Improving Teaching Effectiveness in Higher Education

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Abstract. China has been striving to establish a 'quality-oriented' system in Higher Education. To achieve the changing demands of globalization and the job market, it is the responsibility of institutions and teaching staff to provide a positive learning environment that stimulates and encourages student engagement and involvement in learning. This study explores how perceived characteristics of a good university teacher are related to the experienced teacher's expertise, knowledge and competency. It shows that an effective university teacher acts as a pedagogical specialist and facilitator of learning, who is enthusiastic about the teaching profession, has profound knowledge of the discipline field, and uses various effective teaching methods to scaffold students' learning. The core of the service for higher education institutions (HEIs) is to provide high-quality teaching. Through learning from expert teachers, this paper contributes some insights and support for the professional development of university professors and lecturers.

Keywords: Higher Education · Effective Teaching · Characteristics of Effective Teachers

1 Introduction

The higher education system is an essential mechanism for improving higher education institutions' ability to contribute to both the country's economic growth and social development. Meanwhile, it equally has the responsibility of preparing the countries' systems for the increasing impacts of globalization on higher education [1–3]. Since the middle of the 1990s, establishing world-class universities has been a strategic priority pursued by the government and Chinese universities. Their goal is to provide a sufficient number of educated human resources for China's economic modernization and future development in the context of a knowledge-based economy and globalization. The development of Chinese higher education has displayed two striking features: a significant upgrade in the quality of its top universities and a major expansion of enrolments in all higher education sectors [4, 5].

As more students get access to higher education, however, significant inequality remains a distinguishing characteristic of Chinese higher education systems. The Chinese government has developed a key strategy to build world-class universities by making tremendous financial investments in target top universities through initiating national

programmes such as the '985/211 Project,' the '111 Programme' and the recent 'double first-class' university Project. With the help of the government, these key universities have improved their financial situation and infrastructure significantly. According to the (Quacquarelli Symonds) QS World University Rankings 2022, Tsinghua, Peking, Zhejiang, Fudan, Shanghai Jiao Tong universities and the University of Science and Technology of China (all listed in the 'double first-class' university Project) have been included in the first 100 top universities of the world. Universities under the most recent 'double first-class' university project have benefited considerably from government policies and the funding support of various sources for high-quality education. Nevertheless, the number of the best universities in the Chinese higher education system is small, with only 39 out of more than 4000 institutions. That means a high-quality education is only available to a few elite students, and indeed part of China's growing difficulties in university graduates' job placement is due to the low qualifications of some students [4, 6]. As a result, to meet the great demand of the majority of Chinese students, it is essential for the other degree-offering institutions to improve the quality of education on their campuses.

Moreover, there are particular challenges for university teachers, who have to come up with a way of providing the teaching needed by a highly diversified cohort of students, given that class sizes often reach to hundreds and students' cultural origins span the world. As what Light called 'the new student diversity,' learners bring different racial, ethnic, political, geographical, educational and economic backgrounds to university campuses [7]. In 2020, there were 32,852,948 college students signed up on campus in China (National Bureau of Statistics of China, 2019) [8]. Moreover, the internationalization of the student population implies the integration of China's higher education community into the international community. The total number of international students in higher education institutions had reached 273,792 in 2016, while nearly 15,000 non-Chinese academic staff joined Chinese HEIs from overseas in 2013 [9]. These expanding systems of higher education have placed more pressure on the demand for a large number of academics and an intercultural pedagogy that can benefit students from different backgrounds and cultures. Indeed, many lecturers and professors at Chinese universities are now required to design and deliver course programs in ways that make sure both international and domestic students can work and study together effectively [16].

Finance is an important but not crucial factor hindering the development of Chinese colleges and universities. The main focus of quality improvement should be the core processes of curriculum development and teaching as the means to learning [3]. Teachers play an important role in quality improvement and have a profound impact on students learning and academic achievement. Without accomplished, enthusiastic, and erudite professors and lecturers, no academic institutions can be academically successful [4, 10]. China is striving to establish a 'quality-oriented' system in higher education. To achieve the demanding goals of promoting desirable educational outcomes, by responding to the diversity of professional jobs and the demands of globalization, it is the role of institutions and teaching staff to provide a positive learning environment that stimulates and encourages student involvement in learning. Teachers are not treating formal learning as being merely the acquisition of specialized subject knowledge, it is even crucial for

teachers to get involved in scaffolding the way learners develop high-level cognitive skills, or ways of thinking and practising [11, 12].

2 Effective Higher Education Teaching

The research-teaching nexus is often described as the main feature of expertise in university teaching, in which university teachers are academics who generally take responsibility for research, teaching, and other professional tasks (e.g. clinical work or administration) [10]. For many decades, excellent teaching is generally undervalued and remains its lower status in comparison to research in higher education persistently [13]. As 'teachers-as-researchers', university professors and lecturers are believed to have extensive knowledge in their chosen professional fields, and they also have the duty of teaching which comes along with their academic research profession [14]. As a result, most faculties have prioritized disciplinary research performance over teaching for career promotion at universities and colleges [10]. However, there is a very weak positive link between high-quality teaching and being solely a discipline expert with extensive content knowledge. Recent developments have spurred considerable research interest in the quality of teaching and learning in higher education. It is also claimed that the core of the service for higher education institutions is to provide high-quality teaching.

Effective higher education teaching is often seen as a 'contested concept' with varying definitions since different people have different concepts of the meaning of quality [15, 16]. According to the predominant principle of constructive alignment, desired objectives, teaching and learning activities, specifications and requirements, and assessment tasks, all need to be aligned with the expected learning outcomes. Another fundamental concept is 'powerful learning environments,' which describes similar essential elements of education: effective teaching and learning processes, building supportive learning environments, competence in a given teaching domain, a system for monitoring progress, and enhancing learning and teaching [10, 15]. In other words, high-quality teaching can be described as teaching that is focused on students and produces or facilitates their learning [14]. Several researchers have defined effective university teaching as the dynamic and interactive process of creating and fostering an intellectually stimulating and interdisciplinary learning environment, where all students are supported in activities and can be inspired intellectually and educationally [11, 17].

3 Characteristics of Effective Teachers

Teachers have the most powerful influences on learning. It is clear that some teachers are more effective than others in promoting desirable educational progress and development. Effective teaching research has concentrated on the features and characteristics of good university teachers and their specific teaching behaviour. A better understanding of teacher effectiveness in higher education remains crucial for the quality of student learning and engagement; it is also for decision making regarding the recruitment, in-service professional development, teacher training, compensation, and evaluation of university teachers [18].

A good university lecturer or professor is an expert in their subject field who know their disciplines extremely well. They are active and accomplished scholars, artists, and scientists. Instead of 'delivering lectures' or 'transmitting knowledge,' they have the capacity to think metacognitively, in which they use their knowledge to design and improve teaching techniques for understanding essential principles and organizing concepts that other people can learn and think deeply. Those outstanding teachers have achieved remarkable success in helping and encouraging their students to learn in ways that have a sustained, substantial, and positive influence on how those students think, act, and feel [11]. According to Goldhaber, only approximately 3% of teachers' influences on students' learning are linked to teaching experience, qualifications, social status, educational level and other readily observable characteristics. The remaining 97% of the contributions teachers make to students' academic achievement are based on intangible, overlooked aspects of teacher quality such as disposition (e.g. motivation and enthusiasm, caring, professional growth, and a sense of efficacy), attitude, and classroom practices [19].

Teacher expertise, teacher knowledge and teacher competency are interrelated with each other and described as the key characteristics of a good university teacher. In higher education, teacher expertise depends on how teachers perform various relevant 'teacher tasks' in their teaching domain. Van Dijk distinguished six teacher tasks and their corresponding subtasks in the area of higher education teaching, which are: 'teaching and facilitating learning', 'leadership and educational management', 'assessment and feedback', 'teachers professional development', 'scholarship and educational research', and 'educational design of learning goals [10]. Their study reflects a widely shared agreement on what teacher expertise means in university education.

Academic literature on the study of education has consistently highlighted the significant role teacher knowledge has on the performance of students. For a teacher to teach effectively, they have to master three distinct dimensions of teacher knowledge, namely 'Content Knowledge', 'General Pedagogical Knowledge', and 'Pedagogical Content Knowledge' [20]. To encourage students in disciplinary thinking, teachers themselves first need to keep abreast of the important intellectual and scientific developments within their fields.

In Voss and Kunter's study, general pedagogical knowledge is a multi-layered concept comprising practical knowledge of two main categories—classroom processes and student heterogeneity. In particular, it is essential to consider the knowledge of student heterogeneity and sources of diversity for successful teaching since student learning often occurs in a social setting. Teachers, therefore, need to know how to structure and orchestrate learning opportunities accordingly, so that they can effectively facilitate the learning process and provide learning opportunities that foster insightful learning [21]. As the expanding system in higher education, students often come to classroom with various learning abilities and needs, with different characteristics and the specific challenges, and from different social backgrounds, it is vital for teachers to bear student heterogeneity in mind and to develop a set of particular skills and practices to assist students learning successfully. For instance, Devlin and O'shea's study showed that highly effective teachers who make a commitment to teaching and to learning can assist students from lower social-economic backgrounds to learn successfully through

their course. These students also find teachers, who have high-quality interpersonal relations and demonstrate skills in analysing and explaining academic requirements and expectations, are extremely helpful to them and their learning [15].

Social knowledge is another characteristic knowledge domain of an excellent university lecturer, in which the best teacher is a growing expert constantly reflecting and developing their pedagogical competency. They actively take part in social reflection with their co-workers and peers, by establishing significant networks and meaningful conversation, they are able to develop and nurture their understanding of teaching and learning and come to realise their teacher identity [14].

Teacher competencies encompass both the cognitive abilities (i.e., professional knowledge) and the capacity and willingness to apply the knowledge, skills and attitude that best facilitate students' learning. Teacher knowledge is also recognised to be part of competencies, in combination with other affective-motivational characteristics such as professional beliefs, motivation, skills, values, and self-regulation. For instance, it has been proved that teacher knowledge is positively associated with teachers' ability to give high-quality instructions in the classroom [10].

Good teaching can be learned. Teachers' pedagogical thinking and decision-making in classroom education are largely determined by a teacher's extensive knowledge in their chosen fields, their flexible concepts of teaching effectiveness, principles and morality, and the teaching methods through which they are integrated cognitively. It also has an influential effect on the failure or success of pedagogical reforms in Chinese higher education. To have a better understanding of what makes the best university teacher, it is essential to be present in the classroom to gain a deeper understanding of how highly effective lecturers and professors deliberately manage the complexity of teaching, and how their individual backgrounds and disposition interact to help students learn profoundly.

4 Teachers' Classroom Interactional Competence

The best teaching is often both an intellectual creation and a performing art [11]. To achieve a competitive advantage of attracting more students, perceived teaching effectiveness and quality, and course experiences are often seen as the key determinants of student satisfaction. Lecturers who are committed to students' academic success and social integration and their strong interpersonal skills are all positively related to student satisfaction [16].

4.1 Planning for Instruction

Highly effective teachers begin with authentic and fascinating questions about student learning objectives, and develop better learning experiences for their students because they perceive teaching as an encouragement to learning [11]. Their solid knowledge of the subject matters helps them plan the delivery of instruction, in which they devote a great amount of time and effort to decide how they will teach, the required curriculum, pace of learning, available learning resources, how to deliver knowledge, and monitor student

learning progress [22]. In an interactive lecture, effective teachers sequence higher-order intellectual activities in a way that can promote students' cognitive development and natural critical learning.

4.2 Teaching and Supporting Learning

Highly effective teachers motivate students' interest in the subject and use provocative questions or problems to capture and keep students' attention for each class. They often lead the learning process through learner-teacher interactions, and they treat their lectures, problem-based session, discussion sections, team project, and other elements of teaching as serious intellectual endeavours for enhancing student learning. The best teachers have more developed underlying principles that they attempt to create a challenging but supportive 'natural critical learning environment'. They also apply various key techniques—good verbal ability, warm language, conversational tones, good intentions, good explanations, and the ability to make students talk—to create learning opportunities that help build this environment [11, 23]. Teacher communication skills, such as making learning interesting connecting conceptual material with real-world examples or using everyday, transparent language to communicate about the material with students, can be very useful to support students' comprehension of terminology and concepts related to the discipline [15]. Indeed, it is a dynamic and two-way communication process of teaching and learning, in which there is a positive link between teachers' ability to effectively communicate and the clarity of explanations to students, the rapport they build with others, and invariably, student understanding and achievement [22].

Maintaining 'high expectations of all students' is the key principle of quality teaching and inclusive learning in higher education. The best teachers often hold more developed concepts of self-efficacy where they believe they can shape students' motivation. To develop confident learner identities and behaviour, they set clear and high standards and convey a strong trust in their students' ability to achieve them [11]. The climate of trust can be created through effective cooperation and communication to pursue ambitious goals, which teachers left students in control of their own studies but promise to help them achieve, using a caring way to provide assessment feedback while managing problems and complaints fast and effectively [15, 22]. Moreover, effective lecturers are interested in meeting individual learning needs no matter what their academic difficulties or social backgrounds are, which they identify and then dismantle the barriers to an individual's learning. As a result, it is more likely for the devoted lecturers to exhibit superior work performance and achieve a higher level of student attainment [16].

4.3 Personal Attributes

Teaching is a highly complex, challenging, and intellectually demanding profession, yet effective lecturers are passionate and enthusiastic about their chosen profession. Students often regard lecturers to be effective and outstanding when they are helpful, caring, understanding, entertaining, and treating students in an open-minded manner. Effective teachers who demonstrate great interpersonal skills can develop strong working relationships and cultivate a positive classroom learning climate. By having meaningful dialogues, developing common areas of interest and discussing shared experiences that

happen within the classroom and at the university as a whole, positive social interactions between teachers and students can be fostered. Effective teachers enjoy working with students and they apply a warm and personal manner when they interact with them. In turn, students feel treated as people and learners, and they work harder to attain academic achievement for teachers whom they consider as being honest with them and who trust their abilities [22].

5 Conclusion

Quality teaching is the key feature of attracting and retaining students. It is critical to enhance standards of excellence in the learning and teaching of higher education in China. An effective university teacher is multifaceted as grasping a broad knowledge base, possessing versatile personal characteristics, performing various professional roles, and being willing to develop their professional competency. As instructional practices have the most direct causal impact on student learning, those highly effective teachers integrate a variety of classroom teaching techniques and innovative strategies in ways that allow them to optimally structure a positive and productive intellectual environment in their classrooms. They also emphasize the affective needs in their planning, instruction, and assessment, respect and have positive relationships with students. Teaching is a lifelong professional practice, effective teachers can and make a sustained, substantial, and positive influence on students' thinking, acting, and feeling.

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