

# Chinese L2 Learning Needs of MBBS Students: Influencing Factors and Strategies for Deep Learning

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This study examines the language learning needs and influencing factors of international MBBS students in China, to promote deep learning. Despite compulsory Chinese requirements (Level 4 HSK), a non-immersive environment often leads to motivation issues. Findings reveal that students perceive their needs as phased, homogeneous yet diverse, and not universal. Daily and professional communication demands, positive teacher-student relationships, and successful language application drive deep learning. Key strategies are proposed, including enhancing teacher quality, developing structured materials that bridge general and medical Chinese, implementing scenario-based teaching that prioritizes speaking/listening, and optimizing the curriculum for continuous exposure and a balanced workload. The ultimate goal is to cultivate competent communicators for medical practice and daily life in China.

**Keywords:** MBBS students, Chinese language learning, needs analysis, deep learning, teaching strategies

The English-taught MBBS program in China is a leading choice for international medical students. The *Quality Control Standards for Undergraduate Clinical Medicine Education (English-taught) for International Students in China* (April 2020) explicitly mandate the compulsory study of Chinese language and medical Chinese, requiring a Level 4 proficiency before clinical placements. However, due to a non-immersive language environment, MBBS students often lack motivation for Chinese learning, posing challenges for their teachers. This research aims to investigate the learning needs and influencing factors of MBBS students in China, to enhance motivation, improve medical Chinese instruction, and refine examination content, ultimately synthesizing strategies for improved teaching effectiveness.

## The Implications of Chinese L2 Learning Needs for MBBS Students

### The Concept of Chinese L2 Learning Needs for MBBS Students

The Chinese L2 learning needs of MBBS students are a form of L2 learning needs; understanding their intrinsic nature requires analyzing their concepts and characteristics. Academically, L2 learning needs are defined by four approaches: goal-oriented, process-oriented, learner-oriented, and society-oriented (Yu, 2002; Ni, 2006).

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*Goal-oriented approach:* This refers to learners' linguistic objectives for L2 acquisition, aligning with current and future professional demands. For MBBS students, this means explicitly mastering fundamental Chinese language and medical terminology, reaching HSK Level 4 proficiency before clinical placements, as outlined in the *Quality Control Standards for Undergraduate Clinical Medicine Education (English-taught) for International Students in China*.

*Process-oriented approach:* This refers to the behaviors and methods employed by L2 learners during the learning process. For MBBS students, this broadly includes undertaking the Chinese language and medical Chinese courses stipulated by the Quality Control Standards before clinical placements.

*Learner-oriented approach:* This involves both aspirational needs (knowledge desired) and deficiency needs (skills lacking) (Robinson, 1991). Most MBBS students lack prior knowledge of Chinese, aspiring to develop communicative skills for academic, daily life, and clinical placements, thereby directly addressing their deficiencies. However, some learners, not undergoing placements, may resist daily Chinese communication, focusing solely on passing exams.

*Society-oriented approach:* This acknowledges that the broader societal environment dictates target language content. MBBS students, primarily from South Asia, the Middle East, and Africa, have limited exposure to Chinese culture. China's English-medium MBBS programs and widespread English education allow communication with academic staff and for fundamental daily interactions in English, consequently minimizing their perceived need for Chinese.

In summary, this paper defines the Chinese language learning needs of MBBS students as recognizing the value of Chinese, aspiring to linguistic knowledge for academic, daily life, and internship purposes through Chinese language courses, aiming for specific proficiency (HSK/MCT), which forms the fundamental motivation driving their learning behavior.

### **Characteristics of Chinese L2 Learning Needs Among MBBS Students**

The Chinese L2 learning needs of MBBS students hinge on their "recognition of the value of Chinese". Influenced by factors such as international politics, native linguistic contexts, and China's social environment, not all students share this value. Thus, a key characteristic is that not all MBBS students possess such needs. Secondly, these needs are phased, varying in intensity or even absence across different stages of their "stay in China." While MBBS students share a medical discipline, similar academic backgrounds, consistent learning objectives, and comparable initial Chinese proficiency, leading to fundamental alignment in requirements, individual variations still exist due to individually oriented learning needs.

#### *Not all MBBS students need to learn Chinese*

This group primarily consists of two categories. The first category includes students with sufficient Chinese proficiency. A small minority already possesses advanced Chinese skills or exceptional linguistic aptitude, quickly reaching communication levels needed for "studying, living, and undertaking clinical placements" and meeting HSK/MCT standards. For these "Chinese users" (Duan Mo, 2010), ongoing courses serve more as a means of practice than formal learning. The second category lies in those who cannot perceive value. More prevalent among senior students (especially those from pre-2018 cohorts without HSK Level 4 mandates), some lose intrinsic motivation after completing courses. If they return home for internships or find

English sufficient for daily communication in China (such as at universities, hospitals, or cities), their need for Chinese diminishes to almost nothing.

*MBBS students' Chinese l2 learning requirements exhibit distinct phases*

Even MBBS students without current Chinese learning needs (e.g., those already proficient or those whose needs have subsided) experience a phased reduction in such needs, often stemming from initial fundamental requirements such as coursework and exams. Conversely, MBBS students with Chinese learning requirements demonstrate distinct phased characteristics: **Prior to arrival in China**, learning was primarily driven by an inherent interest in the language and its perceived value. Students chose China for medical studies partly because of the advantage of acquiring an additional functional foreign language, which is not available in other international study options. **During their studies in China**, needs largely centered on daily communication, passing Chinese language course examinations, and achieving HSK Level 4 for graduation. Interviewees prioritized these as: HSK examination requirements > Chinese coursework requirements > daily communication needs. **After graduation**, some students continue to need to learn Chinese to advance beyond HSK Level 4, often in connection with specific career plans. Examples include pursuing further studies/employment in Singapore (where Mandarin is an official language) or engaging in trade relations, highlighting the practical career benefits of advanced proficiency.

*MBBS students' Chinese language learning requirements exhibit both homogeneity and diversity*

The *Quality Control Standards for Undergraduate Clinical Medicine Education (English-taught) for International Students in China* establishes a shared foundation for MBBS students' Chinese learning. These standards stipulate objectives (mastering Mandarin/medical Chinese and achieving Level 4 proficiency before clinical placements), methods (compulsory courses throughout the pre-clinical stages), and expectations (daily life, study, and practice in China). Combined with their broadly comparable zero-foundation proficiency upon arrival, these factors ensure significant homogeneity in their Chinese language learning requirements, forming core teaching and assessment foci. However, individual learner preferences introduce diversity, which manifests in varied learning objectives; some students with clear plans prioritize higher proficiency or cultural knowledge beyond basic communication. Learning approaches also differ, with some preferring practical, outside-classroom experiences over formal courses. Skill prioritization also varies; while most value "listening and speaking," others show passion for "reading and writing" Chinese. Thus, teaching activities and textbook design must accommodate these individual differences.

## **Specific Requirements for Chinese Language Learning Among MBBS Students**

### **Reference Analytical Framework**

Among L2 needs analysis frameworks, domestic scholars often favor Hutchinson & Waters (1987) model (Table 1), initially for ESP.

It dissects target needs into requirements, gaps, and aspirations (learners' objectives, language use, audience), and learning needs into material, psychological, knowledge, and institutional conditions (backgrounds, resources, preferences).

Table 1

*L2 Needs Analysis Framework (Hutchinson & Water, 1987)*

Target Needs	Necessities	Language knowledge and skills required in the target situation
	Lacks	Objective requirements for future language use – Current proficiency level
	Wants	Content that learners wish to learn
Learning Needs	Material Conditions	Learning environment, learning materials, learning time
	Psychological Conditions	Learning interest, learning motivation, learning attitude
	Knowledge Conditions	Existing language knowledge and skills, learning strategies and methods
	Institutional Support	Teachers, School

Additionally, Dudley-Evans & St. John's (1998) seven-model framework (Chen, 2009) is considered highly comprehensive. This model integrates learner information and environmental contexts, analyzing needs from seven aspects: personal and professional information, communicative means, language and course needs, learner deficiencies, and linguistic information.

Drawing from these two classic frameworks and considering MBBS learners' characteristics, this study investigates their Chinese learning needs through four key questions: (1) Why learn Chinese? (2) What do they want to learn? (3) Why do their needs change? (4) How can these needs be met?

### Interview Design

*Interviewees* The study interviewed 50 MBBS students from the 2017-2022 cohorts of D University<sup>1</sup>. The breakdown by cohort was as follows: 2017 (3), 2018 (10), 2019 (15), 2020 (8), 2021 (12), and 2022 (2).

*Reference Materials Interviews* were guided by: (1) Chinese Proficiency Grading Standards for International Chinese Language Education (Topic Outline); (2) Medical Chinese Test (MCT) Syllabus; (3) D University's teaching materials for general, basic medical, and clinical medical Chinese; (4) Textbooks including *Developing Chinese Elementary Comprehensive*, *HSK Standard Course 1-4*, and *I Am a Medical Student*.

*Interview Format* Structured, semi-structured, and exploratory interviews were used.

*Structured Interview Questions* Key questions included: (1) What do you associate with "Chinese learning needs"? (2) What are your Chinese learning needs as an MBBS student? (3) How do your Chinese learning needs differ from those of students in other majors? (4) What experiences influenced your motivation to learn or give up Chinese? (5) What Chinese proficiency level do you aim for? (6) How do you rank the importance of the five language skills? (7) What are your suggestions for Chinese course settings (schedule, teachers, materials, activities)?

### Analysis of MBBS Students' Chinese Learning Needs Based on Interviews

Interviews with MBBS students at Qingdao University revealed convergent opinions on their Chinese learning goals, desired content, ideal teaching elements (including teachers, materials, and methods), and course design. This section focuses on their content-related needs.

#### *Chinese Learning Goals (Aspirations) of MBBS Students*

Interview results show MBBS students' Chinese learning goals align with *China's Quality Control Standards for English-Taught Undergraduate Clinical Medicine Education*. These goals include passing the

<sup>1</sup> D University is a Ministry of Education-approved institution offering English-taught MBBS programs since 2006.

HSK Level 4 and Chinese course exams, maintaining daily communication, and improving professional communication. However, a clear priority emerged: HSK Level 4 and course exams are of paramount importance. Daily communication is less prioritized, as students often use English comfortably in China with peers, instructors, and even in public, making extensive Chinese use for daily interactions seem less critical for graduation. While some neglect daily practice, others strive for higher professional standards, including comprehensive dialogue with medical teachers and supervisors, as well as barrier-free patient interaction during internships. Interviewees generally considered medical Chinese less important than daily Chinese for communication with professors, but crucial for interactions with patients.

#### *Topics and Tasks of Interest to MBBS Students*

To gauge student interest, a questionnaire was designed based on 48 topics from the *International Chinese Language Education—Chinese Proficiency Standards* and categories from the *Medical Chinese Test (MCT) Syllabus*.

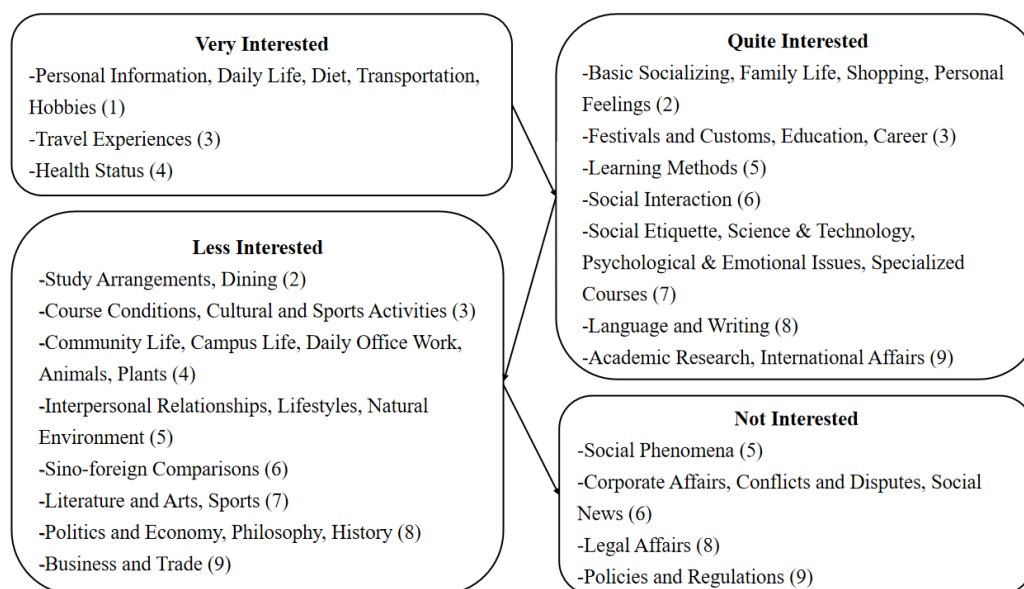


Figure 1. MBBS Students' Level of Interest in the Topics from the Chinese Proficiency Grading Standards for International Chinese Language Education.

Figure 1 illustrates student interest. MBBS students were “very interested” in all five Level 1 topics, as well as “Travel Experiences” (Level 3) and “Health Status” (Level 4), reflecting their daily communication and professional goals. One student articulated the desire to “negotiate... without any error and treat them well” with patience. “Quite interested” topics revealed a professional orientation (education, careers, academic research), a desire for diverse content (e.g., “Social Interaction” for introverted students), and interest in “International Affairs.” Conversely, students were “not interested” in topics like “Social Phenomena,” “Corporate Affairs,” “Conflicts and Disputes,” “Social News,” “Legal Affairs,” or “Policies and Regulations.” This disinterest stems from clear career paths outside corporate work and the difficulty for MBBS graduates to remain in China, which reduces their interest in local policies.

The MCT Syllabus categorizes topics into doctor-doctor, doctor-patient, doctor-nurse, and patient-nurse. Most interviewees favored “doctor-patient” topics, as Chinese is primarily needed for patient interactions during internships. Communication with supervisors (doctor-doctor) often occurs in English, and opportunities for discussing professional issues with nurses are limited.

#### *Language Skills Prioritized by MBBS Students*

The *Chinese Proficiency Grading Standards for International Chinese Language Education* outlines a “3+5” model, encompassing five language skills: listening, speaking, reading, writing, and translation. MBBS students consistently prioritized these skills, with speaking being the most important, closely followed by listening. The general order was: **[Speaking + Listening] > [Reading + Writing] > Translation**. It indicates their core need and primary goal in Chinese learning is the ability to speak.

This ranking reflects not only their learning needs but also the characteristics of this learner group, who value self-expression and efficiency. Interviewees explained that “speaking” Chinese provides an immediate channel for expression, offers tangible feedback on progress, and boosts confidence and motivation, making them learn more effectively.

### **Deep Learning of Chinese among MBBS Students and Strategies for Improvement**

This research aims to promote in-depth learning of Chinese among MBBS students, addressing issues such as a lack of interest and difficulties in teaching content delivery. “Deep Learning,” a concept introduced by Marton and Säljö (1976), has evolved to encompass active, inquiry-based approaches for achieving higher-order, transferable competence through immersive learning (Mu & Wang, 2019). Currently, most MBBS students tend to adopt a surface learning approach. In this regard, analyzing students’ evolving needs and how to meet them can identify factors that influence deep learning and provide a basis for developing effective strategies.

#### **Why Do Chinese Learning Needs Change?—Factors Influencing Deep Learning**

MBBS students’ Chinese learning needs are dynamic, changing from non-existent to existent, or from small to large. Insights from individual cases highlight three key drivers for promoting deep learning:

##### *Meeting Communication Demands in Daily Life and Professional Studies*

Case Examples (1 & 2): Students’ needs intensified “from non-existent to existent” or “from small to large” due to direct experience with communication barriers in daily life (e.g., quarantine, hailing taxis) or realizing the superior quality of professional instruction delivered in Chinese. It demonstrates that practical communication directly stimulates deep learning.

##### *Reciprocating the Emotional Support and Expectations of Chinese Teachers*

Case Examples (3 & 4): Teachers’ positive interactions, encouragement, and dedication had a significant influence on students’ motivation. An interactive, relaxed online class, or a teacher’s commitment to practical materials and student suggestions, fostered sustained enthusiasm and motivated students to excel, not just for grades but to “make their teacher proud.” It highlights the crucial role of positive teacher-student relationships.

##### *Motivating Personal Application and Exploration of Chinese*

Case Examples (5, 6, 7): Students were motivated by successful real-life applications of even limited Chinese, such as brief conversations with strangers, being greeted by locals, or confidently introducing themselves to others. These “application” experiences, often facilitated by teachers teaching useful expressions

early on, provided immediate feedback, a sense of achievement, and stimulated further learning. It indicates that applying learned knowledge is a powerful motivator.

These cases collectively demonstrate that practical communication needs, supportive teacher interactions, and successful personal application are critical for stimulating deep Chinese language learning among MBBS students. Teachers should design scenarios and materials that encourage this application.

### **How to Meet MBBS Students' Chinese Learning Needs?—Strategies to Promote Deep Learning**

To enhance deep Chinese learning among MBBS students, strategies should consider their expressed needs, ideal teaching elements (including teachers, materials, and methods), and course arrangements.

#### *Ideal Chinese Teachers*

Students seek teachers who are both qualified (experienced, professionally competent, strong academic background) and possess specific personality traits. Key terms repeatedly mentioned were “friendly,” “qualified,” and “interactive.” Friendly teachers provide emotional support, while qualified ones ensure structured, principle-based instruction. Interactive teachers facilitate both teacher-student and student-to-student engagement, staying current with evolving needs and providing opportunities for practice.

#### *Ideal Teaching Materials*

Students prefer printed, systematically organized textbooks with supplementary materials provided by teachers. While *Practical Medical Chinese* and *Developing Chinese: Elementary Comprehensive Course* were well-received, teacher-prepared materials were less popular due to disorganization. An ideal textbook should prepare for exams (HSK Level 4: *HSK Standard Course 4*), facilitate daily communication, support professional application (*I am a Medical Student: Basic Medical Chinese*), and smoothly transition from general to medical Chinese.

#### *Ideal Chinese Class/Teaching Methods*

Students desire a relaxed atmosphere that promotes language use. “Scenario-based teaching” is highly recommended, including off-campus activities to integrate learning with real-life practice, thereby improving engagement and outcomes. Given that “speaking” and “listening” are critical, classroom instruction should prioritize these skills, while reading, writing, and translation can be delegated for self-study. Students cautioned against “aimless entertainment-based teaching” (e.g., songs, movies without clear objectives), suggesting that if used, content should be explained and linked to learning goals.

#### *Ideal Chinese Curriculum*

The current MBBS curriculum at D University aligns with the *Quality Control Standards*, which require compulsory Chinese language instruction throughout the pre-internship phase. However, students found the course load in the third and fourth semesters excessive. Their feedback included: (1) Continuity: Desire for continuous Chinese learning throughout all six years. (2) General vs. Medical Chinese: General Chinese is more important, as medical Chinese is primarily for the sixth-year internship (where English is often used with supervisors), suggesting a longer duration for general Chinese instruction. (3) Focus: Senior students require direct focus on clinical medical Chinese, particularly in doctor-patient communication. (4) Workload: A reasonable weekly schedule is 4-6 class hours, as exceeding this adds burden, given their demanding medical studies.

## Conclusion

This study systematically delineated the complex, phased, and dual-natured learning needs of the Chinese language for medical students pursuing an MBBS degree. Key drivers for deep learning identified were the necessity of navigating daily and professional life, the motivational impact of positive teacher-student relationships, and the reinforcing cycle of successful language application.

These actionable findings underscore the need for MBBS Chinese programs to move beyond a one-size-fits-all approach, centering reforms on strategies that promote deep learning:

**Teacher Development:** Recruit and train qualified, interactive instructors who foster a supportive atmosphere and act as motivators.

**Material Compilation:** Create structured textbooks that bridge general and medical Chinese, integrating exam preparation (HSK/MCT) with practical daily and clinical applications, replacing fragmented handouts.

**Pedagogical Innovation:** Implement scenario-based teaching to maximize real-world language use, prioritizing in-class listening and speaking while assigning reading and writing for self-study.

**Curriculum Optimization:** Design a coherent curriculum ensuring continuous language exposure, potentially extending general Chinese, with advanced courses focusing on patient-centered communication, all while balancing weekly workload to prevent burnout.

In essence, by grounding pedagogical decisions in a nuanced understanding of student needs and deep learning stimulants, educators can transform MBBS Chinese language education. The goal is to cultivate competent, confident communicators for medical practice and daily life in China, not merely exam-takers. Future research should track the evolution of these needs and assess the efficacy of the proposed strategies.

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