception. However, this has to be triangulated with their actual practices of teaching. For that, classroom observation, students' interviews, focus group discussions can be useful tools. Teaching skills, knowledge (subject specific content knowledge and competence development related knowledge) are two important aspects, which are

closely associated. This provides a deeper understanding of what is being taught and how is being taught. Is it the surface approach or the deep approach or a mix of both; what dominates the teaching practices and how that varies in different levels, disciplines, types of institutions, are some of the salient areas to investigate in this regard.

c) Institutional or Administrative

In a formal educational setup, individual faculties or students do not operate in isolation; rather the institution plays a substantial role in shaping, modifying and improving teaching-learning. As said earlier, the institution or administration holds a larger meaning than just the immediate administration of the higher education institution. This broader conceptualisation should be taken into account while collecting and analysing information on the same. Here, it can be argued that many institutional factors are largely reflections of the broader structural aspects of the higher education eco-system, it is still important to examine how those factors manifest differentially in different institutions. It can be demonstrated how institutional context-specific processes and protocols governing the working conditions and teaching directives of the faculty members profoundly shape the quality of teaching practice that transpires in a higher education institution.

Besides resource levels, leadership, and organisational dynamics, an important category is the institutional characteristic, which is, in many cases determined by the administration. It is noteworthy in this regard that much like in school teaching, the issues of faculty work load and faculty-student ratio are increasingly counted as important levers of promoting/ hindering teaching-learning in higher education.

The institutions influence the environment for teaching-learning in many ways. The working conditions would entail basic infrastructure, faculty work space, and access to computer, internet and library facilities, common staff room, among others. It would also include the work load assignment – how many courses, class size, and time allocation between teaching, research, student support and administration. It is plausible that faculty will calibrate their teaching and adjust their teaching strategies to the learning needs (and preparatory levels) of their student body. Certainly, institutional profile affects and is affected by the quality of students that enroll there.

A key aspect of the institutional domain of teaching quality has to be the availability of and access to professional development opportunities. While this issue was considered in the previous domain, ultimately it is the institution that is the setting of such professional development opportunities and pathways. It will be

equally important to capture the kinds of external professional development opportunities that exist, whereby faculty members will go to another institution for professional development. This would include the presence of and access to learning opportunities (such as, Academic Staff Colleges or the Human Resource Development Centres in Indian Universities). It would also be important to capture the extent to which the institutions are aligned with the norms and parameters with respect to faculty development set by the national and sub-national decision making bodies (e.g. UGC and MHRD in Indian context).

Institutional context is not only the physical infrastructure or work-load norm, it is also defined by the social networks that inhabit those institutions. Theories of social network and social capital point to the potential benefits to knowledge workers of working in peer groups. Indeed, in the context of education, one increasingly encounters the notion of 'learning communities'. Hence, it will be important to understand to what extent the institutional culture enables faculty members to work in peer networks (Moore and Hicks, 2014). Research suggests that experiencing and experimentation allow, among other things, modelling by the teacher educator and reflection with peers - seem to be important factors that encourage faculty to adopt and eventually implement new pedagogical approaches (Van Den Bos and Brouwer, 2014).

National and Sub-national Levels (Circle 1)

As aforesaid, the influence of national and sub-national levels can be understood by analysing its policies, laws and practices. In this regard, it is important to look at the constitutional setup of the context, to understand how the responsibilities and legal boundaries are marked between the nation and the region (states/provinces). The difference between a nation-state (e.g. Denmark) and a federal state (like USA, India or Spain) should be taken into account. It is important to consider whether education (and specifically higher education) is a responsibility of the central government alone, or it is divided between Central and state/ regional governments. Understanding the legal and political boundaries and a clear perception about how the state/ region and the Centre communicate legally and politically regarding educational matters would provide much needed clarity while analysing.

The policies, laws and other amendments, legal bodies and their hierarchy provide idea on how Circle 1 influences the institution, its policies and practices. However, there are other agents, direct and indirect stakeholders, who influence the institutions of higher education. For instance, the industries, either individually or

through conglomerates of industries, influence national governments to augment educational policies to suit the needs of the world of work. The emphasis on working skills answering to the contemporary demands from the industries and the mention of the same in the educational policies and related documents is an example in this front. The influence of civic societies may also be taken into consideration, as they exercise a balancing force between the all-out market-centric educational reform and a more social-welfare oriented one.

It is important to note that, depending on the demands of the study, one, few or several components can be selected for analysis. However, understanding the hierarchy, power dynamics and interlinkages should to be taken into consideration first, while making the logical choices.

Global /International Level (Circle 2)

The global / international level or Circle 2 influences the national and sub-national levels or Circle 1 in a much complex and less hierarchical manner. As stated earlier, the influence from this sector can, at the same time, influence the national, regional/state, institutional policies and even practices at individual levels. To study this, it is therefore important to have a better understanding of the relationships between the political entities, whether it is a bi-lateral or multi-lateral one, or is it percolating from a global sub-structure to international and national levels. It could also be transnational policies, influencing the national one, directly to the member states and indirectly to the non-member states through their policies and practices.

Understanding the influence of Circle 2 is not limited to analysing the influence of individual or group of nations to another nation alone. There are other stakeholders, specifically corporations, international policy entities (e.g. UNESCO), group of international academic networks, large scale technology-based platforms (e.g. edX, Coursera for MOOCs) and so on, which have significant influence on the national as well as institutional practices of higher education in general, and teaching learning, in particular.

This part of the discussion does not specifically focus on the influence of teaching and learning, but on the higher education in general; nevertheless it may help explain the use of the conceptual tool in a given context. The global policies, their change of focus over time (e.g. the change of focus in the World Bank policies since 1990s or that of the UNESCO's) provide several important clues about how Circle 2 determines the need for change. These policies also influence in setting the direction of change. To cope with the global changes, which is faster to change itself,

international organisations promote the changes in the direction favourable to the global trend. However, different international organisations have different outlooks, and they make policies accordingly. Some political entities (e.g. EU), on the other hand, move one-step ahead and extend their policies to the next level by offering more internationalising opportunities for national higher education. Through tie-ups, scholarships, joint publication, student exchange and knowledge sharing, the direction is set to follow the dominant trend. These not only influence to make a better internationally oriented higher educational environment, but also are able to inject a change in the international directions for the national higher educational domain.

Interestingly, it is not just the international influence which works as a dominant force. It depends on the willingness of the national political entities as Williams and Cummings (2005) put the last question as 'do they want to?' However, in a policy domain, there are several factors, which demand a balanced approach and push the policies to be critical towards international influences. The national policies also have to take diverse / homogeneous socio-economic, demographic, political, cultural, regional and historical contexts into account, which also include the existing mix of traditional and modern educational culture and traditions. These result in varied priorities under one set of reforms. Williams and Cummings (2005) argue that there could be three salient questions, which are important to determine the policy priorities. These are -

- Are enactors able to? Which means, are the implementers able to implement/sustain the policy or change?

- Do they have to? Is related to how free are the implementers in order to implement and sustain the reforms. And lastly,

- Do they want to? Or does it make sense for implementers on balance, given other choices, etc. considering the history, values, goals competing claims on attention and time, the costs and benefits from the perspectives of implementation, which is also likely to include organisational, economic, political, social, cultural, historical and perhaps ideological considerations (Williams and Cummings, 2005, p.62).

It is, therefore, important to consider three factors to understand the influence of Circle 2 on Circle 1 and on institutional level(s) - the need for change, direction of change and the priorities before looking at the actual reforms to understand the dynamics better.

Separately as well as cumulatively, these factors mentioned in the conceptual analytical tool provide a lens to gain understandings of the teaching-learning process and how it gets influenced at various levels. It is important to reiterate that these influences do not always occur in a linear hierarchical manner. The direct and indirect primary interlinkages although provide a more linear relation, yet it is to consider that the context of teaching-learning is situated in an interlinked society where Circle 2 exercises significant influence on Circle 1.   The relation between these two circles is rather complex and dynamic. Therefore, any study of teaching-learning, considering the Circle 1 and Circle 2 into the analysis, must situate itself in a certain context, bound by delimited time and space. This is also the reason why this discussion refrains itself from providing any specific direction to analyse teaching-learning in a certain context. It may vary and the tool tries to provide a structure where the components and their complex interlinkages are depicted and thus used when needed. This (MATT) tool can be used fully or partially depending on the demands of the study.

Conclusion

The paper started with the discussion of the shift in the sphere of higher education and highlighted why there is a focus on learning outcomes, which, in turn, focuses on the teaching-learning processes as a determinant of successful outcomes. Theories are discussed, which help realising how the understanding of teaching-learning is defined by scholars in different ways. Similarity is also noticed, where the theories provide a linear, hierarchical model of teaching-learning, where one form is better and more effective than the other. However, it may differ and be more complex depending on different contexts. To analyse teaching and learning in a context specific way, it is important to consider various factors/ components and their interlinkages, which are crucial in determining the way teaching-learning is perceived and practiced. This paper, therefore, has taken clues from the theoretical discourses and used them in developing a new 'Multi-dimensional Analytical Tool for Teaching-Learning' (MATT).

It is multi-dimensional, as it helps examining teaching-learning from different vantage points and layers. It helps exfoliating the interactions and influences of the global/international level to the national/ sub-national level which, in turn, help changing the higher educational institutions and their practices, including teaching-learning. With the help of this tool, it could be possible to analyse teaching-learning in a non-linear way, where several factors, entities and stakeholders influence teaching-learning in a complex manner. It could also be noticed that one component (e.g. institution, teachers) plays multiple roles at the same time and interacts differently

with different entities. These complex interactions and interlinkages provide the tool the freedom to use the theories, wherever needed.

The tool, in spite of its limitations, tries to provide a working solution for the researchers and help understanding the core issue; i.e. teaching-learning from different dimensions and levels. More studies can certainly help to understand the complexities and interlinkages of the components influencing teaching-learning in different contexts while the tool (MATT) helps to analyse them in a focused manner. The progress of research using the MATT will be helpful to emerge with micro-context specific factors and components, which, in turn, would be valuable addition to the world of knowledge.

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➲ About the paper

The paper reviews some of the theoretical developments in the understanding of teaching and learning in higher education. It discusses different levels of teaching, their focus and possible consequences on learning. Teaching and learning in higher education is influenced by various factors spread across institutional, national and international levels. This paper shows the need for analytical tools to better understand teaching- learning process in higher education. As an effort in this direction, this paper discusses an analytical tool which may help analysing and understanding teaching-learning from different dimensions.

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