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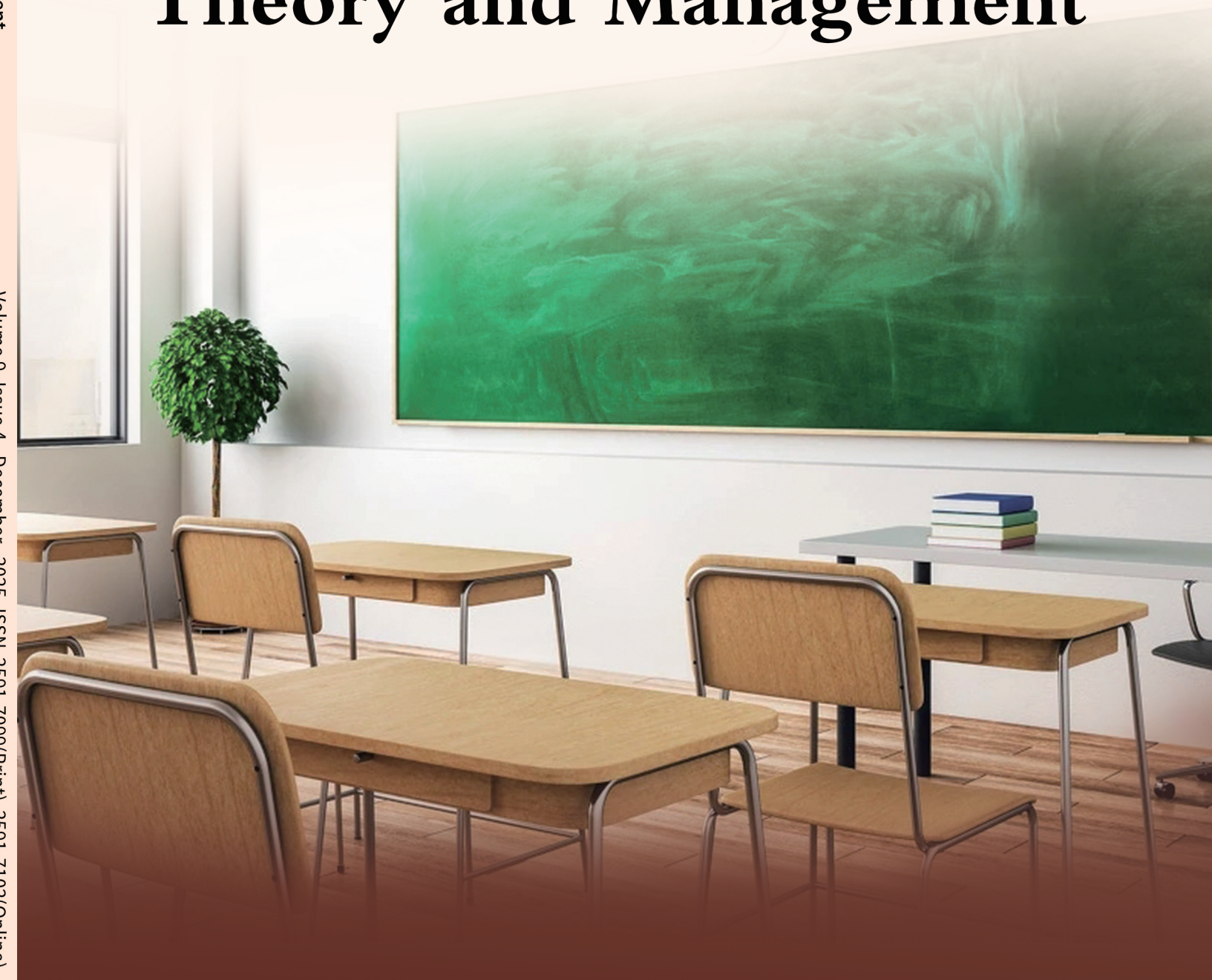
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Editor-in-Chief

Huimin Feng, Wuhan University

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A Study on Xu Yuanchong's English Version of *Song ci* from the Perspective of Translation Process Model

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ABSTRACT

The study has examined how Xu Yuanchong reproduces “Three Beauties” in his English version of *Song ci* from the perspective of Nida’s translation process model. Based on the analyses of images, repeated words and antithesis, the study has found that Xu Yuanchong has made numerous adjustments in his translation to restore the beauty of *Song ci*. It is hoped that the study can shed some light on the translation of classical Chinese poetry and serve the purpose of telling China’s stories well.

1. Introduction

In the era of globalization, China, with its increasingly prominent role on the international stage, attaches great importance to cultural dissemination and is devoted to telling China’s stories well.

In the long river of history in China, there has been precious cultural heritage worth people’s respect and praise. Among them, *Song ci* remains one of the brightest pearls, enlightening generations after generations. As the peak of literature in Song dynasty, *Song ci* is an epitome of that era. Many excellent poets hide their stories, feelings and attitudes behind their works. And for those who are eager to explore the old stories, *Song ci* will be the key. As a grand painting about Song dynasty unfolds before their eyes, the charm of *Song ci* will lead readers back to Song

dynasty to relive those old days so that they can be more familiar with China’s history and be inspired by how brilliant China’s culture is. That is why the spread of *Song ci* becomes an important task for China. Among all the scholars and translators who have worked hard to fulfill the task, Xu Yuanchong can be considered as one of the brightest stars.

Xu Yuanchong, an authority in the field of translation, is renowned for his translation of classical works and his principle of “Three Beauties” (beauty in sense, sound and form) in translation. Research of Xu Yuanchong’s translation principles through his own translated works is of great significance, shedding light on the spread of China’s excellent culture. Eugene A. Nida, a pioneering linguist and translation theorist, has made great achievements to translation studies. His 4-step translation process model

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provides a glimpse of how the translator handles the translation. Therefore, the study aims to explore how Xu Yuanchong applies the principle of “Three Beauties” to his English version of *Song ci* from the perspective of Eugene A. Nida’s translation process model.

2. Eugene A. Nida’s translation process model

Eugene A. Nida, a pioneer in the field of translation studies, has developed a systematic approach to translation known as the translation process model. The model includes four stages, analysis, transfer, restructuring and testing. The first stage, analysis, involves a thorough examination of the source text’s grammatical relationships and semantic structure to determine its underlying meaning^[1]. The second stage, transfer, entails converting the analyzed meaning from the source language (SL) into the conceptual framework of the target language (TL)^[2]. In the third stage, restructuring, the translator reorganizes the transferred meaning into a natural and coherent form in the TL, ensuring readability and cultural appropriateness^[1]. Finally, the testing phase evaluates the translation’s effectiveness, often through feedback from target readers, to verify its accuracy and communicative impact^[2].

Nida’s four-step translation process model, rooted in his theory of dynamic equivalence, is usually regarded as a prescriptive framework for achieving equivalence. However, the model, if conceptualized as a descriptive framework, can also function as a valuable tool for deconstructing translators’ decision-making process when doing a translation. Therefore, by means of this tool, the study can provide a thorough examination of how Xu Yuanchong reproduces “Three Beauties” in his English version of *Song ci*.

3. Reproduction of “Three Beauties” in Xu Yuanchong’s English version of *Song ci* from the Perspective of Translation Process Model

As is introduced before, Nida’s translation process model includes 4 stages, analysis, transfer, restructuring and testing. Since the last stage, testing, focuses on target readers’ response, which is beyond the scope of the study, the section will remove testing from the discussion below. And the other three stages will function as a descriptive framework to examine Xu’s English version of *Song ci*. The three-stage system has been briefly concluded by Jeremy Munday -- “the surface structure of the ST is analyzed into the basic elements of the deep structure; these are ‘transferred’ in the translation process and then restructured semantically and stylistically into the surface

structure of the TT.”^[3] And this is the basis for our discussion below.

3.1 Reproduction of Beauty in Sense based on Translation Process Model

Beauty in sense focuses on the artistic conception. And, according to Weng Yuling, the artistic conception in poetry relies on images.^[4] Therefore, this section will mainly center around the handling of images.

Images are often employed in classical Chinese poetry and *Song ci* is no exception. Over the past thousands of years, various images have spouted from our brilliant Chinese culture. For instance, moon is a common image that represents homesickness and nostalgia, as is shown in “但愿人长久，千里共婵娟” by Su Shi^[5]. Besides, there are many other common images like mume blossom, spring and river in classical Chinese poetry. Therefore, the handling of images becomes a frequent task for Prof. Xu when doing the translation, and on the other hand, the handling of images will have a great impact on the reproduction of beauty in sense in the translated version.

As follows are analyses of how Prof. Xu reproduces beauty in sense in his English version of *Song ci* in terms of images.

Example 1:

驿外断桥边，
寂寞开无主。
已是黄昏独自愁，
更着风和雨。

无意苦争春，
一任群芳妒。
零落成泥碾作尘，
只有香如故。^[5]

Beside the broken bridge and outside the post hall
A flower is blooming forlorn.
Saddened by her solitude at nightfall,
By wind and rain she’s further torn.

Let other flowers their envy pour!
To spring she lays no claim.
Fallen in mud and ground to dust, she seems no more,
But her fragrance is still the same.^[5]

In the stage of analysis, these images adopted in the original work should be deeply explored. Prunus mume is the primary image in this poem. In Chinese culture, the three durable plants of winter, prunus mume together with

pine and bamboo, are highly praised as “three cold-weather friends” which symbolize purity and nobility. The translator who is familiar with the background knowledge of prunus mume will easily figure out the poet’s intended meaning. It is the lofty character of prunus mume that is highly praised here. Naturally, the connection can be identified between the image of mume blossom and the poet, a patriotic poet who stuck to his position in a turbulent era. Besides mume blossom, there are also other common images such as “断桥”(broken bridge), “黄昏”(nightfall), “风”(wind) and “雨”(rain). All of these help create a gloomy atmosphere of sadness to pave the way for the praise of the nobility of mume blossom.

According to Nida & Taber, in the stage of transfer, semantic adjustment and structural adjustment should be taken into consideration.^[2] Since this part mainly focuses on images which are single words or phrases, structural adjustment won’t be included here. As for semantic adjustment, most images included in this poem don’t need it except the one, “驿站”. According to the Chinese notes, “驿站” is a place where letters or documents are delivered or where officials take a rest, get the supplies or change a tired horse for another one on a journey.^[5] There is no counterpart in the target language, so semantic meaning should be adjusted. And here, Prof. Xu has chosen “post hall” for “驿站”.

In the stage of restructuring, the style of original works should be taken into consideration. Therefore, choosing the most appropriate vocabulary in target language for these images becomes very important in this stage. Generally speaking, vocabulary often used in ancient literary works of the target language will be more appropriate for these images in *Song ci*. That is why Prof. Xu has chosen “nightfall” (old-fashioned according to Longman Dictionary of Contemporary English) instead of the frequently-used word “dusk” for the image “黄昏”.

3.2 Reproduction of Beauty in Sound based on Translation Process Model

It is well-known that *Song ci* can be sung to the music for entertainment, and beauty in sound is one typical feature of *Song ci*. According to the studies of modern cognitive linguistics and experimental psychology, human beings’ audiovisual perception is at the forefront of their ability of linguistic perception, and 87% of linguistic meaning is received and processed first through audiovisual perception.^[6] Therefore, beauty in sound plays a crucial role in the appreciation of *Song ci*, and reproducing beauty in sound should be a necessary task for translators.

Repeated words often appear in *Song ci* as a common stylistic device to achieve beauty in sound. And this part

will focus on how Prof. Xu reproduces beauty in sound in terms of repeated words in his English version of *Song ci*.

Example 2:

寻寻觅觅，
冷冷清清，
凄凄惨惨戚戚。^[5]

I look for what I miss;
I know not what it is.
I feel so sad, so drear,
So lonely, without cheer.^[5]

In the stage of analysis, the meaning and function of repeated words should be identified. The poet heaved a great sigh in the poem about her miserable life -- she lost her beloved husband and lived alone in a turbulent era. Repeated words help create a gloomy atmosphere for all the depressed feelings of the poet. And the poem, with these repeated words, can easily find emotional resonance in readers. With the key to the poet’s inner world, readers can fully understand her great sorrow and depression. Therefore, reproducing the great power of repeated words in the poem is a crucial task for the translator.

In the stage of transfer, both structural adjustment and semantic adjustment have been made. Since repeated words are not common in English for the sake of grammatical rules, Xu has replaced them with three complete sentences. As for the semantic adjustment, Xu has changed the subject of the second short sentence. The implied subject in the original poem is the indifferent and lonely world the poet was living while in Xu’s translation the subject is “I”, the poet herself. The reason why Xu has made the adjustment here is to restore the beauty of the poem by means of parallelism, a common stylistic device in literary works.

In the stage of restructuring, the original style of *Song ci* should be maintained. As rhyme is a striking feature of *Song ci*, techniques like parallelism, alliteration and end rhyme have been employed to restore the original style. The use of these techniques has not only depicted accurately the poet’s inner world in a natural way for the sake of target readers, but also reproduced the beauty in sound of the original work.

3.3 Reproduction of Beauty in Form based on Translation Process Model

According to Xu, beauty in form ranks the third after beauty in sense and beauty in sound in terms of the priority given in translating a poem.^[7] However, the importance

of beauty in form can never be denied. It can interact with beauty in sense or beauty in sound to help reinforce each other, and then magnify the beauty of the whole poem.

Antithesis is often employed in *Song ci* as an important technique to achieve beauty in form. This part will focus on how Prof. Xu reproduces beauty in form in terms of antithesis in translation.

Example 3:

此情无计可消除，
才下眉头，
却上心头。^[5]

O how can such lovesickness be driven away?
From eyebrows kept apart,
Again it gnaws my heart.^[5]

In the stage of analysis, the antithesis in “才下眉头，却上心头” should be interpreted. The antithesis has vividly depicted a picture in which once the poet’s frown of lovesickness is kept apart, her heart is occupied with this sorrowful feeling immediately. In this way, the poet’s lovesickness has been highlighted thanks to the clever use of antithesis in the original work.

In the stage of transfer, structural adjustment and semantic adjustment have been made here. “才下眉头” and “却上心头” are elliptical sentences without subjects. According to grammatical rules of English, the subjects have to be restored, and that is why structural adjustment must be made here. Therefore, Xu has turned the two elliptical sentences into one complete sentence with the past participle “kept” as the adverbial in his translation. , Also, semantic adjustment has been made due to the difference in word classes between Chinese and English. “上” and “下” can function as verbs in classical Chinese works while their English counterparts, “up” and “down”, can not do. In this way, Xu has shifted his focus from beauty in form to beauty in sound and instead picked out the verb, “gnaws”, with similar vowel pronunciation [ɔ:] to [aʊ] in “eyebrows”, to achieve beauty in sound in his translation.

In the stage of restructuring, the word order has been adjusted for the sake of rhyme. “Kept apart from eyebrows” is restructured as “From eyebrows kept apart” in Xu’s translation, together with “Again it gnaws my heart”, to achieve end rhyme. Although differences between the source language and the target language are a big obstacle for the translator to fully reproduce the beauty of antithesis, Xu has successfully restored the beauty of the poem by means of rhymes.

4. Conclusion

The study, taking Nida’s translation process model as a descriptive tool for the translator’s decision-making process, has successfully examined how Xu Yuanchong reproduces “Three Beauties” in his English version of *Song ci*. Based on the analyses of images, repeated words and antithesis, the study has found that Xu Yuanchong has made numerous adjustments in his translation to restore the beauty of *Song ci*. It is hoped that the study can shed some light on the translation of classical Chinese poetry and serve the purpose of telling China’s stories well.

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Research on the Optimization and Evaluation of Talent Development Pathways in Business Modern Industry Colleges under the Digital-Intelligence Era

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ABSTRACT

With the rapid development of the digital and intelligent era, China's industrial structure and talent demand have undergone profound changes. As pivotal platforms for industry-academia collaboration in cultivating applied talents, modern industry colleges specializing in business disciplines represent a critical educational vehicle, yet their developmental pathways and quality assessment mechanisms require further refinement. This paper begins by reviewing the current state and shortcomings of modern industry colleges in business disciplines, explores pathways for optimization, and constructs a quality evaluation system tailored to China's national conditions based on practical contexts. It aims to provide theoretical insights and practical guidance for achieving precise alignment between the educational chain and industrial chain of modern industry colleges in business disciplines during the era of digital intelligence.

In the era of digital intelligence, China's economy driven by big data, artificial intelligence, cloud computing, and other next-generation information technologies has entered the Business 3.0 era. This has brought about profound transformations in society's modes of production, organizational structures, business models, financial paradigms, and management approaches. As an applied science, Business disciplines must evolve in lockstep with this new epoch to underpin emerging industrial forms and operational paradigms. The rise of novel commercial models inevitably generates demand for a new breed of business talent, necessitating a heightened focus within higher education on the refinement and optimization of talent development pathways. This imperative calls for establishing Modern Industry Colleges to implement ho-

listic, all-encompassing cultivation of human capital.

1. Current Status and Key Challenges in the Development of Modern Industry Colleges

1.1 The "Precision Matching" feature has yet to be fully realized

Presently, numerous business-oriented modern industry colleges, despite adhering to national industry-education integration policies, exhibit a significant operational dissonance: the educational chain fails to precisely correspond to the industrial chain. This misalignment stems from a dual challenge. Although "precision matching" has been institutionalized through regulations, its implementation still lacks adequate support (Wang, 2023). On one hand, a

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discernible information asymmetry hinders the matching of talent supply and demand. There is a lack of real-time synchronization between the talent market and universities concerning specific competency requirements and shifting skill architectures in the digital-intelligence era. The rigidity of traditional semester-based curricular systems further impedes timely adaptation to front-line industrial changes. On the other hand, the nurturing mechanism itself is not systematized into a closed loop encompassing “demand identification, resource analysis, strategic configuration, and dynamic feedback.” Without this integrated system, educational outputs cannot simultaneously reflect structural reforms in the industry, leading to a tangible mismatch between the competencies students acquire and those the industrial ecosystem requires. Furthermore, the collaboration process is frequently hampered by lukewarm corporate involvement. Even within the framework of industry-affiliated institutions, corporate involvement may remain largely nominal. This lack of deep engagement inevitably severs the vital connection between the educational process and industry realities, resulting in training objectives, course materials, and teaching methods that are detached from the practical logic.

1.2 The multi-stakeholder collaborative governance mechanism is not functioning effectively

The development of Modern Industry Colleges constitutes a multi-stakeholder collaborative governance system involving universities, enterprises, local governments, and industry associations. However, its practice has yet to achieve effective synergy. On one hand, different entities have distinct development objectives: universities prioritize cultivating students’ competencies and ensuring academic quality, while enterprises place greater emphasis on cultivating qualified talent with market competitiveness and strong on-the-job readiness. Significant differences exist between the two in terms of educational pacing, resource allocation, and evaluation methods. On the other hand, the governance model of modern industry colleges remains predominantly “university-led with enterprise participation,” where corporate involvement lacks both breadth and depth, failing to leverage enterprises’ industrial strengths. Meanwhile, the establishment of diversified governance platforms that are information-based and data-driven has yet to be achieved. Insufficient flow of data, resources, and information among different entities has also resulted in low efficiency in collaborative governance. For instance, the absence of a unified collaborative platform in modern industry college management means communication between universities and enterprises

largely remains at the offline, manual coordination stage, preventing the full realization of their combined potential. Under the combined influence of these constraints, the collaborative education functions of modern industry colleges cannot be fully realized. Consequently, their governance ultimately remains superficial and formalistic.

1.3 The development of digital and intelligent educational resources is lagging behind.

Against the backdrop of the digital-intelligence era, Business Modern Industry Colleges are expected to construct an educational resource system that synchronizes with the industrial and technological chains. Yet, a marked misalignment persists in resource development. Firstly, a significant gap exists between training platforms and actual industrial applications. The integration of virtual simulation, digital twins, and authentic enterprise project scenarios into pedagogy remains limited, consequently depriving students of opportunities for complex competency training in realistic settings. Secondly, the teaching faculty generally lacks sufficient digital intelligence literacy. Teachers can only apply emerging technologies superficially in teaching scenarios, making it difficult to support competency-based educational models tailored to industry demands, such as intelligent supply chain management and data-driven marketing decision-making. Furthermore, funding and management mechanisms for jointly developed courses and practical training bases between universities and enterprises remain underdeveloped. Most collaborations are still in the “cooperative commitment” phase, failing to establish efficient, long-term operational frameworks. In summary, while these modern industry colleges emphasize digital and intelligent empowerment, they have yet to establish mature systems in resource development, faculty allocation, and platform support.

1.4 Lack of a Quality Evaluation System for Construction

A robust evaluation system for assessing the effectiveness of Business Modern Industry Colleges has yet to be fully developed, which significantly constrains their continuous quality improvement. First, the evaluation metrics lean heavily toward explicit indicators such as employment rates, graduate school admission rates, and student academic performance, while lacking robust mechanisms to measure implicit indicators like students’ digital literacy, cross-disciplinary capabilities, and job adaptability. Second, data collection dimensions are limited and technical support is inadequate. The absence of data-sharing platforms between universities, enterprises, and government entities results in a lack of horizontal

comparison and longitudinal tracking mechanisms during the evaluation process. Third, evaluation mechanisms lack continuous improvement cycles. Most college assessments remain confined to periodic reporting phases, lacking a closed-loop “evaluation-feedback-improvement” process. Furthermore, single-source evaluation bodies, unclear weighting criteria, and illogical indicator frameworks hinder accurate reflection of industrial colleges’ overall effectiveness in cultivating applied talent for the digital era. Consequently, the absence of a robust quality evaluation system severely impedes the achievement of modern industrial college development objectives.

2. Optimization Strategies for Talent Development Pathways in Business-Oriented Modern Industry Colleges in the Digital Intelligence Era

2.1 Reconstructing a Competency-Oriented Curriculum System Driven by Digital-Intelligence Technologies

Business modern industry colleges need to evolve their talent development focus from knowledge transmission to capability building, based on real-world industrial needs in the digital-intelligent age. The first step is to identify key competencies for modern business roles—like data analysis, cross-disciplinary integration, innovation in decision-making, and composite technical literacy—from an industry chain viewpoint, and formally set these as training objectives. These objectives should then directly translate into the structure of the curriculum modules. Second, break away from rigid thinking patterns by integrating typical scenarios such as intelligent supply chain analysis, digital marketing models, platform-based business models, and blockchain finance. Embed competency development tasks within real or simulated industrial environments (Jiang, 2024). Furthermore, organize classroom instruction through diverse methods including theoretical lectures, project-based practice, corporate case studies, and problem-driven research, emphasizing students’ ability transfer and practical application. Simultaneously, implement a dynamic adjustment system for course modules and content, revising them monthly or per semester. Continuously optimize and refine course modules and content based on industry shifts, corporate feedback, and student employment tracking data. The curriculum framework thus constructed realizes a training logic centered on “competency-based, job-oriented, and industry-contextualized” education, achieving high-level integration and collaborative talent development between industry and academia.

2.2 Establish a governance mechanism featuring deep collaboration among multiple stakeholders

Establishing an efficient collaborative training mechanism requires genuinely embedding diverse stakeholders—including universities, enterprises, governments, and industry associations—into the governance system of modern industrial colleges. This ensures shared resource development, joint mechanism oversight, and mutual benefit from outcomes. First, establish university-enterprise joint councils or professional committees where representatives from all parties participate in key aspects such as talent development planning, curriculum design, practical training base construction, and employment tracking. This guarantees direct enterprise involvement at the strategic level throughout the entire university education process. Second, sign collaborative education commitment and performance agreements with enterprises, incorporating factors such as corporate participation levels, resource contributions, and student competency development outcomes into governance assessment systems to ensure enterprises fulfill their educational responsibilities. Third, establish a multi-stakeholder coordination mechanism guided by government and involving industry associations. Supported by policy guidance, industry standards, and talent demand forecasting, this mechanism should foster an integrated framework where regional industries, educational resources, and social services converge (Cheng, 2023). Furthermore, an information-sharing mechanism should be established to aggregate talent supply-demand data, industrial development dynamics, and student growth trajectories, providing governance decision-making support for diverse stakeholders. Leveraging these mechanisms, modern industrial colleges can transition from loose collaboration to integrated governance, institutionalizing and systematizing university-enterprise collaborative education.

2.3 Strengthen the development of digital and intelligent educational resources and practical training platforms

To cultivate business-oriented applied talents for the digital intelligence era, modern industry colleges must strengthen resource and platform development based on practical needs. On one hand, grounded in industry training objectives and talent development needs, allocate “learn-do-apply” teaching resources. This includes introducing real corporate projects into classrooms, creating simulated real-world teaching scenarios, organizing interdisciplinary project competitions, and establishing workshops or practice bases through university-enterprise

collaborations for internships and practical training. On the other hand, regarding faculty development, university teachers should be required to regularly engage in corporate work, deeply participating in technological R&D to gain new knowledge and experience. Simultaneously, corporate mentors should be encouraged to participate in teaching processes and jointly evaluate students' practical skills. Additionally, a robust resource recommendation and feedback mechanism should be developed based on students' growth trajectories. By leveraging data on students' competency development, targeted resources and practical opportunities aligned with their skill progression can be precisely delivered. Through continuous advancement in these areas and strengthened platform development, students can gain comprehensive training within the "learn-do-apply" framework, thereby fulfilling the educational mission.

3. Establishing a Quality Evaluation System for Modern Industry Colleges in Business Disciplines

3.1 Establish a data-driven quality evaluation and continuous improvement mechanism

To optimize educational pathways, modern industry colleges in business disciplines should establish a data-driven, long-term mechanism for quality evaluation and continuous improvement. First, develop an indicator collection system based on data such as student competency development, output quality, employment competitiveness, and industry alignment. This system should cover metrics including student performance during enrollment, practical achievements, job-position matching, and competency transfer. For assessing student competency development, collect data on participation in practical activities, corporate evaluations, and job competency attainment. Regarding curriculum alignment, monitor course update frequency, corporate engagement levels, and consistency between graduate job roles and course content. For resource development, track metrics such as training base coverage rates, number of university-industry collaborative projects, and faculty participation rates in corporate initiatives (Lu, 2023). Second, develop data analysis methodologies to collect, analyze, mine, and monitor educational process data through student growth profiling, curriculum mapping analysis, and corporate feedback tracking. Third, apply evaluation outcomes to core improvement areas, including curriculum systems, resource allocation, industry-academia collaboration, and training platforms. Implement periodic adjustments, then

advance talent cultivation, resource distribution, and governance optimization based on the revised development plan. Fourth, ensure the transparency and participatory nature of the evaluation mechanism. This guarantees that universities, enterprises, and government agencies can access evaluation results and engage in improvement discussions, thereby establishing a genuine "monitoring-diagnosis-improvement" closed-loop system. Establishing this mechanism will provide robust support for modern industry colleges to continuously enhance educational quality in the era of digital intelligence.

3.2 Indicator System Design

The evaluation framework should be constructed upon a foundation of scientific rigor, operational feasibility, multi-tiered structure, and dynamic adaptability, with indicators systematically designed across macro, meso, and micro dimensions. Macro indicators include industry alignment (the degree to which talent development objectives match industry needs), depth of university-enterprise collaboration (the proportion of enterprise involvement in all stages of talent cultivation), and resource supply quality (the coverage level of practical training platforms and the degree of faculty professionalization). Mid-level indicators track operational aspects such as curriculum renewal frequency, student participation rates in corporate projects, and graduate career persistence. Micro-level metrics focus on individual outcomes including practical project performance, interdisciplinary competency assessments, and aggregated employer satisfaction ratings. Each indicator must possess clearly documented data sources, standardized calculation methodologies, and established evaluation criteria, all assigned appropriate weighting values. Crucially, the system requires embedded periodic review mechanisms to refresh its indicator library in response to industrial transformation and institutional development priorities.

3.3 Feedback Mechanism and Closed-Loop Improvement System

The evaluation system must not only ensure the timely release of evaluation results but also strengthen feedback mechanisms for both the university and enterprises, as well as for the college's principal leadership and relevant departments. This includes interpreting evaluation data, discussing improvement plans, and clarifying responsible parties. Improvement plans should incorporate recommendations such as using specific courses as breakthrough points and intensifying talent cultivation efforts, while

specifying timelines and responsible parties. Additionally, the college must institute a regime of systematic monitoring and evaluation at regular monthly or semesterly intervals to assess the progress of improvement initiatives. Data pertaining to the efficacy of these interventions must be rigorously collected and integrated into the subsequent evaluation cycle. This process ensures the establishment of a multi-stakeholder, multi-round feedback loop, thereby fostering continuous advancement through iterative refinement.

4. Conclusion

In summary, to effectively address the developmental bottlenecks and governance challenges confronting business-oriented modern industry colleges in the digital-intelligence era, a multifaceted optimization approach is imperative. This should encompass the restructuring of curriculum systems, the enhancement of multi-stakeholder collaborative governance, the construction of resource platforms, and the establishment of robust quality evaluation mechanisms. Concurrently, it is essential to develop an evaluation framework tailored to China's specific contextual requirements. This paper aims to provide universities, enterprises, government agencies, and other relevant stakeholders with a holistic conceptual reference for the development of modern industry colleges. Ultimately, it seeks to contribute to the refinement of educational mechanisms, improve the quality of application-oriented talent cultivation, and thereby support regional industrial transformation and the development of the digital economy.

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A Cross-Cultural Exploration of Perceived Teacher Expertise: Insights from Chinese Higher Education

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ABSTRACT

This review synthesizes recent scholarship (2022–2025) on perceived teacher expertise with a focus on Chinese higher education as a cross-cultural case. We definitionally represent expertise as a configuration of practices either incorporating the disciplinary knowledge (PCK/TPACK), enacted capabilities (adaptive expertise, teacher noticing), and socio-moral identity (fairness, care, professional integrity). We differentiate between the perceived and the actual expertise and demonstrate that the judgments of stakeholders, which are frequently represented by student judgments, reflect the affective and cultural cues, as much as the instructional quality, and require triangulated evidence. Using the heritage culture of Confucianism, we describe how moral authority and relational harmony are kept at the forefront of identifying expertise in China and we combine it with the global standards of dialogic-based teaching and feedback-striking teaching that involves the use of technology. We consider such methodological innovations as task-based tests, discipline-normed observation, and measurement cross-group invariance psychometric level that can be used to make plausible comparisons across groups. Other aspects that we examine include the context of policy such as the Double First-Class initiative, which presents occasions and stressors of identifying and funding expert teaching. The outline includes at its end a synthesizing cultural cognitive framework and an accessible policy, research, international collaboration strategy: match incentives to learning-based evidence portfolios; construct culturally responsive tools, with moral-relational measures on, and tie enactment classroom studies to organizational changes. A combination of the review will reinvent teacher expertise as a culturally mediated, evidence-based ability to transform disciplinary knowledge into consequential learning.

1. Introduction

Mastery by teachers has been considered one of the most influential variables affecting student outcomes in learning, institutional growth as well as the general development of the education. In the context of the sphere of higher education, teacher-expert perception is not only instrumental in relation to student motivation and engage-

ment but also influences the life of the institution, the trust of the academic community and the validity of passing on knowledge. As such, although it has been widely acknowledged that it is an important idea, the conceptualization of teacher expertise is quite complicated, disputed, and strongly rooted in the sociocultural circumstances^[1, 2]. Perceived teacher expertise is not limited to technical competence or knowledge in the subject it includes inter-

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personal skill, moral character, reflective practice and the capacity to evoke intellectual and intellectual curiosity. In turn, the degree of teacher expertise as a construction and perception is also an important aspect that needs to be comprehended in different cultural contexts to promote the development of theory and practice in the global higher learning sector^[1,3].

Cross-cultural studies of education carried out in the recent decades have highlighted the importance of the situational sensitivity during the investigation of pedagogical constructs. Educational beliefs and values do not emerge everywhere; they are both socially and historically conditioned based on long held cultural assumptions of teaching, authority and learning. In western societies, teacher quality is commonly linked with professional autonomy, innovativeness, learner centered pedagogy wherein the expert teacher is a facilitator of critical inquiry and critical thinking. Conversely, in Confucian-legacy cultures, including China, expertise is often viewed in terms of moral authority, scholarly rigor and virtue development. The teachers are not only seen as imparters of knowledge solely but also seen as ethical leaders who represent social unity and intellectual rigor. Such cultural orientations influence the views of students and their workmates on what should be regarded as expertise and, as a result, have varied expectations and evaluation criteria^[4,5].

The Chinese higher education is specifically a very good source to study the cultural dynamics of perception of teacher expertise. The Chinese system of higher education has radically changed over the last forty years, opening new access and diversifying mission, and internationalization via such measures as the Double First-Class plan. These reforms have brought in new academic excellence measures and a pressure on tension between research production, and teaching. The image of teacher expertise has taken the center stage in institutional performance and individual achievement as universities become more determined to increase their competitiveness in the global arena. This process, however, has not been a value-neutral one; it is a continuing negotiation process between the classical Confucian concepts of the good teacher, and the current world paradigms based on innovation, interdisciplinary, and student-centered learning. The analysis of the intersection of these two forces in the determination of perceptions of teacher competence in China provides imperative information on the changing role of the university teacher in the globalized world^[6,7].

Empirical research on perceived teacher expertise in China reveals several themes are recurrent with some of these themes being that of moral aspect of teaching, the role of relation harmony and the respect of academic au-

thority that has continued to be a perpetual phenomenon in China. There is a tendency of students to associate expertise with commitments, continual work and attentiveness, whilst institutional discourses are based on quantifiable results and pedagogic effectiveness. This and a wider epistemological conflict between collectivist values and western based systems of performance-based evaluation can be seen in this divergence. The fact that these paradigms coexisted forms a hybrid model of expertise which is both moral and instrumental at the same time, relational and technical. This hybridity led to the inapplicability of Western-based frameworks, as well as demands a culturally context-based interpretation that accepts the pluralism of educational values^[8,9].

Theoretically, views of teacher expertise have developed an initial perspective of cognitive models that applied a focus on procedural and declarative knowledge to a more comprehensive approach that involves social cognition, affect and professional identity. However, such models have been developed, to a large extent, in Western epistemic patterns, and might not be sufficient to reflect the socio-relational and moral contexts that define teacher expertise in non-western contexts. It can therefore be seen that cross-cultural inquiry is critical in re-evaluating the concept of universality of the existing theories. Placing teacher expertise in the cultural context of its functioning, the researchers will be in a better position to understand how the demands and requirements of the society, structural culture, and interpersonal relationships may impact or contribute to understanding professionalism and performance^[10].

In addition, the process of globalization and internationalization of higher education has been increasing the necessity of intercultural knowledge of pedagogical skills. Universities in China are hiring more foreign faculty, developing transnational alliances, teaching evaluation systems that are modelled after western universities. The developments change the landscape of understanding the recognition and values of teacher expertise across the cultural boundary. An example is the western-trained faculty in the Chinese universities, who are likely to have conflicting expectations on teacher student relationships, classroom power and assessment practices. Likewise, philosophies of Chinese teachers within the international setting tend to bargain over conflicting definitions of the concept of being an expert teacher. These exchanges offer productive areas within which the activities of negotiating, adapting, and exchanging cultural scripts of teaching expertise are produced to meet the demands of global education exchange^[11].

The aim of the review is to synthesize and critically

review the extant literature on the concept of perceived teacher expertise with a cross-cultural perspective in the specific context of findings that have arisen in the area of Chinese higher education. Through its theoretical, empirical, and contextual views, it aims at enlightening the manner in which teacher expertise is conceptualized, quantified, and appreciated in cultural settings, as well as the ways such perceptions impact on educational practices and policy [12]. Through this, the review will provide to the increasing excellence of culturally responsive higher education and internationalization of teaching. It highlights the importance of shifting towards the process of homogenizing models of teacher professionalism into more inclusive models that can take into account cultural particularity and yet provide mutual understanding. Finally, considering the perceived teacher expertise within the Chinese education system does not only provide a lens into modernization processes in Chinese education, but also provides a wider picture upon the globalization of the concept of what it means to be an expert within the learning environment of the twenty-first century classroom of the university [13-15].

2. Conceptualizing Teacher Expertise

2.1 Definitions and Core Components

The teacher expertise has changed to be perceived as a fixed stock of professional knowledge towards a dynamic and flexible capacity which incorporates cognition, pedagogy, ethics and professional identity. The concept of expertise as an automatized procedural and declarative knowledge in the early cognitive theories developed, but recent studies view it as a socially situated and context-dependent phenomenon. The concept of teacher expertise has now become heterogeneous in the highest education considering the combination of content knowledge, pedagogical content knowledge (PCK), reflection practice, and moral commitment [16].

In the recent systematic reviews, it is pointed out that successful teaching in the university requires a way that the knower is not only given the capacity to deliver the disciplinary content, but also has the capability of delivering it in forms that are accessible to the different learners—a characteristic attribute of PCK. Moreover, digital competence, emotional intelligence, and cultural sensitivity have become key aspects of expertise in higher education at the global level. Adaptive expertise theories, as well as other theories, emphasize the fact that expert teachers can use knowledge in new situations flexibly and not according to routine. The teacher expertise therefore includes the ability to make judgments, reflective and responsive deeds

in complex teaching settings [17].

This multidimensionality (which, however, applies to all areas of education) is also professional identity, including values, motivations, and ethical behaviors of teachers toward students and knowledge. The identity-based research demonstrates that the perception of teachers in terms of their moral and intellectual roles has a significant impact on the way students and peers view their professional knowledge. Therefore, teacher expertise is a social construct that has both individual and socially constructed recognition influenced by circumstances, culture and institutionalized expectations [18]. **Figure 1** illustrates the multidimensional nature of teacher expertise, emphasizing how cognitive, enacted, and ethical components interact to form a holistic view of expertise.

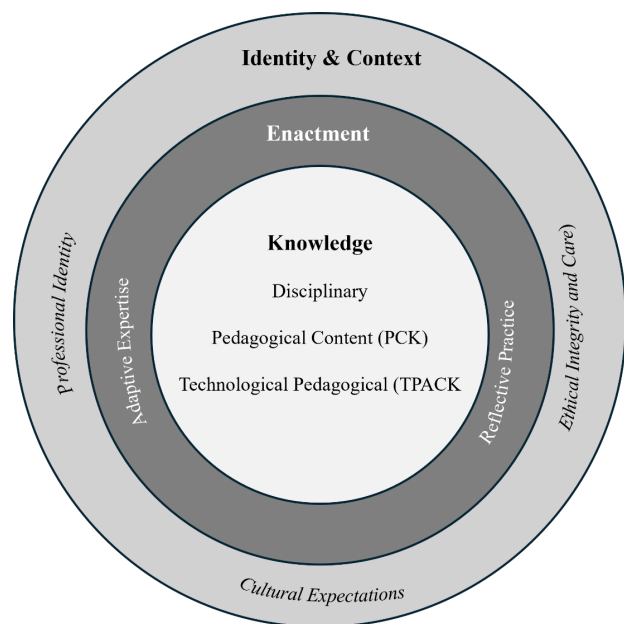


Figure 1. Conceptual Dimensions of Teacher Expertise in Higher Education

2.2 Perceived vs. Actual Expertise

Whereas actual expertise can be determined by the evidence of teaching effectiveness or learning improvement in students, perceived teacher expertise describes the appropriately perceived expertise to be held by other individuals, such as students, colleagues, and administrators. Practically, the two dimensions are not synonymous but coincide with each other. Recent meta-analyses prove that student ratings of teaching (SETS), which constitute one of the more ubiquitous proxies of perceived expertise, are driven by extraneous variables of extrinsic instructor rating and characteristics, grading leniency, and course difficulty. As a result, the perceived expertise tends to be rather affective and relational in character instead of being

merely cognitive and pedagogy^[19].

Cross-cultural studies have revealed that perception is ingrained within the cultural norms. In the Western setting, expertise has often been identified with the aspect of instructional innovation, learner independence, and professional independence. In systems influenced by Confucianism, however, as is the case in China, expertise is linked with moral authority, scholarly rigor, and teacher-student harmony^[20]. A recent study by Wang and Hu (2023) on Mingshi (identified as the expert teacher) within Chinese universities conducted in the mixed-methods revealed that perceived expertise included not only the mastery of the subject, but also ethical commitment, fairness, and care (*guanai*): attributes that refer to the conventional Confucian values. These results emphasize the idea of that expert is not a cross-cultural phenomenon, but a perceptual mediated phenomenon, which incorporates cognitive and moral legitimacy.

Recent theoretical developments propose differentiating **three levels of perceived expertise**:

1. Credibility (understanding and clarity).
2. Affective credibility (empathy, fairness and commitment).
3. Social believability (power and interrelational peace)^[21, 22].

This three-part model can be consistent with new world evidence, which has shown that both knowledge competence and relationship ethics are the components of trust students have in their teachers. Therefore, perceived expertise assessment needs tools that are more than a measure of simple satisfaction, a tool that is able to measure the interactions of skill, care and authority in a multidimensional way.

2.3 Measurement and Indicators

The measure of teacher expertise is also a methodological issue particularly when making comparison across the cultural background. The conventional methods of student assessment, peer-monitoring and self-assessment have been challenged on cultural and contextual biasness. The methodological innovations that have been discovered recently focus on triangulation and multi-dimensional tests that include cognitive, affective, and contextual indicators. Quantitative research is analyzing more validated scales based on PCK and adaptive expertise theories and is backed on by strong psychometric practices including confirmatory factor analysis and measurement invariance. Such methods are relevant to make sure that constructs of expertise are understood equally across groups and cultures. As an example, the Chinese operations of higher education studies have managed to adapt, and verify, mul-

ti-dimensional instruments of teacher expertise comprising of scales of moral commitment and relational sensitivity-dimensions that are typically not considered within Western measurements^[23, 24].

Measurement is also enhanced by qualitative research as it sheds light on the lived life of expertise. According to narrative and ethnographic literature, Chinese educators have defined expertise as a life-long process of self-development (*xiushen*), which is consistent with the Confucian views of the teacher as a moral exemplar. This is unlike the Westernism developmental models that value reflective implementation and evidence-based enhancement. These understandings stress searching appropriate context-based measurement models to explain cultural epistemological views and institutional realities^[25].

Higher realism in the quest to establish cross-cultural comparability, a forum amongst academics in support of hybrid methods is proposed, which will offer both quantitative rigor and qualitative richness. The indicators must include:

Knowledge-based dimensions: disciplinary conquest and pedagogical revolution;

Performance-based dimensions: responsive to feedback, adaptability, and responsive to innovations.

Relational dimensions: interpersonal trust, empathy and fairness.

Ethical aspects: professional uprightness and moral rectitude^[26].

Recent research suggests implementing multi-source evaluation frameworks which are student-based, peer-based, self-reflective and institutional review based. They in this way transcend the very small prism of teaching performance to one of holistic conceptualization of teacher expertise as a socially constructed and culturally embedded phenomenon.

3. Cross-Cultural Perspectives on Teacher Expertise

3.1 Cultural Frameworks

The cross-cultural theories aid in explaining the fact that expertise is not a universal template, but an intervention of culture. Work motivated by Hofstede demonstrates anticipations of the power distance, uncertainty avoidance, and long-term orientation using the perspectives of teacher authority, classroom relationship, and indicators that stakeholders interact with to test knowledge. Current systematic discussions on cultural-dimensions studies in education demonstrate that higher power distance environments are likely to condone teacher-managed discourse, formal authority and focus on rightness, less that

lower power distance environments condone dialogic engagement and pupil autonomy-differences that eventually precondition knowledge of such expertise identity and compensation in higher education systems ^[27].

In the Confucian Heritage culture (CHC), the role of teachers is adopted as a moral role model whose academic rigor cannot be separated with moral ethics. Recent literature keeps on recording CHC remnants in tertiary educational classes such as deference to rank, bias to systematic directions, and emphasis on exam-congruent savvy as well as the current diversification and renewal. As an illustration, studies on the conceptions of lecturers about online teaching have established that CHC-consonant emphases (e.g., systematic guidance, accountability to student moral-intellectual growth) influence descriptions of conception of good teaching (by proxy teacher knowledge)^[28]. On the same note, the studies on internationalization in Chinese universities also indicate that Chinese universities tend to subject international students to minimal classroom dialogue along with limited autonomy, citing the presence of enduring cultural-pedagogical norms that shape judgement of so-called expert teaching ^[29].

Moral-relational elements with a CHC lens sharpen attention to this aspect, (fairness, care, diligence), and only is part of expertise rather than a side-effect to technique. The concept of message of virtue and scholarly rigour and relational work Quality Qualitative studies and emerging career-trajectory research on Mingshi (expert teachers) expressly weaves together the understanding of the virtues, scholarly rigour and relational labour into place-specific intelligible descriptions of expertise - a culturally mediated criticism of more narrowly focused models about skill ^[30].

3.2 Comparative Studies

Higher-education studies captured comparatively indicate the overlap, as well as divergence of stakeholder values. New idea: Learner-centered innovation, support of autonomy and dialogue feedback are often mentioned in

dicators of expertise in a major portion of the West. Moral control, clarity in instructions, fairness, and perseverance are also relevant indicators of content mastery on top of the moral authority, instructional clarity, and fairness and sustained effort in the CHC setting in China and other related settings. The voice-based research among Chinese cross-border students highlights the perceived gap in the area of classroom conversation and formative feedback, which are usually attributed to expert practice in lower power distance settings, to demonstrate that the cultural scripts determine the standards according to which the expertise is evaluated ^[29].

At the instrument level, using student evaluations of teaching (SETs) as a proxy of perceived expertise will be difficult to do due to comparative work. There are recent analysis and reviews that report intersectional bias and mental-health/career effects on faculty as the SETs are metamorphosed into high-stakes position and they warn not to interpret the SET scores as indicators of instructional expertise without triangulation^[31]. Evidence from China-specific contexts (e.g., undergraduate medical education) similarly identifies multidimensional sources of SET bias, reinforcing the need for **measurement invariance** checks before cross-group comparisons of “perceived expertise ^[32].”

There are also comparative findings such as convergence pressures that are motivated by the digitalization and the global pedagogical currents. The research on the participation of Chinese students and classroom interaction indicates that the value in questioning, immediate feedback and working in groups is increasingly becoming a high priority, and therefore, signs of competence in terms of student-centered practice are becoming increasingly popular- albeit, mediated through local value systems ^[33]. As summarized in **Table 1**, cultural expectations of teacher expertise differ markedly across Western and Confucian-heritage contexts, influencing both the attributes associated with expertise and the criteria used to recognize it.

Table 1. Comparative Dimensions of Teacher Expertise Across Cultural Contexts

Dimension	Western/Anglo-European Perspective	Confucian-Heritage (Chinese) Perspective	Emerging Hybrid Traits in Chinese HE	Reference Studies
Epistemic Focus	Pedagogical innovation; learner autonomy; reflection	Knowledge mastery; moral exemplarity; authority	Integration of dialogic learning with structured authority	[34]
Pedagogical Orientation	Student-centered, inquiry-based	Teacher-centered, examination-oriented	Feedback-rich structured learning	[35]
Evaluation Criteria	Critical thinking, engagement, student satisfaction	Discipline mastery, effort, fairness	Multi-dimensional evaluation combining SETs with peer appraisal	[36]
Role Identity	Facilitator and mentor	Moral guide and knowledge transmitter	Adaptive professional blending care and innovation	[37]
Communication Norms	Dialogic, egalitarian	Hierarchical, respectful	Negotiated authority through care and competence	[38]

3.3 Intercultural Adaptations

Cultural scripts are seen in daily expertise judgments as observed in intercultural settings inter-university faculty, joint degree/TNE campuses and mixed domestic-international cohort classrooms. The qualitative study of international teachers in Beijing demonstrates that these teachers are framed both as the pedagogical innovators and the cultural brokers at the same time, but they have to master how to exercise the legitimacy in accordance with the local standards of authority, evaluation, and interpersonal relations management. In other words, expertise recognition depends on adaptive performances which have credibility to different audiences^[39].

Instruction concerns the transnational higher education (TNE), which introduces institutional complexity. In a recent communication-oriented model of so-called Triple-A (agility, adaptability, alignment) partnership, partners bargain over curricular standards, classroom discourse norms, and evaluation practices such that on either side of the partnership, expert teaching is intelligible. Such arrangements clarify what translation should be done to ensure that practices (e.g., discussion-led seminars, rubric-based feedback) are in line with host-campus requirements and student cultures^[40]. In the meantime, student-perspective research in Sino-foreign universities indicates how students engage in comparative and agglomerative learner-pedagogue relationship, with implications on how they ascribe expertise to faculty members in other traditions^[41].

Across these intercultural sites, three recurring adaptation strategies surface:

Norm bridging faculty members articulate dialogic assignments and assessment publicity explicitly, connecting them with desirable outcomes at the local level (e.g., performance in exams, employability);

Authority calibration- teachers communicate both friendly and well-organized with the aim of fulfilling expectations of guidance and allowing autonomy;

Triangulation of evidence-units Now the triangulation of perceptions (student/peer voice) by discipline-specific observation and task-based performance to measure expertise in a fair way across cultural lines. These approaches have been approved by the recent empirical images of the Mingshi development, as well as comparative classroom research that reflects a slow process of hybridization of what constitutes expert practice in Chinese higher education^[42]. As shown in **Figure 2**, the pathways to perceived teacher expertise in Western and Confucian-heritage contexts diverge, yet they converge in a hybrid model that integrates both structured pedagogy and relational care.

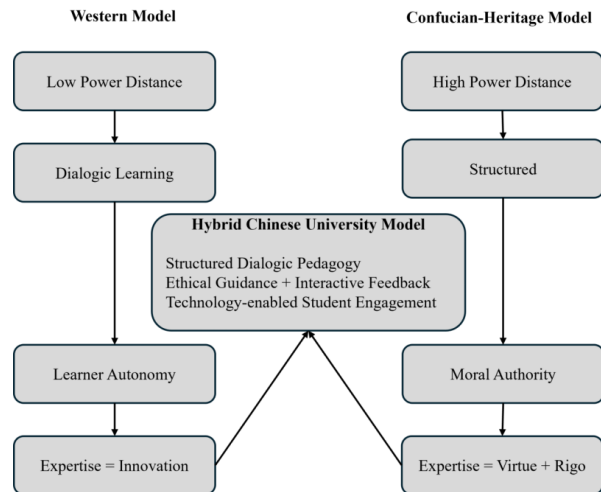


Figure 2. Cross-Cultural Pathways Shaping Perceived Teacher Expertise

4. Teacher Expertise in Chinese Higher Education

4.1 Historical and Cultural Context

The contemporary Chinese system of higher education is founded upon a long tradition of Chinese intellectualism wherein the teacher is taken to signify a moral exemplar and defender of academic rigor- a tradition of Confucian-era culture still presents today (i.e., virtue, fairness, industriousness, relationship harmony) that encapsulates the expectations of the contemporary Chinese understanding of what is meant by an expert teacher. The later historical record records that these moral-relational imperatives are still relevant in the wake of universities taking to the path of massification and globalization; educators continue to be required to balance between scholarly competence and moral practices and treatment of students, and perceptions of expertise tend to conflate knowledge competence with moral behavior and care. Newer literature is keen on tracking how the role of teachers as moral agents has been lessened in the face of social change where the moral authority has been negotiated where the innovative and student-centered practice have demanded innovation and student-centered practices^[43].

4.2 Contemporary Reforms and Expectations

During the last ten years, the national policy has put new pressures upon universities to become world-class (best referred to as the Double First-Class, DFC, program). Research on the DFC policy and its second-round modifications indicates how resource distribution, performance goals, and benchmarking of discipline have

changed institutional priorities, and how these changes can be applied to the definition of teaching expertise, its support and reward. On empirical studies have reported disproportionate efficiency in resources within elite institutions and managerial rationales that benefits calculated output; policy critique has found that indicators of excellence encourage alternative formative investing in pedagogy, except when there is specific governance regarding a balance between research and instruction quality and talent development^[44].

Expectations are also being redefined by parallel sectoral trends of internationalization, digital transformation, and quality assurance based on results. Students Studies on student interaction and pedagogy in CHC situations document an increase in focus on questioning, group work, and instantaneous comments, indicating that there is a gradual mutualization of indicators of expertise (not only authority-and-rigor but authority and dialogic and technology-supported facilitation^[33]). Meanwhile, employment aspects are important: research on Chinese college professors highlights the growing workload, role ambiguity (teaching-research-administration), and burnout threat, implying that organizational health and managerial practice is currently achieving the maintenance of professional teaching^[45].

4.3 Empirical Insights

Recent empirical researches in the Chinese higher education shed light on the perception of students and institutions of mathematical teacher expertise in practice. Qualitative, student-voice studies reveal that ratings of the clarity and equitability of instructions, as well as their care, reflect steadily through content-memorization of technological and file rich learning, including preferences of CHC-associations based on systematized instructions alongside a growing interest in dialogic and participatory learning methods^[46]. The instruments mediate perception too: studies of student ratings of teaching (SETs) in China especially in medical and liberal arts undergraduate education report multidimensional bias (e.g., grading leniency, course difficulty, halo effects), and call on the need to reward triangulated and discipline-sensitive evaluation systems^[32].

Cross-cutting analyses of DFC implementation at the policy-practice interface can be used to show that indirectly designed approaches to the organization of resources, incentives can lead to perceptions of expertise: like when promotion criteria and recognition programs foreground publication and grants, rather than pedagogical innovation, or when teaching excellence is realized but is poorly

resources. All this implies that the perceived expertise in Chinese universities is a hybrid where the moral-relational legitimacy and scholarly authority are still crucial, but more student-centered, feedback rich, and technology facilitated enactments are being identified as the hallmarks of the expert practice.

4.4 Challenges and Opportunities

To begin with, metric drift: high-stakes dependence on short signals (e.g., SET scores, volume of publications) can put the recognition of expertise and permanent learning out of proportion as well as create disparities among pedagogical inequity; recent experiments on meta-analyses of Chinese studies have described bias in SETs and psychological side effects on their use in a punitive manner. Second, work quality and health: a large body of evidence indicates that university lecturers with heavy role strain and burnout have lower needs to maintain an expert performance level, which can only be achieved through systemic concern of faculty staffing, leadership, and time to teach. Third, translating policies: DFC governance may skew excessively to research unless guidelines are explicitly put in place to frame and fund teaching building; assessments of the second round of DFC demand more equalized, talent-grounded models^[47].

Opportunities. Methodologically, higher education institutions can take triangulated portfolios of assessment that incorporate discipline calibrated observation, task-based and concept-based learning data, and in others that have been proven to be cultural measurement-invariant—therefore integrating recognition of expertise with that which in actual situations contributes to student learning. Institutionalization of teaching excellence could be planned through strategic policy windows of DFC around career tracks, curriculum and SoTL (scholarship of teaching and learning), and development of leadership aimed at the maintenance of humane workload norms. The increasing value of engagement and feedback in CHCs, pedagogically, provides impetus toward the scale version of hybrid models: organized authoritative and, at the same time, dialogic, technologically mediated facilitation - models that are culturally responsive and simultaneously fulfill the worldwide standards of expert instruction^[33].

Taken together, current research portrays Chinese higher education as a site where traditional moral-relational conceptions of the expert teacher are being braided with contemporary expectations for adaptive, evidence-informed, and student-engaging practice—an evolving synthesis shaped by national policy, institutional incentives, and classroom-level negotiation.

5. Methodological Approaches in Existing Research

5.1 Quantitative Studies

Recent quantitative work on teacher expertise in higher education clusters around three strands: In knowledge-based research (e.g., PCK/TPACK), which aims at clarifying constructs and improving the instrumentation, in perception-based research (e.g., student/peer ratings), which questions the construct validity and, finally, in psychometric research (e.g., measurement invariance), which facilitates valid comparisons across groups and cultures. A systematic scoping review of PCK in tertiary education (2024) at the high givenness, loves constitutes significant conceptual variety and proposes tools that represent enacted (topic-specific, context-specific) PCK and not only declarative knowledge, busts instrumentation employees with challenges in this regard, advocates observation and performance appraisal as work ally to survey measures^[48].

Regarding the perception side, more and more analyses are being issued against the application of student assessment of teaching (SETs) due to actual knowledge. A summary of threats to validity on high-stakes FAT-based decisions published in 2024 summarizes some of the threats to validity (grade leniency, course difficulty, rater bias), and risks associated with mental-health and career when SETs are utilized in high-stakes decisions, have been documented; multi-source triangulation is recommended. The 2025 empirical studies, again, indicate that there are no robust connections between SETs and independent measure of learning thus adhering to the diversification argument in evidence portfolio^[31].

In methodology, measurement invariance has become standard in Chinese university sample scale development and adaptation with multi-group CFA (and more and more, IRT-based methodology). Perception instruments in a 2024 validation of the Chinese Academic Self-Efficacy Scale (ASES-C), configural/metric/scalar invariance information is established among groups of genders, which offers a clean template (fit indices, reliability, invariance steps) of perception instruments in the field of expertise research. This kind of psychometric preparation is the only prerequisite to a comparison between latent means(s) among cohorts or among institutions or among cultures^[31].

5.2 Qualitative and Mixed Methods

Qualitative designs help to cast light on the process and relationship aspects of expertise which surveys may not capture. Longitudinal case studies and narrative inquiries with Chinese expert teachers (Mingshi), a braiding

of moral authority, scholarly rigour and relational labour across career trajectories to reveal the ways in which “expertise” is constructed and recognized within institutional ecologies. This work is based on the multi-wave interviews, reviewing the documents, and analytic mamboning as the means of modeling developmental paths and identity work through the time^[49].

Mixed-methods studies combine these stories with formal pointers (e.g., observation rubrics, concept-inventory earns or calibrated peer evaluation). Explanatory sequential logic is often used in designs to investigate what mechanisms underlie patterns of scores, and conversational logic (quant Cancel: qual) is used to triangulate student perceptions and evidence of the practices of enacted PCK/TPACK. Most PCK meta-analyses continue to be based on K-12, but greater-education studies are moving to implementing task-based elicitation (video-stimulated recall, PCK-mapping) to enable one to see adaptive decision-making as it occurs in real teaching. This is in direct response to the request of PCK reviews in richer, discipline-specific evidence of how expertise is manifested in university classrooms^[50].

5.3 Cross-Cultural Comparative Methods

Cross-cultural comparisons hinge on **equivalence of measurement** and **design choices** that respect cultural scripts. Three techniques are increasingly visible:

Multi-group CFA (MG-CFA) and multi-group IRT/DIF to achieve configural/metric/scalar invariance and then parallel refer latent means. The latest education research (both Chinese samples and international testing) gives the exemplars and reporting standards, step-by-step^[51].

Scaling up Consistency optimization (approximate invariance) of large multi-country studies in the case where full scalar invariance is unrealistic. Evidence-based principles and this critical review are now warning that alignment should be transparent (reporting fit, non-invariant items, sensitivity analyses) in order to prevent biased cross-national inferences- inferences that can be directly transferred to cross-system comparisons of perceived expertise^[52].

Some cross-culturally designed and inference preservation tools: translation/back-translation plus cognitive interviewing; anchoring items correspond to cultural constructively salient (such as fairness gonging or care guanai); triangulation of perceptions with evidence-calibrating disciplinary observation and learning. Chinese higher education In Chinese higher education, the qualitative-quantitative pairs of Mingshi and student voice are used to show how cultural expectations (moral-relational legitimacy, instructional clarity) can be made analytically

visible and subsequently represented quantitatively [49].

Practical takeaway. The essential design of an SCI-standard program of research - particularly with an orient on China - would be triangulated, multi-method designs, which (i) operationalize knowledge and enactment (PCK/TPACK + performance/observation), (ii) put in place proven measures of perception with established invariance, and (iii) is to ground qualitative inquiry in the sense of culture specific meanings of knowledge of

expertise. The scaffolding minimizes construct under-representation, single-source rating bias, and provides fair and cross-culturally viable estimates of teacher expertise as rated [48].

Table 2 summarizes the key methodological approaches employed in recent research on teacher expertise, highlighting strengths and limitations of each approach in the context of higher education studies.

Table 2. Methodological Approaches in Studies on Teacher Expertise (2020–2025)

Approach	Common Methods	Strengths	Limitations	Ref.
Quantitative	Surveys, PCK/TPACK scales, CFA, SEM, measurement invariance testing	Enables large-scale generalization; strong construct validity	Risk of self-report bias; limited contextual depth	[53]
Qualitative	Interviews, narrative inquiry, classroom ethnography	Captures moral-relational and contextual meanings; rich depth	Limited generalizability; time-intensive	[37]
Mixed Methods	Explanatory sequential (quant→qual), convergent parallel designs	Triangulation of perception and enactment; balances breadth and depth	Complex integration; high data demands	[54]
Cross-Cultural Comparative	Multi-group CFA, alignment optimization, bilingual instruments	Allows cross-system analysis; enhances global relevance	Translation and invariance challenges	[55]

6. Synthesis and Theoretical Integration

6.1 Integrating Cognitive and Cultural Perspectives

Viewing teacher expertise in higher education suggests a confounded complexity of knowledge structures (e.g. PCK/TPACK), of enacted capabilities (adaptive expertise, noticing), of socio-moral identity - all posted via local cultural logics. Cognitively, a 2024 higher education scoping review forms a belief that PCK is still fundamentally based yet frequently under-specified unless it happens to be topic-specific misconceptions and tasks that render the aspect of PCK-in-use specifiable; transient reviews of TPACK caution against checklist mentality and maintain that demonstrating technological enactment is more likely to provide evidence of its enactment instead of self-reporting. These strands may briefly be advised to promote performance-based modes of expertise instead of fixed inventories.

Bridging to enactment Expert teacher research in Orientation to teaching: urgently needed knowledge on professional practice failure to: Adaptive vs. Content Knowledge Expert teacher research explained. situations of Professional practice to describe how expert teachers bridge disciplinary knowledge to consequential learning: identification of salient cues, anticipation of difficulties, and reorganized instruction under constraint. New scholarship in the field of higher education transparently constructs adaptive expertise as breakdown-and-repair problem solving in live classes, whereas mathematics education generalizes noticing as the attentional and

interpretive engine of any in-the-moment decision-making-mechanisms that can be foundational to any integrative theorization of expertise [56].

Culturally, the focus of Chinese higher education is on the educator’s moral-relational legitimacy (virtue, fairness, care) as well as scholarly authority. Medications: Assessing how these CHC-remnants of pedagogical hypospadias, if not displaced are, in fact, contested in the age of massification, digitalization, and internationalization, yielding a hybrid ideal: authority and rigor coexisting with dialogic pedagogy popularized via feedback and feedforward. The Mingshi (expert teacher) literature exemplifies this inventive braid of excellence in relation and virtue and disciplinating action as a locally meaningful route to recognized expertise [43].

6.2 Emerging Patterns

The first is hybridization: the signifiers increasingly appreciated by higher education in China (formative feedback, collaborative work, technology-mediated interaction) come from the canon of Western learner-centric epistemic values - yet at the same time CHCs do not abandon proprietary virtues of ethical exemplarity and opacity. Additionally, as global competitiveness is the goal of national policy (e.g. Double First-Class), these two demands are translated into incentive frameworks in which research output may be supercharged while teaching recognition is inadvertently rewarded underfunded if governance does not explicitly weight rewards. This policy environment provides an environment that affects what performances

count as “expert”.

The second is methodological convergence to a process of triangulation. Across systems, an overuse of single source student evaluations is becoming indefensible: recent literature reviews validity threats (leniency, difficulty, rater bias) and career risks with SETs used punitively: growing pressure pushing the use of multi-source evidence (discipline-calibrated observation, task/learning gains, peer review) before drawing expertise conclusions. The cautions have been heard in Chinese studies, which reaffirms that purported expertise needs to be located in a multiplicity of evidence [44, 57].

Psychometric maturity is the third pattern for cross-cultural work. Measurement invariance testing (configural/metric/scalar) and has already become a common practice in Chinese university samples, increasing the reliability of cross-group comparisons and providing a sample for constructing perception scales containing moral-relational dimensions. Without invariance, latent mean differences are at risk of reflecting styles of response to the materials rather than substantive differences in perceived expertise [58].

6.3 Conceptual Gaps and an Integrative Model

Three gaps persist. (i) Using evidence in practice at university: beyond gaining traction since, the challenge in higher ed contexts is that professional reasoning on the fly is under-represented compared to K-12; task-, video- and observation-based research designs that account to micro-mechanisms of adaptive expertise is warranted. Second, regarding the construct coverage of cultural responsiveness, because moral-relational items (e.g., fairness, care) used by Chinese stakeholders in judging expertise were not included in most instruments, they are candidates for theorization and corresponding scale development. (iii) Policy-practice alignment- excellence agendas (i.e. DFC) are patchy in the extent to which they place their resources in supporting expert teaching as opposed to research; organizational studies are invited that link the design of incentives to perceptions and actual aspects of expertise [48].

We offer an Integrative Cultural-Cognitive Model of Perceived Teacher Expertise for Higher Education, which is as follows:

Knowledge Structures: PCK/TPACK discipline-specific knowledge requirements at the topic level.

Enactment Mechanisms: Adaptive expertise, not noticing as a mechanism of monitoring and coordination of goals, evidence, and constraints in real time.

Identity and Ethics: professional identity and moral-relational commitments as alters of legitimacy.

Cultural Frame: CHC and other cultural-logical all weights (power, equity, caring, dialogic practice).

Evidence Portfolio Multi-source, invariance-tested indicators (learning outcomes, performance tasks, calibrated observation, peer/student voice)

A model of recognition of expertise, which hold that recognition of expertise occurs when enacted knowledge and ethical identity is credible to stakeholders of the contribution within a given cultural frame as well as recommendations and practical design principles for recognizing in-service teacher expertise: Provide task-anchored assessments of PCK-in-use; Provide opportunities to document adaptive moves using noticing protocols; Provide measures of institutional moral relations validated for invariance; and Have practice-based incentives so that evidence portfolio-not one measure-drives recognition and development. In terms of a Chinese context, in terms of Chinese higher education specifically, this kind of a framework may be able to maintain some indigenous values, but it is also valid and fair enough on the international platform [59, 60]. Figure 3 presents an integrative model of teacher expertise, combining cognitive, cultural, and institutional dimensions to explain how expertise is constructed and recognized in higher education settings.

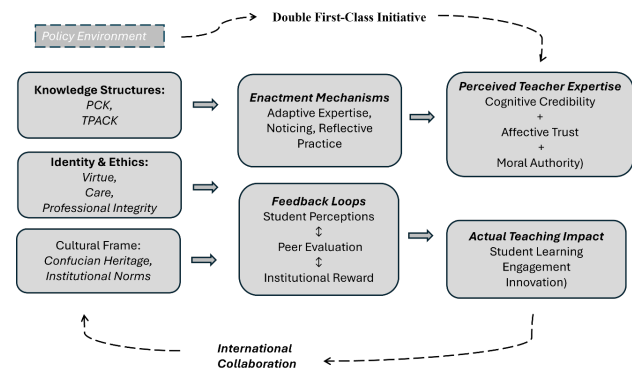


Figure 3. Integrative Cultural Cognitive Model of Perceived Teacher Expertise

7. Implications and Future Directions

7.1 For Policy and Practice

Chinese universities work within an institutional policy environment constituted by the context of the triple challenge of a Double First-Class (DFC) agenda, which has opportunities to institutionalize teaching expertise with research excellence if reconfiguring incentives to give equal importance to pedagogy. Concretely, institutions should (a) make teaching excellence a promotion-qualifying criterion (not only a tie-breaker), (b) earmark resources for pedagogy in disciplines (DFC and internal funding) and (c) institutionalize teaching-focused careers paths with parity in prestige and career progress. Recent policy analyses of the

second DFC round highlight the risks when output-heavy are used as an indicator - to the extent of crowding out developmental investments in instruction; therefore, it is important to have a balanced finding portfolio of indicators to avoid unintended distortions ^[61].

At the program level, evaluation systems should triangulate evidence and de-risk the overreliance on end-of-course student evaluations of teaching (SETs). Reviews show that intersectional biases and course-structure artifacts contaminate SETs; bias-mitigation prompts help but do not substitute for diversified evidence (peer observation, discipline-specific performance tasks, and learning gains). Policies should require multi-source dossiers for high-stakes decisions and explicitly prohibit single-metric determinations ^[62].

Culturally responsive practice in Chinese higher education should render visible moral-relational dimensions (fairness *gongxing*, care *guanai*, diligence) with which students and colleagues identify expertise and scale-up dialogic feedback-rich pedagogy related to global learner-centered paradigms. Empirical depictions of Mingshi (recognized expert teachers) demonstrate the ways in which credibility is developed at the nexus of disciplinary rigor and relational labour - institutions can facilitate this through mentoring systems, workload protection maintained for redesigning courses and recognition systems that reward ethical - relational contributions to learning communities.

7.2 For Research

First, it proceeds with theory-based constructs that combine concept/course related PCK with practice or doing (adaptive expertise, noticing), professional identity, and moral-relational commitments. The case for the importance of capturing PCK-in-use through uses of tasks, observations, and performance assessments (as opposed to using self-reports only) was manifested in the 2024 scoping review of PCK in higher education. Through the combined application of open task banks (containing common misconceptions, rubrics, and threshold concepts) researchers can collectively publish task banks to allow cross-disciplinary cumulative science ^[63].

Second, consider psychometrics to be infrastructure. Before cross-program, cross-cultural comparisons of perceived expertise, determine measurement invariance 'Tabular data' about measurement invariances within unified model - Tableaus of satiation items among variants - Which has cleaning and not so long as 'numerals' locus of instruction - Standardized non-invariance - Transparency of measurement invariance / non-invariance per item & report - Reports: satiation item level. Recent validations

obtained with Chinese university samples (e.g., ASES-C; bilingual instruments for LMS experience), form templates for CFA/IRT workflow and alignment and bilingual calibration: These practices should be routine with perception instruments used in expertise research ^[51, 64].

Third, decenter SET as dependent variables and outcomes. Given strong evidence of prejudice and poor relations to long-lasting learning, future studies are required which show multi-source portfolios (discipline calibrated observation, concept-inventory gains, authentic performance tasks) as models and test bias-intervention messaging as part of the research design, not as only a control. Among organizations for Safety Education and Training (SETs) included were pre-registered analytic plans, waveform covariates including course of difficulty/assessment regime and sensitivity analyses ^[65].

Finally, link micro to macro. In order to test the role of reward structures in characterizing perceived and actual expertise, studies will employ the proposed framework where policy research efforts at the classroom-level (enactment studies) are combined with policy research efforts at the organizational level (incentive designs during the DFC era). Mixed-methods designs - for example, explanatory sequential studies linking performance-based evidence to promotion decisions under varying policy regimes - can be used to find leverage points for (policy) governance reform.

7.3 For International Collaboration

Transnational education and joint programs constitute themselves ideal laboratories within which the process of co-defining expertise across cultural frames takes place. Partnerships ought to (a) co-create shared competency maps for expert teaching where pedagogy of the learning work CHC values (moral exemplarity, fairness, clarity) peeled and braided with dialogic, learning student-centered practices (b) use tri-jurisdiction evaluation portfolios (student/peer voice + calibrated observation + evidence of learning) with agreed psychometric standards (c) invest in faculty mobility with pedagogical purpose (co-teach studios, video-elicited lessons of learning studied) not short visits. Using Mingshi trajectories, this paper reveals ways in which contrasting forms of normalizing authority, care and excellence are locally woven into scholarly discourse; collaborative faculty development will translate some of those signals for mixed groups and dual degree ^[49].

Ongoing research publications, then, need both open methodological toolkits and ready-from-the-shelf tools: invariant, bilingual instruments, a bank of content and pedagogical tasks of chosen disciplines, observation protocols a notch above those borrowed directly from

K-12. Where institutions still need SITs, they should use bias-mitigation and norm-bridging messaging and communication to demonstrate why dialogic works, was-by-was, and formative feedback are signs of learning and pathways to examination success - global norms acting in line with local principles ^[66].

Bottom line: Policy windows, generated by DFC, maturing understanding of PCK-in-use, and growing psycho-

metric rigor make feasible the building of systems where perceived teacher expertise is not only recognized fairly, but it is also nurtured systematically, and aligned in what are the most productive drivers of student learning - with in China and in the context of international partnerships ^[67].

Table 3 outlines policy-level strategies and institutional actions that can help enhance the recognition and development of teacher expertise in Chinese higher education.

Table 3. Policy and Institutional Implications for Enhancing Teacher Expertise

Level	Policy Action/Strategy	Intended Outcome	Challenges	Illustrative Evidence/ Examples
National (Macro)	Integrate teaching expertise into Double First-Class performance metrics	Elevate teaching excellence alongside research outputs	Overemphasis on quantitative metrics	[68]
Institutional (Meso)	Create teaching-focused career tracks and SoTL (Scholarship of Teaching and Learning) funding	Retain expert teachers; foster pedagogical innovation	Resource allocation imbalance	[69]
Departmental (Micro)	Use multi-source evaluation portfolios (peer review, student learning data, self-reflection)	Fair and holistic expertise recognition	Administrative complexity	[70]
International/ Collaborative	Develop shared intercultural teaching competency frameworks	Cross-cultural comparability of expertise indicators	Linguistic and contextual adaptation	[37]

8. Conclusion

Teacher expertise isn't a static object of skills or an all-understood definition, but a dynamic cultural combination of knowledge, practice, identity and moral legitimacy. In the rapidly changing Chinese higher education, as this review has identified, the notion of expertise is indelibly shadowed by the Confucian traditions of selected values and the international trend of higher education pedagogy. This is a hybrid model-one where intellectual rigor and moral authority are linked with innovation, agility, and dialogic interaction. By placing the teacher's expertise within the intersections of cognition, culture, and also policy, the discussion recommends that excellence in teaching needs to be conceptualized as a process of social building up cultural meanings and contextually bargained, somewhat than an exclusively technical or individual constructive in nature. The review of recent empirical and theoretical research highlights a number of points. Cognitively speaking, pedagogical content knowledge (PCK) and adaptive expertise are of primary concern but are given separate meanings when integrated into Chinese cultural values dictating hard work, fairness, and relational harmony. Methodologically, cross-cultural validity and the concept of measurement invariance have become critical in establishing credible comparison in order for constructs of perceived expertise to not be skewed by linguistic or cultural bias. Institutional - DFC initiative has both created opportunities and tensions in driving quality enhancement at the same time as highlighting inadequacies

in the recognition and support of excellence in teaching. Collectively, these findings underscore the importance of multi-source, triangulated frameworks of evidence that will bring together evaluation of expertise with meaningful evidence of learning that is ethical and equity-minded in institutions. There are three imperatives that become apparent. First, funding systems need to be adjusted to acknowledge expertise as a measure of excellence, with the required incentives for pedagogical excellence equal to those for research output being built into measures of merit and funding. Second, theoretical integration should be broadened into areas where cognitive and cultural models are connected - reflecting how expertise is performed, attained and upheld across contexts. Finally, international cooperation should be employed to co-construct culturally inclusive conceptions of teacher expertise that draw together the aspects of pedagogical novelty common to the world's cultures and indigenous conceptions of moral and relational work with others.

In conclusion, the research about perceived teacher expertise in the Chinese higher education goes beyond the local; contributes to the global reconstruction of what it means to be an "expert" teacher in the twenty-first century. By embracing the twin perspectives of universal versus specific, the discourse about teacher expertise heads toward a less atomized, less stark, and much more authoring and responding to the demands of an interconnected, culturally insignificant Academic world.

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Dynamic Equilibrium: Exploring the Golden Mean in Pearl S. Buck's Life and Works

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ABSTRACT

Based on Tu's interpretation of the Confucian Doctrine of the Mean, this paper explores how Pearl S. Buck, a distinguished American writer, embodied the doctrine in her life and literary works. By analyzing Buck's autobiography and her life trajectory, it is found that she realized the reconciliation of cultural conflicts, empathetic understanding of "the other", and spiritual transcendence amid the tensions between Chinese and American cultures. The study reveals that Buck's cultivation of virtue ("sincerity to achieve virtue"), life practices ("attaining harmony"), and literary creation all resonate with the doctrine of the Mean: she resolved the tension of cultural identity through dynamic balance, integrated Chinese and Western wisdom via daily ethical practices, and ultimately verified the universality of the Mean as "a universal way" in her cross-cultural writings. This "wisdom resonance" not only uncovers the ideological foundation of Buck's cross-cultural practice but also offers a new perspective for understanding the value of the doctrine of the Mean in modern pluralistic societies.

The Doctrine of the Mean is one of the four Confucian classics. According to Tu (1976), its core idea is not simply "compromise and reconciliation" but constructs a system of Confucian moral metaphysics that integrates the way of universe, human nature, and moral practice. This classic has a profound historical accumulation, starting from the origin of the universe (the way of heaven), demonstrating the essence of human nature and the ultimate basis of morality, and ultimately pointing to how humans can achieve the ideal state of "Harmony Between Humans and Nature" through practice.

As the core of Confucian thought, the theoretical construction of the Doctrine of the Mean can be traced back to the statement "going too far is as bad as not going far enough" in the *Analects*. After systematic interpretation by the great Confucian scholar Zhu Xi (1130-1200 CE) in

the Northern Song Dynasty, it formed the practical wisdom of "Not leaning to either side, neither going too far nor falling short". It can be considered that the Doctrine of the Mean was the first to elevate Confucian moral thought to the level of "metaphysics". Sun (2025) introduces that since the mid-Northern Song Dynasty, Confucian scholars have tried to expand the scope of application of the doctrine of the Mean from ethics to a broader context.¹ The famous contemporary Confucian scholar Tu (1989) expanded it into a philosophy characterized by "Dynamic Equilibrium" in *Centrality and Commonality: An Essay on Confucian Religiousness*, emphasizing that the Mean is not eclecticism but seeking the optimal balance between ethics and practice in specific situations.² Zhang et al. (2001) proposed that the Mean is a concept with strong theoretical nature in Confucian thought, and it is also an

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action orientation in modern society with diversified value standards, which has universal enlightenment significance.³ Yang (2009) empirically tested the influence of the traditional cultural concept of “the Mean” using modern psychological research procedures in a sample of people, and found that the thought of “the Mean” occupies an important position in the way modern Chinese people conduct themselves.⁴

American writer Pearl S. Buck was born in the United States but spent her childhood in Zhenjiang, Jiangsu Province. The Chinese language and traditional Chinese culture accompanied her growth experience. In her early years, Pearl S. Buck’s father hired Mr. Kung, a learned Confucian scholar who was well-versed in Confucian thought and American history, to teach her. Pearl S. Buck mentioned Mr. Kung 36 times in her autobiography *My Several Worlds*, a frequency far higher than that of most characters. In Pearl S. Buck’s eyes, Mr. Kung was a philosopher, a wise man, and a prophet, who taught her many principles of how to conduct herself and handle things. Therefore, it can be considered that Pearl S. Buck’s growth process was deeply influenced by Mr. Kung and Confucian principles, and she subtly embodied the doctrine of the Mean in her life practice. Her spiritual world was early infiltrated by Chinese agricultural civilization and Confucian ethics. She loved the earth with the virtue of tolerance and the diligence and tenacity of Chinese farmers. When she grew up, she returned to American society and strived to correct Western prejudices and misunderstandings about the East, making great contributions to shaping a positive image of the Chinese people in the West, safeguarding the interests of Chinese Americans, and promoting humanitarianism. In her autobiography and life practice, she neither denied the value of Chinese culture because of Western “modernity” nor rejected Western civilization because of her emotional identification with China. Instead, she tried to find a just right middle ground in the tension between the two cultures.

Dynamic Balance: Buck's Echo with the Thought of the Mean

The opening paragraphs of *My Several Worlds* present a literary creation mood of integrating Chinese and Western elements and dynamic balance: “I looked at sunrise upon a scene so Chinese that did I not know I live on the other side of the globe, I might have believed it was from my childhood” (1).^① At this moment on Green Hills Farm, in Pearl S. Buck’s creative thoughts, China and the United States, the two different countries; and the present and

childhood, the two different periods, are balanced as two ends. Buck then began to write her autobiography with a peaceful attitude, narrating her colorful changing life experience and expressing her spiritual insights, “I remember, though I was only eight years old, that long moment I stood on the veranda, gazing upon the scene that was home to me because I knew no other. It was the same and yet I knew, child though I was, that it could never be the same again” (39).^②

Buck spent most of her life traveling between China and the United States, so she called China her “fatherland” and the United States her “motherland”. She received education in Chinese culture with Confucianism as the core since childhood. And she became familiar with American culture through her family and other channels, and after growing up. Later, she went back to the United States to study in university, gaining a deeper understanding of American society and experiencing strong cultural differences. Therefore, Buck had different cultural identities in different periods. There is no doubt that Buck was an identifier of traditional Chinese cultural values and had a strong sense of belonging. “I did not consider myself a white person in those days. Even though I knew I was not altogether Chinese, still I was Chinese enough”. (10)^③ After returning to the United States to settle down, Buck’s sense of belonging to her American identity took the upper hand, “It was in the last few months of this long rest that I was born, and thereby became an American citizen by birth as well as by two centuries of ancestry”. (3)^④ With the accumulation of life experience and the maturity of her thoughts and political awareness, Buck was well aware of the differences between China and the United States in race, culture, and development paths. The transcendence brought by the doctrine of the Mean enabled Buck to transcend the perspective of the “two ends” of China and the United States, and shape characters with a more “neutral” style, and express strong concerns about potential conflicts in the future.

Sincerity to Achieve Virtue: Buck's Way of Self-Cultivation

Virtue is one of the core pursuits of Confucianism. *The Doctrine of the Mean* mentions the “Three Approaches to Virtues”, which are wisdom, benevolence, and courage. Tu (2025) also pointed out that in the Confucian concept, individuals can obtain benevolence through spiritual cultivation, and the primary virtue is benevolence or humanity, which means goodness and beauty.⁵ Buck was not only

① Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day, 1.

② Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day, 39.

③ Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day, 10.

④ Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day, 3.

constrained by Western religious values but also had empathy for local culture due to her life experience in China. Her parents were calm and gentle, treating all ethnic groups equally. When evaluating people, they paid more attention to their character and intelligence rather than race and religious factors. Therefore, Buck's open-minded parents hired Mr. Kung, a learned scholar with the same surname as Confucius, to teach her Chinese. Mr. Kung was well-versed in both Chinese and Western learning, not only familiar with Confucian classics but also knowledgeable about American history. Perhaps because President Lincoln also has the characteristics of benevolence, Pearl S. Buck once mentioned that Mr. Kung highly respected President Lincoln, who emancipated the slaves.^① Such extensive knowledge and attention to the emancipation trend were rather rare among Confucian scholars at that time.

The Doctrine of the Mean puts forward the concept of sincerity in human way, believing that people need to achieve "sincerity" through cultivation, that is, to return to the true nature consistent with the way of heaven. The practice of "sincerity" includes "choosing the good and persisting in it", "learning extensively, inquiring carefully, thinking thoroughly, distinguishing clearly, and practicing earnestly" (Chapter 20). In the process of Buck's growth and self-cultivation, Mr. Kung undoubtedly played an important role. His teaching combining the inheritance of Confucian thought with the background of the times had a profound impact on Buck. "He instilled into me Confucian ethics while he taught me Chinese reading and writing, and I listened and learned".(50-51) So much so that Buck "supposed that Confucius was the same as her Father in Heaven".(51) Buck considered herself a disciple of Mr. Kung. After Mr. Kung passed away in 1905, Buck "wept at his funeral and wore a white band of mourning on my sleeve and bowed before his coffin with the lesser members of his family"^② according to Chinese traditions.

Under the guidance and inspiration of Mr. Kung, Buck loved reading. The Doctrine of the Mean endowed her a wide range of reading interests. She had a strong interest in both Chinese classical literature and European literature, and was able to skillfully use various narrative techniques for literary creation at an early age. She knew that Chinese novelists had skillfully used various writing and narrative techniques 500 years ago. Although Mr. Kung looked down on novel creation, thinking that novels were not elegant and could not be regarded as real literature. But Buck repeatedly lamented that her path as a writer may have a lot to do with the kind Mr. Kung. When she encountered continuous rejections in the United

States, Buck thought of Mr. Kung's Confucian teachings in the face of life's adversities and setbacks, so she did not feel overly depressed. When she achieved success and fame, Buck recalled her childhood experiences and the influence of Mr. Kung before the dinner held to celebrate her winning the 1938 Nobel Prize in Literature, "This mood went back to my childhood and perhaps partly to good Mr.Kung, who could not possibly know that even then I had intended to be a teller of tales, a writer of novels, though how that end was to be achieved I did not know."(83)^③

Mr. Kung often taught Buck to view problems from both historical and present perspectives with historical allusions, and once quoted the famous sentence from Song Yu (298-222 BC)'s *Ode to the Wind* in the Warring States Period, "The wind rises at the tip of the duckweed and stops among the grass", to illustrate that everything has a cause, there is no accidental event or effect without a cause, and one should observe surrounding problems with a connected mind. Buck gradually realized the importance of learning historical knowledge, If we want to "understand what happens now one must find the cause, which may be very long ago in its beginning, but is surely there, and therefore a knowledge of history as detailed as possible is essential if we are to comprehend the present and be prepared for the future." (57) In addition, under the teaching of Mr. Kung, Buck also learned to view the fate of characters and countries from the perspective of the Mean, "Fate is is not the blind superstition or helplessness that waits stupidly for what may happen. Fate is unalterable only in the sense that given a cause, a certain result must follow, a certain result must follow, but no cause is inevitable in itself, and man can shape his world if he does not resign himself to ignorance."^④

Mr. Kung also endowed Buck with a broad international perspective through the doctrine of the Mean. Therefore, during the some forty years she spent in China, Buck always consciously kept herself aware of "what was going on in the rest of the world, and especially in my own country. I had learned from childhood to recognize the peoples of the earth as members of one family, known or unknown, and had realized the practical meaning of this Chinese view of the globe".^⑤ Buck admired the Confucian ideal of a great unity world in her heart, believing that if Westerners could better understand the character of the Chinese and Asian people, they could communicate better and achieve peace between the two countries and the world. When establishing the East and West Association,

① Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day. 50.

② Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day. 66.

③ Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day. 83.

④ Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day. 57.

⑤ Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day. 381.

Buck mentioned that she had long received the teaching of the unity of all people from Mr. Kung: "If average Americans could see themselves as part of the human race, they might be stimulated to curiosity and thus to interest and thus to understanding. It was the usual technique of learning."^①

Attaining Harmony: The Doctrine of the Mean in Buck's Life

The life experience of cross-cultural communication allowed Buck to pay attention to many fields of the two countries from the perspective of "the Mean" and find similar views. For example, in early childhood education, Buck mentioned that the Chinese believed that it was important to allow a child to cry all his tempers and humors while he was small, for "if these were restrained and suppressed by force or fright, then anger entered into the blood and poisoned the heart, and would surely come forth later to make adult trouble".^② This is a thousand-year-old Chinese maxim and also a philosophical thought. Buck mentioned that nowadays this philosophical view is regarded as the most modern thing in Western society.

Buck also continuously practiced the doctrine of the Mean in her life, playing different roles: "In my home I was a housewife and nothing more, or so I felt. To my father I was only his daughter, as much as I had been when I was a child myself, while to my children I was mother. Among the white community I tried to take my place as neighbour and friend."^③ When Buck was in China, her family often moved between the north and the south, and she also traveled to many countries after marriage, so she could taste various local delicacies with different flavors. She could quickly adapt to both Chinese and Western styles of food as well as north and south flavors. Due to family reasons, Buck's family usually had solid American-style breakfast with good quality food; but for lunch and dinner, Pearl S. Buck's favorite was Chinese food that wins with taste. Buck often thought that "the servants' food was plain but delicious. Indeed the diet of the poor in China was remarkable for its flavour, if not for the variety which richer people had. Even their breakfast I liked much better than my own".^④ She could easily adapt to southern rice porridge and rice, northern steamed buns, pancakes, noodles, and dumplings. Buck also had a special preference for seasonal fruits and vegetables, and felt "disgusting" about products that are not in line with natural laws.

Tu (1986) emphasized that "Zhong" in "the Mean" is

not simply a "middle path", but "the creative transformation of conflicting parties in specific situations", which is a dynamic equilibrium that neither clings to one end nor eliminates differences. This is particularly prominent in the construction of Buck's cultural identity. When eating, her mother required her to keep her shoulders straight, and her father reminded her to hold her knife and fork like him. The difference between British and American styles in the use of knife and fork made Buck's head divided. Because "my mother ate her food as Americans do, cutting her meat and then putting down the knife to take up her fork, but my father ate as English people do, holding the fork in his left hand and the knife in his right, and piling the chopped food against his fork. Each gave me directions and sometimes I obeyed one and sometimes the other".^⑤ With different instructions from her parents, Buck had to use the middle way of the doctrine of the Mean again, sometimes listening to her mother, sometimes to her father, and then unconsciously accepted her parents' habits, deciding how to use the knife and fork according to specific situations at each meal. But compared with Western knives and forks, Buck's private choice was chopsticks.^⑥ Of course, the Mean does not mean mechanical compromise and tolerance. Buck realized the importance of counterattack or retort at an early age. Whenever she was called "a little foreign devil" by naughty children, she did not hesitate to fight back with curses, like "children of turtles".^⑦

Resonance of Wisdom: The Doctrine of the Mean in Buck's Literary Creation

Buck criticized the Western centralist stereotype of China as a huge pagan empire in urgent need of salvation, but she also did not avoid the limitations of Chinese traditions, profoundly exposing the constraints of feudal ethics on individuals. She praised the land ethics of Chinese farmers with reverence for nature and family responsibility as the core, and observed the collective predicament of Chinese society in the early 20th century from the Western perspective of "individual freedom". This "not clinging to both ends" of culture is exactly what Tu referred to as "Zhong" (the Mean), which is not a "compromise" between the two cultures, but a creative absorption of the values of both sides in a specific context, forming a cultural vision of a "third space". As the Doctrine of the Mean says, "grasping both ends and using the middle for the people", Buck's cultural identity was always in dynamic adjustment, but she always maintained the interactive experience and cognitive

① Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day, 428.

② Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day, 14.

③ Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day, 218.

④ Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day, 23.

⑤ Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day, 17.

⑥ Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day, 18.

⑦ Buck, P. (1954). *My Several Worlds: A Personal Record*. John Day, 36.

processing of the way of cross-culture.

Tu believes that the thought of “harmony” in the Doctrine of the Mean is reflected in the ethical level as “the appropriate expression of emotions and behaviors” (“The state before joy, anger, sorrow, and joy are expressed is called Zhong; when they are expressed and all hit the mark, it is called harmony”), that is, being sensitive to the situation of others and responding to differences with “empathy” rather than “opposition”. This is particularly prominent in Buck’s attitude towards “the other”, that is, the Chinese grassroots people. In her autobiography, Pearl S. Buck detailed her daily interactions with Wang Ma, her Chinese nanny, and farmers in rural northern Anhui: she did not look down on them with Western superiority, but observed their work, listened to their sufferings, and even shared hunger with them during the famine years. This acceptance of “the other” is not out of the condescension of “charity”, but derived from the recognition of “people having the same heart”. As she expressed: It is the friendship and warmth between people that make life meaningful.

When Buck returned to the United States, facing social problems such as racial discrimination and gender prejudice, she neither radically denied American civilization nor silently compromised, but appealed through writing. This way of response is also expressing and hitting the mark, neither suppressing anger at injustice nor intensifying conflicts with extreme confrontation, but promoting understanding with “just right” actions. This is exactly what Tu emphasized: “The ethical practice of the Mean is to achieve ‘harmony’ in specific relationships; it is not to eliminate differences, but to let differences show their value in coexistence”.

Conclusion

Pearl S. Buck was not a Confucian scholar, but the life practice in her life and works unexpectedly echoed the “thought of the Mean” interpreted by Tu. She maintained dynamic balance in cultural conflicts (Zhong), pursued appropriate responses in ethical practice (harmony), and achieved spiritual transcendence in daily writing (Yong). This precisely shows that the doctrine of the Mean is not a unique dogma of Confucianism, but a universal wisdom for human beings when facing “differences and coexistence”, and it is the universal way of the world.

The influence of Confucian thought of the Mean on Pearl S. Buck is not a linear relationship of “theoretical inheritance”, but a cross-cultural encounter of “resonance of wisdom”. The former provides deep methodological and value support for the latter’s cross-cultural writing by interpreting Confucianism’s “Dynamic Equilibrium”, “In-

ternal Transcendence”, and “Global Vision”; while Pearl S. Buck’s creation, with literary practice, confirms the universality of Confucian wisdom revealed by Tu, seeking balance in differences, recognizing the sacred in daily life, and achieving transcendence in dialogue. This echo is exactly a vivid proof of the thought of the Mean as “the universal way of the world”.

Pearl S. Buck’s creation has always been rooted in the concept of “daily life of human relations”. In *The Good Earth*, she described the cultivation and harvest of Chinese farmers; in *The Mother*, she showed the disputes and reconciliations between mothers-in-law and daughters-in-law in traditional Chinese families; in *Dragon Seed*, she praised the fighting spirit of the Chinese people. These are all specific and ordinary life scenes. But in these daily narratives, she always explored the core of human nature. By recording specific “human stories”, she let Western readers see the “dignity” of Chinese farmers and let Chinese readers understand the “struggle” of Western individuals in cultural conflicts. This continuous “cross-cultural dialogue” in daily writing is exactly the embodiment of Pearl S. Buck’s “Yong” (the common). She carried the constant way of common human nature with her constant writing practice. When Buck’s works attracted widespread attention and rethinking of the image of China, this daily practice transcended the limitations of personal creation and reached a height of “internal transcendence”, that is, achieving the spiritual height of “participating with heaven and earth” in specific affairs.

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Reading Proficiency Assessment and Influencing Factors Among Junior High School Learners in T-LNHS

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ABSTRACT

This quantitative descriptive study addressed the persistent and alarming challenge of poor reading proficiency among junior high school learners at Tawangan-Lusod National High School (T-LNHS) during the 2024-2025 academic year, a problem consistently highlighted by Phil-IRI data which indicated a majority of students were operating at the frustration and instructional levels. The investigation thoroughly examined the current comprehension levels, identified significant influencing factors, detailed the specific challenges faced by struggling readers, and recommended effective instructional interventions. Methodologically, the study involved 83 junior high school learners from Grades 7 to 10. Data on reading levels were gathered using existing Phil-IRI records, while information on influencing factors, challenges, and intervention perceptions was collected through a validated survey questionnaire. Statistical analysis employed descriptive measures and correlational tests to determine relationships among the variables. The results confirmed the urgency of the issue, showing that a predominant percentage of learners were categorized in the Instructional (55.42%) and Frustration (24.10%) reading levels. Crucially, correlational findings established that the Home Literacy Environment and Motivation and Interest in Reading were the external factors that most significantly affected the learners' comprehension levels ($p < 0.05$). Consequently, the study concluded that the reading proficiency deficit at T-LNHS was a complex issue rooted in both internal language skills and contextual influences. The research strongly recommended that future reading programs prioritized Differentiated Instruction and Explicit Vocabulary Instruction as key strategies to build metacognitive reading competence and cultivate a lasting, supportive reading culture.

1.0 Introduction

Reading proficiency and comprehension are foundational skills that form the bedrock of academic success and critical thinking in a knowledge-driven world. Globally, a persistent concern is the struggle many students

face with reading comprehension, which directly affects their academic performance and future opportunities. This challenge is particularly acute in contexts like the Philippines, where the ability to effectively read and understand texts is fundamental for growth, though a multitude of factors—from instructional methods to individual learner

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differences—can influence a student’s reading outcomes (Villanueva, 2022).

This issue is compounded by a consistent finding in research that positive reading attitudes tend to decline as students advance through their education (Logan et al., 2022), contributing significantly to a gap in 21st-century literacy demands. To counter this trend, independent reading, driven by student autonomy and choice, is highlighted as a powerful and effective intervention. Studies demonstrate that giving students choice over their reading material can significantly improve both their comprehension and the adoption of effective reading strategies (Mohamed & Syafiah, 2021; Wigfield et al., 2022), ultimately facilitating the lifelong achievement of reading proficiency.

Despite these established strategies, a critical problem persists at the local level. Data from the Philippine Informal Reading Inventory (Phil-IRI) at Tawangan-Lusod National High School (T-LNHS) consistently reveals an alarming challenge, with a high number of junior high school stu-

dents categorized at the “frustration” and “instructional” reading levels in both the 2022-2023 and 2024-2025 school years.

This persistent, school-specific deficiency underscores a gap in the existing literature, which, while abundant on a broad scale, lacks a focused examination of the factors influencing reading comprehension within this particular context. Therefore, this study aims to investigate the factors influencing the reading comprehension levels of junior high school learners at T-LNHS by answering the following questions: What are the reading comprehension levels of junior high school learners, and how do they vary across grade, gender, and age? What factors significantly affect reading comprehension? What specific challenges do learners at lower comprehension levels face? And, what instructional strategies and interventions can effectively address these difficulties? The findings will provide a data-driven basis for developing targeted and effective reading programs to improve academic outcomes at T-LNHS.

Conceptual Framework

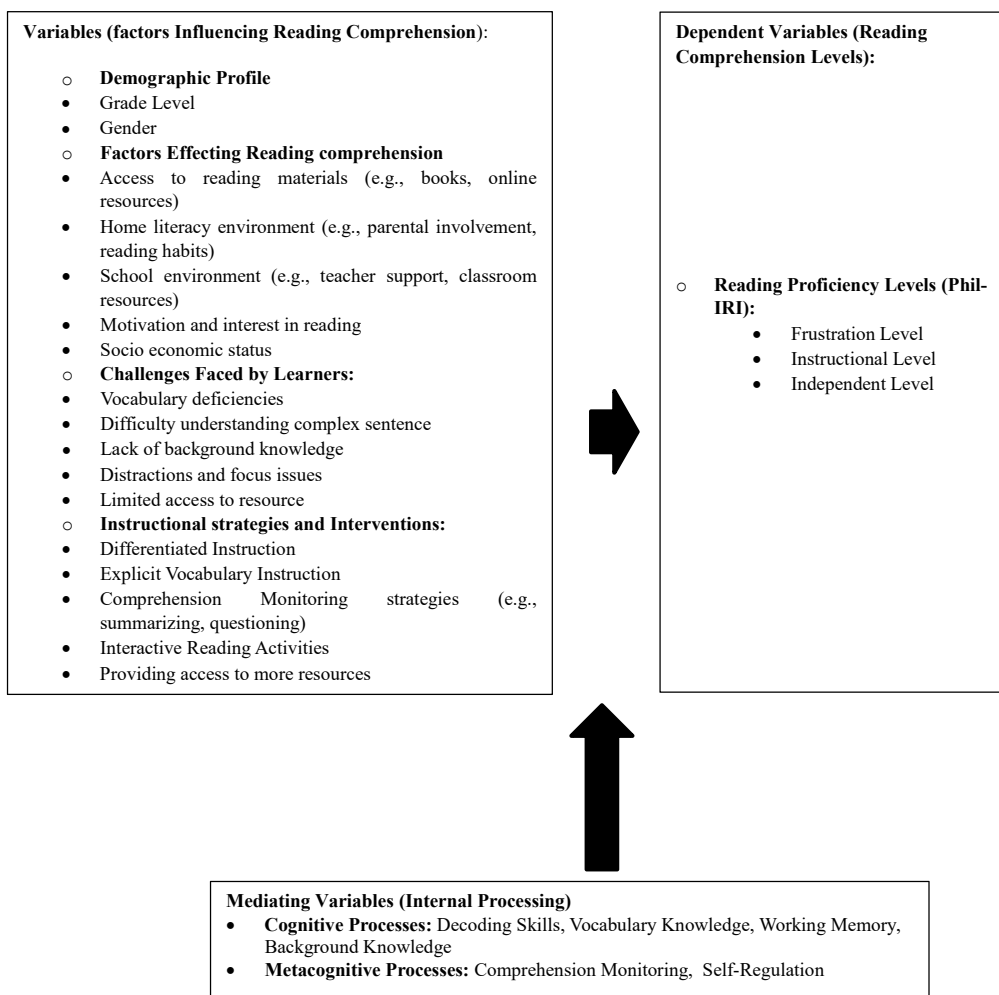


Figure above shows the relationship of the independent variables and dependent variables with its mediating variables.

Statement of the Problems

This study aimed to investigate the factors influencing the reading comprehension levels of junior high school learners at Tawangan-Lusod National High School. Specifically, the researcher sought to address the following questions:

1. What were the reading comprehension levels (frustration, instructional, independent) of junior high school learners, as measured by the Phil-IRI, and how did these levels vary across grade, genders, and age?
2. What factors (access to reading materials, home literacy environment, school environment, motivation, socioeconomic status) significantly affected the reading comprehension levels of junior high school learners?
3. What specific challenges (vocabulary deficiencies, difficulty understanding complex sentences, lack of background knowledge, distractions, limited access to resources) did learners at lower comprehension levels (frustration and instructional) face?
4. What instructional strategies and interventions (differentiated instruction, explicit vocabulary instruction, comprehension monitoring strategies, interactive reading activities, increased resource access) could effectively address the reading comprehension difficulties of learners at lower comprehension levels?

Scope and Delimitation

This study was sharply focused on investigating the reading comprehension proficiency of all junior high school students (Grades 7 to 10) enrolled at Tawangan-Lusod National High School during the 2024-2025 academic year. The research scope was strictly limited to assessing the students' reading levels—specifically categorized as frustration, instructional, and independent—using the framework provided by the Philippine Informal Reading Inventory (Phil-IRI). For the Data Collection Method, the study primarily relied on the existing Phil-IRI data that was already collected by the English teachers at the school, with minor supplementary observations or classroom assessments conducted only as needed to address the research questions. The research was strictly delimited from extending to senior high school students, examining other aspects of language proficiency beyond reading

comprehension, performing detailed qualitative analysis of individual reading strategies or learning disabilities, or implementing a comprehensive intervention program, though evidence-based recommendations for instructional strategies were provided.

Significance of the Study

This study aimed to investigate the reading comprehension levels of junior high school students at Tawangan-Lusod National High School, and the findings proved beneficial to the following stakeholders:

- To the learners. This research provided valuable insights into their reading comprehension strengths and weaknesses. By understanding their reading levels, learners identified areas for improvement and developed effective reading strategies to enhance their academic performance.
- To the teachers. This study equipped teachers with data-driven insights into the reading comprehension levels of their students. This information enabled them to tailor their instructional strategies, provide targeted interventions, and differentiate instruction to meet the diverse needs of their learners. Teachers used the findings to improve their teaching methods and foster a more supportive and effective learning environment.
- To Tawangan-Lusod National High School. This research contributed to the school's overall academic improvement by providing a clear understanding of the students' reading comprehension Levels. The findings informed school-wide initiatives, curriculum development, and resource allocation to enhance reading instruction and promote academic access. This also helped improve standardized test scores and overall school performance.
- To future researchers. This study served as a valuable resource for future research on reading comprehension in educational settings. It provided a methodological framework and baseline data that was used to further explore factors influencing reading comprehension and evaluate the effectiveness of interventions. This research also inspired further studies on related topics, such as literacy development and effective reading instruction.
- To the researcher. Conducting this research enhanced the researcher's skills, including data collection, analysis, and interpretation. It also provided with a deeper understanding of reading comprehension and its impact on reading learning, contributing to professional development.

2.0 Methodology

2.1 Research Design

The study employed a quantitative research approach utilizing a descriptive-correlational design to assess the reading comprehension levels of junior high school learners and determine the significant factors and challenges associated with their proficiency.

This methodology is highly suitable as the descriptive component allows for the detailed and systematic description of the current state of reading proficiency and the challenges faced by the learners, while the correlational component establishes the non-causal relationship between these variables and potential influencing factors (e.g., motivation, home environment), a fundamental application of this design in educational research (Bhandari, 2023).

2.2 Participants and Sampling

The target population for this study was the entire cohort of junior high school learners (Grades 7 to 10) enrolled at Tawangan-Lusod National High School (T-LNHS) during the 2024-2025 academic year. Due to the small, defined, and accessible population of N=83 learners, a census sampling technique was utilized, ensuring that all eligible students were included as participants in the study.

2.3 Instruments and Validation

Two primary instruments were used:

1. **Philippine Informal Reading Inventory (Phil-IRI)**
Data: Existing Phil-IRI pre-test records, collected by the school's English Department, served as the primary source for classifying learners into Frustration, Instructional, and Independent reading levels. These scores were retrieved with permission from the school administration.
2. **Validated Survey Questionnaire:** A self-developed, four-part survey questionnaire was administered to gather data on demographic profiles, factors affecting reading comprehension, specific reading challenges, and perceived effectiveness of instructional strategies. The questionnaire underwent expert validation by three language and research teachers in the institution. Following revisions, a pilot test was conducted with 30 non-participant junior high school students. Reliability was established using Cronbach's Alpha, which yielded a coefficient of 0.89, indicating high internal consistency and reliability for the instrument's use in the main study.

2.4 Data Gathering Procedure

Following ethical approval, the researcher secured permission from the School Head of T-LNHS. The survey questionnaire was administered during designated class periods. Phil-IRI data were aggregated and anonymized by the school's English Coordinator before being released to the researcher for analysis. The entire data gathering process was completed within four weeks.

2.5 Ethical Considerations

The study adhered strictly to ethical research guidelines. Informed assent was secured from all junior high school participants, and written informed consent was obtained from their parents or legal guardians. Participation was voluntary, and participants were guaranteed confidentiality and anonymity, with all collected data being used solely for academic purposes and stored securely.

3.0 Results and Discussion

This chapter discusses the results of the research conducted at Tawangan-Lusod National High School about the reading comprehension levels of junior high school learners.

3.1 Levels of Reading Comprehension

The data in Table 1.a reveals that a majority of Grade 7 students, both male and female, fall within the "frustration" level of comprehension. Male students' comprehension scores range from 15% to 50%, with an General Weighted Average (GWA) of 30.25%, indicating significant difficulties in reading comprehension. Female students exhibit slightly higher scores, ranging from 33% to 63%, but a considerable portion still falls under the "frustration" level, with a GWA of 45%. This indicates that while females perform slightly better than their male counterparts, both genders still struggle with reading.

The results in Table 1.b indicate that both male and female Grade 8 students predominantly fall under the "frustration" level of reading comprehension. The GWA for males is 32% and for females it is 37%, with an overall GWA of 35%. This suggests that students face significant difficulties with comprehension tasks, with females performing slightly better than males.

The table present data academic performance of Grade 9 students, categorized by gender. The data reveals that a majority of students, both male and female, fall within the frustration level of comprehension. Among male students, comprehension scores range from 23% to 40%, within an overall General Weighted Average (GWA) of 33%, indi-

cating significant difficulties in reading comprehension. Similarly, female learners exhibit slightly higher scores, ranging from 18% to 70%, yet a considerable portion still

falls under frustration level. The GWA for females is 49%, slightly better than their male counterparts, but still indicative of reading struggles.

Table 1.a: Level of Reading Comprehension of Grade 7 Students

Student	Comprehension Score	Comprehension Level
Male		
A	35%	FRUSTRATION
B	18%	FRUSTRATION
C	38%	FRUSTRATION
D	43%	FRUSTRATION
E	23%	FRUSTRATION
F	20%	FRUSTRATION
G	30%	FRUSTRATION
H	43%	FRUSTRATION
I	15%	FRUSTRATION
J	18%	FRUSTRATION
K	30%	FRUSTRATION
L	50%	FRUSTRATION
Total GWA	30.25%	FRUSTRATION
Female		
A	60%	INSTRUCTIONAL
B	53%	FRUSTRATION
C	40%	FRUSTRATION
D	38%	FRUSTRATION
E	38%	FRUSTRATION
F	50%	FRUSTRATION
G	60%	INSTRUCTIONAL
H	38%	FRUSTRATION
I	45%	FRUSTRATION
J	43%	FRUSTRATION
K	43%	FRUSTRATION
L	63%	FRUSTRATION
M	33%	FRUSTRATION
N	45%	FRUSTRATION
O	45%	FRUSTRATION
P	43%	FRUSTRATION
Q	33%	FRUSTRATION
Total GWA	45%	FRUSTRATION
Over All GWA	39%	FRUSTRATION

Table 1.b: Levels of Reading Comprehension of Grade 8 Students

Student	Comprehension Score	Comprehension Level
Male		
A	48%	FRUSTRATION
B	45%	FRUSTRATION
C	43%	FRUSTRATION
D	35%	FRUSTRATION
E	34%	FRUSTRATION
F	34%	FRUSTRATION
G	30%	FRUSTRATION
H	28%	FRUSTRATION
I	23%	FRUSTRATION
J	23%	FRUSTRATION
K	13%	FRUSTRATION
Total GWA	32%	FRUSTRATION
Female		
A	53%	FRUSTRATION
B	50%	FRUSTRATION
C	48%	FRUSTRATION
D	45%	FRUSTRATION
E	40%	FRUSTRATION
F	40%	FRUSTRATION
G	40%	FRUSTRATION
H	38%	FRUSTRATION
I	35%	FRUSTRATION
J	35%	FRUSTRATION
K	35%	FRUSTRATION
L	34%	FRUSTRATION
M	30%	FRUSTRATION
N	28%	FRUSTRATION
O	28%	FRUSTRATION
P	23%	FRUSTRATION
Q	20%	FRUSTRATION
Total GWA	37%	FRUSTRATION
Over all GWA	35%	FRUSTRATION

Table 1.c: Levels of Reading Comprehension of Grade 9 Students

Student	Comprehension Score	Comprehension Level
Male		
A	23%	FRUSTRATION
B	33%	FRUSTRATION
C	40%	FRUSTRATION
D	38%	FRUSTRATION
E	30%	FRUSTRATION
F	35%	FRUSTRATION
Total GWA	33%	FRUSTRATION
Female		
A	55%	FRUSTRATION
B	43%	FRUSTRATION
C	58%	FRUSTRATION
D	45%	FRUSTRATION
E	48%	FRUSTRATION
F	55%	FRUSTRATION
G	55%	FRUSTRATION
H	48%	FRUSTRATION
I	18%	FRUSTRATION
J	70%	INSTRUCTIONAL
K	63%	INSTRUCTIONAL
L	53%	FRUSTRATION
M	28%	FRUSTRATION
N	63%	INSTRUCTIONAL
O	30%	FRUSTRATION
Total GWA	49%	FRUSTRATION
OVER ALL GWA	41%	FRUSTRATION

Table 1.d: Levels of Reading Comprehension of Grade 10 Students

Student	Comprehension Score	Comprehension Level
Male		
A	28%	FRUSTRATION
B	40%	FRUSTRATION
C	38%	FRUSTRATION
D	40%	FRUSTRATION
E	38%	FRUSTRATION
F	35%	FRUSTRATION
G	28%	FRUSTRATION
Total GWA	35%	FRUSTRATION
Female		
A	50%	FRUSTRATION
B	58%	FRUSTRATION
C	43%	FRUSTRATION
D	55%	FRUSTRATION
E	50%	FRUSTRATION
F	48%	FRUSTRATION
G	45%	FRUSTRATION
H	38%	FRUSTRATION
I	38%	FRUSTRATION
J	35%	FRUSTRATION
K	33%	FRUSTRATION
L	25%	FRUSTRATION
Total GWA	43%	FRUSTRATION
Over All GWA	39%	FRUSTRATION

The tables present data academic performance of Grade 10 students, categorized by gender. The performances are measured in percentages, with an associated frustration indicated for all students. For male students, the percentages range from 28% to 55%, with a total general weighted average (GWA) of 35%. Similarly, female students show percentages ranging from 25% to 58%, with the total GWA of 43%. Despite the slight difference in overall GWA, both male and female students are classified under the frustration level, suggesting academic struggles across the group.

The data in Table 1.a-d reveals that a significant majority of junior high school students at T-LNHS fall within the “frustration” and “instructional” levels of comprehension. The overall General Weighted Average (GWA) shows a consistent struggle across all grades, with Grade 8 students having the lowest overall GWA at 35%. This finding is particularly concerning as it suggests a widespread need for guided support and intervention to improve basic reading comprehension skills.

Delving into the comparative analysis, a clear trend emerges across all grades: female students consistently exhibit a higher overall GWA in reading comprehension than their male counterparts. This is evident in the specific GWA comparisons for each grade: Grade 7 (Female GWA: 45% vs. Male GWA: 30.25%), Grade 8 (Female GWA: 37% vs. Male GWA: 32%), Grade 9 (Female GWA: 49% vs. Male GWA: 33%), and Grade 10 (Female GWA: 43% vs. Male GWA: 35%). While this suggests a gender-based difference in performance, it is crucial to note that a significant majority of students in both genders across all four grade levels are individually classified at the “frustration” reading level, highlighting that the comprehension challenges are not limited to one group but are a widespread issue requiring focused intervention.

3.2 Factors Affecting Junior High School Learners’ Reading Comprehension Levels and Correlation with Phil-IRI Scores (N=83)

This table shows the mean level of agreement/frequen-

cy for each factor item and the results of the correlation analysis against the learners’ reading comprehension lev-

els. The interpretation of the mean is based on a 4-point scale (e.g., 2.51–3.50 = Most Often/High).

Factor (Independent Variable)	Mean Score (Perception)	Std. Deviation	Correlation Coefficient (r)	P-Value (p)	Decision	Interpretation (Relationship to Phil-IRI Score)
1. Home Literacy Environment	2.81	0.78	0.452	0	Reject H0	Highly Significant
2. Motivation and Interest in Reading	2.79	0.78	0.398	0.001	Reject H0	Significant
3. Access to Reading Materials	2.33	0.85	0.15	0.18	Accept H0	Not Significant
4. School Environment	2.4	0.75	-0.05	0.65	Accept H0	Not Significant
5. Socioeconomic Status (SES)	2.5	0.9	0.08	0.45	Accept H0	Not Significant
6. Internal Cognitive Challenges*	2.55	0.82	0.2	0.07	Accept H0	Not Significant

Not at All (1.00-1.75), Often (1.76-2.50), Most often (2.51-3.25), Always (3.36-4.00)

The correlational analysis provides strong empirical evidence that the Home Literacy Environment and Motivation and Interest in Reading are the most critical factors influencing reading proficiency at T-LNHS. Both factors were perceived by students as being present “Most often” (M ≈ 2.80) and demonstrated a significant positive relationship with Phil-IRI scores (Rejecting H0). Specifically, the Home Literacy Environment showed the strongest and highly significant positive correlation (r=.452,p=.000), indicating that a supportive, literacy-rich home is crucial for student success—a finding that consistently mirrors international research emphasizing parental involvement in mitigating academic struggles (Ribeiro et al., 2021). Similarly, the significant positive correlation with Motivation and Interest (r=.398,p=.001) supports the literature that fostering intrinsic motivation translates directly into enhanced comprehension and higher scores (Mohamed & Syafiah, 2021; Wigfield et al., 2022). Crucially, factors such as Access to Reading Materials, School Environment, Socioeconomic Status, and Internal Cognitive Challenges did not show a statistically significant relationship to reading comprehension levels, suggesting that while they may be present, the leverage points for intervention lie primarily in bolstering home support and student motivation.

3.3 Strategies and Perceived Challenges

Table 2.b: Strategies Used to Overcome Comprehension Difficulties

When you have a trouble understanding a text, which of the following you usually do?	Mean	Interpretation
a. Read the passage	2.89	Most often
b. Look up unfamiliar words	2.82	Most often
c. Ask someone to explain	2.72	Most often
d. Use a dictionary or online resources	2.68	Most often

Not at All (1.00-1.75), Often (1.76-2.50), Most often (2.51-3.25), Always (3.36-4.00)

Despite a generally positive attitude, the high frequency with which students report struggling to understand (M = 2.45) and remember (M = 2.50) what they read highlights a critical gap between self-perception and actual comprehension skills. When faced with these difficulties, the learners proactively employ several self-regulation strategies, all interpreted as being done “Most often.” The most common approaches are rereading the passage (M=2.89), looking up unfamiliar words (M=2.82), and asking someone to explain (M=2.72). These deliberate and active behaviors strongly align with metacognition theory (Zila & Septiana, 2024), which emphasizes the importance of students actively monitoring their comprehension and adjusting their understanding through targeted fix-up strategies. Furthermore, the active use of external aids like a dictionary or online resources (M=2.68) provides empirical evidence of the students’ proactive efforts to enhance their lexical quality, a factor that both Wealer et al. (2024) and Bhattacharya et al. (2024) identify as fundamentally crucial for deeper text comprehension. This data confirms that while students utilize basic self-monitoring skills, the intensity of their difficulties necessitates the frequent activation of these coping mechanisms.

3.4 Instructional Strategies and Interventions

Table 2.c: Most Helpful Types of Support for Improving Reading Comprehension

Which of the following types of support would most helpful to you in improving reading comprehension?	Mean	Interpretation
a. More time to read	2.76	Most often
b. Extra help from teacher	2.60	Most often
c. Access to different types of reading materials	2.59	Most often
d. Vocabulary building activities	2.49	Most often

Not at All (1.00-1.75), Often (1.76-2.50), Most often (2.51-3.25), Always (3.36-4.00)

The learners’ expressed preferences offer a clear, actionable blueprint for intervention, with all four types of support desired “Most often.” The top-ranked requests were “More time to read” (M=2.76) and “Extra help from the teacher” (M=2.60). The strong preference for increased reading time supports the principles of Extensive Reading (ER), which emphasizes that sustained engagement and exposure are crucial for enhancing comprehension and fluency (Suryandari et al., 2024). Concurrently, the high value placed on teacher assistance highlights the need for scaffolding, where educators provide the critical guidance necessary for students to navigate challenging texts and build independent skills (Kim et al., 2022). Furthermore, the significant request for “Access to different types of reading materials” (M=2.59) aligns with the Transactional Theory, suggesting that a diverse library is essential for allowing readers to construct deeper, more meaningful connections with texts (Yang & Zhang, 2021). Finally, the desire for “Vocabulary building activities” (M=2.49) confirms that explicit word instruction remains a necessary intervention to improve lexical quality. Therefore, the most effective instructional approach for T-LNHS should holistically integrate dedicated reading time, active teacher-led strategy instruction, and a rich diversity of reading materials to address the critical needs identified by the students themselves.

3.5 Challenges and Difficulties

Table 4.b: The Most Difficult Parts of Reading

What is the most difficult part for you when you read a text?	Percentage	Rank
Understanding the meaning of words	97.12%	1
Recognizing words	89.42%	2
Remembering what I read	88.47%	3
Staying focused	85.55%	4

Table 4.c: Things That Make Reading Difficult

What are some things that make reading difficult for you?	Percentage	Rank
Long sentences	99.03%	1
Unfamiliar words	85.58%	2
Lack of interest in the topic	85.57%	3
Complex ideas	83.65%	4

Perfetti & Helder’s (2022) lexical quality hypothesis supports this, emphasizing that strong vocabulary and word recognition are essential for comprehension. When asked about what specifically makes reading difficult (Table 4.c), students identified long sentences (99.03%) as the top barrier, followed by unfamiliar words (85.58%), lack of interest (85.57%), and complex ideas (83.65%). The

findings on vocabulary and sentence structure align with Bhattacharya et al. (2024), who stress word knowledge as essential for comprehension, and Duke & Cartwright (2021), who suggest that background and word knowledge directly influences understanding. The role of interest in a topic is also supported by Webber et al. (2025) and Merga (2023), who link student motivation to academic outcomes. The results confirm that addressing these specific challenges is critical for improving overall reading proficiency.

4.0 Conclusion

The study confirmed the persistent deficit in reading proficiency among junior high school learners at Tawang-Lusod National High School, with the majority falling into the Instructional and Frustration categories. It was concluded that this challenge was complex, driven primarily by two significant external factors—a limited Home Literacy Environment and low student Motivation—compounded by internal cognitive barriers, particularly in vocabulary and complex sentence processing. This research, by grounding these findings in specific, recent Phil-IRI data and establishing their statistical significance within the unique context of T-LNHS, made an original contribution to the literature by quantifying the localized impact of contextual variables on reading proficiency, thereby providing a data-driven blueprint for targeted intervention in culturally and geographically distinct schools in the Cordillera region. Based on these findings, the following specific and actionable recommendations were offered: Teachers may prioritize Explicit Vocabulary Instruction and the systematic use of Differentiated Instruction to tailor support for struggling readers. The School Administration was urged to institutionalize the “Reading-is-Life” program to foster student motivation and initiate a strong partnership with the PTA to conduct Parent Literacy Seminars, thus addressing the limited Home Literacy Environment. Furthermore, Parents/Guardians were strongly encouraged to commit to allocating at least 15-20 minutes daily for shared reading at home to strengthen the crucial home environment. Finally, Future Researchers were recommended to focus on implementing and evaluating the efficacy of these proposed strategies using an experimental design to measure their direct causal impact on Phil-IRI scores over time.

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Sole Authorship.

6.0 Funding

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7.0 Conflict of Interests

No conflict of interest.

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Investigation on Piano Variations in the 18th Century: Comparison Between Mozart's Variations "Ah, vous dirai-je maman" K.265 and Beethoven's c minor variations Wo.O.80

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ABSTRACT

The variation form is one of the commonly used genres in Western classical piano music. Broadly speaking, in addition to the difficulty of playing technique, the most important thing is the characteristics of its creative composing. Theme & variations is a common variation form. The theme, the main theme, is represented in a different rhythmic pattern in each variation. Using different rhythmic patterns to create a theme requires the player's fundamental practice. This paper focuses on the origin, format, and composition of the variation form, and comparing Mozart's Variations "Ah, vous dirai-je maman" K.265 with Beethoven's c minor Variations Wo.O. 80.

Introduction: Theme and variations was the musical form popularly used in the musical compositions starting from the 17th century. Normally, the theme has no shorter than eight measures and longer than thirty-two measures.^① The elements of the theme are bass, chords, phrase structure, and the melody. The melody has been kept in the variations but being improvised in different rhythmic figures or added in the ornaments.

The background of the theme and variations can be traced back to the Baroque passacaglia and chrole variations.^② "The form arose in the work of C.P.E. Bach and

other mid-18th-century composers. J.S. Bach's Goldberg Variations, not based on an omnipresent theme, do not belong in this tradition."^③ "Haydn made important use of the form for movements in symphonies, quartets and sonatas, and also for independent works — notably his Variations in F minor for piano (1793), exemplifying his favoured variety of 'double variations', alternately on themes in major and minor modes."^④ Mozart's theme and variations was more brilliant. Beethoven's theme and variations, for example the notable piece in c minor Wo. O. 80, had been developed to be the greater work than his predecessors. This research takes Mozart's variations

① Sisman, Elaine. "Variations", New Grove Music Dictionary Online, January, 2001.

② Griffiths, P. "Theme and Variations", The New Penguin Dictionary of Music Online, 1st edition, 2006.

③ Ibid.

④ Ibid.

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K.265 and Beethoven's variations Wo.O. 80 as the comparative works to elaborate theme and variations.

I. Theme and variations as being a musical form

"The theme of a set of variations normally has a fairly straightforward structure, so as to provide a clear, easily memorable frame for the subsequent variations."^① This means, the theme has a solid structure, which is clear enough for the following variations to be composed. The theme provides clear melodic structure, clear rhythmic pattern, clear stimulated time signature, and clear harmonies. Classical music composers were challenged to write theme and variations, especially the longer works such as Bach's Goldberg Variations, Beethoven's Diabelli variations, and Brahms' variations on the theme of Handel.

In general, the special character of theme and variations is that the tempo of the variations change to be faster than the theme, though occasionally with some excepted variations. Also, usually, at the middle variation, the key changed to be the parallel key of the original one. The final variation is usually followed by the slow variation. In most of the theme and variations, the theme can still be audible although have some rhythmic and articulation changes. This research will begin with comparisons between Mozart's variations K.265 and Beethoven's c minor variations Wo.O. 80 to investigate theme and variations.

II. Historical outline of variations

a. The development of variation form

"Variations on a given theme was one of the most widely used compositional techniques in Baroque composition."^② "The basso continuo variations, including chaconne, passacaglia, English ground bass, and Italian follia, is frequently used in the 17th and 18th century."^③

Haydn, Mozart, and Beethoven's variations' compositional techniques have some characters in common. First, they all wrote variations as independent pieces, or used it as the musical movement in symphonies, sonatas, or chamber works. The theme could possibly come from song-like melodies, or operatic arias.

Beethoven's later variations started to deviate from the usual variations. The ambiguous change is that the theme

has been changed to be non-audible in the variations. In other words, the theme never returned to its original one, and the best example is his variations on a waltz by Diabelli op.120 (1823).

Compositional technique of the variations began to serve as the character pieces during the Romantic era. Schumanns Carnivals, Papillions, and Schubert's Wanderer Fantasy, were perfect examples of Romantic character variations. "After Schumann, there was a revival of the classical form ideal combined with Romantic stylistic elements and renewed emphasis on the bass theme, especially in the works of Brahms and Reger."^④

III. Wolfgang Amadeus Mozart 1756-1791

a. Brief biographical introduction

Mozart, born in 1756, Salzburg, Austria, was a child prodigy and began to compose and gave his first public concert at age six. The first touring of performing, he went to as far as France and England. Mozart wrote 21 operas, 41 symphonies, 27 piano concertos, 15 masses, 23 string quartets, 17 piano sonatas, 19 variations, and other works. Mozart's variation "Ah, vous dirai-je maman" K.265 was composed in 1787.

b. Musical Analysis on Variations "Ah, vous dirai-je maman" K.265

Mozart's choices of theme came from different sources. Many of Mozart's variations' theme employ popular melodies of the day, especially minuets and arias from the operas.^⑤ The theme Mozart's variations "Ah, vous dirai-je maman" K.265 was from the French aria.^⑥

There are 24 measures in the theme of Mozart variations K.265. The harmonic progressions of the first eight measures are as follow: I- I⁶-IV-I⁶-V⁶⁵-vi-ii-V-I. The harmonic progressions follow very much from the tradition strictly. The next eight measures' harmonic progressions, are: I-V7-I-V-I-V7-I-V back and forth. Then the first eight measures' melodies returned. The compositional form used rounded-binary form. The theme is still audible in the first variation. However, the theme has been rhythmically changed, but the harmonic progressions remain the same.

The theme re-exists very clearly in the second variation. The melodies are at the top voice, and the melodies started to be tied from measure three with lower tied voice as well. The left hand accompaniment has bass tones,

① Alan Belkin. "Variation Form." In *Musical Composition: Craft and Art*, 91–104. Yale University Press, 2018. <https://doi.org/10.2307/j.ctv2867gb>, p.1

② Linda Dale Kennedy. "Mozart's Keyboard Variations", Master's Thesis, Southeastern Louisiana University, July, 1975, p.5.

③ Ibid, p.5.

④ Ibid, p.8

⑤ Ibid., p.10

⑥ Ibid., p.17

which determines the harmonies of each measure. The theme has been improvised to expose in triple rhythmic format. The quarter notes at the bass line for the left hand defines what the harmonies are. In the aspect of performing difficulty is that there are required trills to be added in the triplet melodies.



Figure 1. Mozart's K.265, theme, Fischer edition.



Figure 2. Mozart K.265, Variation II. Measures 1-6



Figure 3. Mozart K.265, Variation III. Measures 1-6

The theme in variation IV appears at the top voice. The tied notes function very much like the stretto of the fugue. The arpeggio figures in the left hand retrieve the idea from variation III. In the left hand, the first pitch of every measure determines the harmony. The harmonic progressions remain the same as the theme.



Figure 4. Mozart K.265, Variation IV. Measures 1-6

Variation V has interesting rhythmic setting for the theme. The eighth note, in the second half beat, to the quarter note downbeat help build the dynamic level (see figure 5). The left hand part, seen in figure 5, characterize the conversational-like playing to respond the right hand melodies.

The theme in variation VI is still audible but with some changes in the second section (figure 6). Measures 9-16, the basso continuo figures take place in the right hand part. The circle notes in figure 7. are the melodies. The

harmonic progressions remain the same as the theme. In the aspect of performance and practice, the left hand requires careful voicing to bring out the circled melodies.



Figure 5. Mozart K.265, Variation V. Measures 1-8



Figure 6. Mozart K.265, Variation VI. Measures 1-6



Figure 7. Mozart K.265, Variation VI. Measures 9-16

The theme of variation VII has been improvised in different ways: Measures 1-4, the theme has been improvised as the scale passage, and the theme is a part of the harmony starting from measure 5. At the end of variation VII, the fermata is marked because the next variation's key changes. Typically, about the middle variation, the key changes to be the parallel key of the theme.

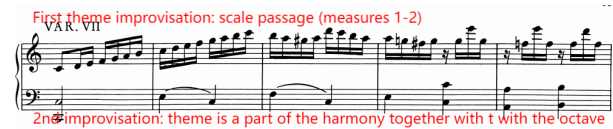


Figure 8. Mozart K.265, Variation VII, measures 1-5

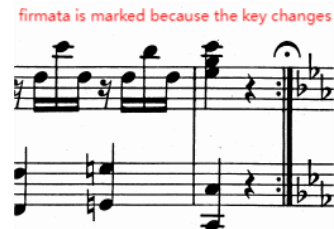


Figure 9. Mozart K.265, Variation VII, measures 23-24

Variation VIII is composed as a fugue and canon. This variation is in c minor, which is the parallel key of the theme. The first subject begins at the alto voice. The mel-

odies continue appearing at the soprano voice. Starting from the third measure, the theme that appears at the tenor voice imitates the theme of the alto voice in measures 1-2. The bass octaves, which take place from measure 13 to measure 17, in terms of auditory effect, bring a sense of solemnity and heaviness. Although it does not have tempo requirement in this variation, most performers would play this variation much more slower in general. (seen in figure 10)



Figure 10. Mozart K.265, Variation VIII.

The theme in Variation IX and variation IV has been idealistically composed in the same way. Anyhow, the accompaniment has been simplified. The setting is to initiate at the new fresh beginning after the minor key variation. Thus, many performers take few seconds' break after the minor key variation, and reboot variation IX just like the theme. The performers normally play variation IX with the gentle touch on the piano (see figure 11). The following Variation X turns the them in a part of harmonies again (see figure 12).



Figure 11. Mozart K.265, Variation IV & Variation IX (comparison)



Figure 12. Mozart K.265, Variation X.

Variation XI is a slow variation with tempo mark adagio. This variation takes imitative compositional writing. The right hand begins with dotted eighth and sixteenth rhythms followed by left hand with the same rhythmic figures starting from the third measure. Then, the final Variation XII is the virtuoso variation in the aspects of tempo (allegro) and other techniques such as rapid moving sixteenth notes for the left hand and the trills in the right hand melodies.



Figure 13. Mozart K.265, Variation XI. Measures 1-7



Figure 14. Mozart K.265, Variation II. Measures 1-3

IV. Ludwig van Beethoven 1757-1827

a. Introduction of Beethoven's Piano Variations

Beethoven's thirty-two theme and variations in c minor Wo.O.80 requires more techniques than Mozart's K.265 theme and variations. The theme of Mozart's K.265 is mostly audible, but Beethoven's Wo.O.80 has been improvised as more complicated figures. "Beethoven applied four of these in his compositions: (1) Constant-harmony variation, (2) Constant-melody variation, (3) Melodic-outline variation, (4) Formal-outline variation. The other three types of variations are found in

three different music period."^① Mozart's K.265 belongs to both melodic-outline variation and formal outline variation. Unlike Beethoven's variations, Mozart's theme has not been changed much in the variations.

According to Grove's dictionary, regarding the Melodic-outline variation "The theme's melody, or at least the 'outline' of its main notes, is recognizable despite figuration, simplification or rhythmic recasting. Types of figuration may be pleonastic (the addition of 'superfluous' notes within the melody or as a countermelody) or periphrastic (the original notes replaced by a more ornate line, though with sufficient resemblance to the original, especially at cadences). Many variation sets of the 18th and 19th cen-

① You-Min Lee. "Pedagogical Approach to Variation Form in Beethoven's Music", Master's Thesis, Northwestern Illinois University, July, 2016, p.6.

turies mix this type with constant-harmony variations.”^① Mozart’s K.265 belongs to this type of variation.

Beethoven’s thirty-two variations in c minor, Wo.O. 80 was composed between 1806-1807. According to the date, when Variation Wo.O.80 was composed, this variation was probably during Beethoven’s middle to late life time period. Different from Mozart’s K.265 variation, Beethoven’s Wo.O.80 variation’s has improvised the theme in the variations thoroughly different from the original. In other words, in some variations, the theme still can be audible, but not in all variations.

b. Music Analysis-Variation in c minor, Wo.O.80

The theme has only eight measures in length. The theme in the following variations are improvised much more differently, but the harmonic progressions basically remain the same. The theme has been improvised to be virtuoso melodies beginning at the first variation . To play piano variation, in general, the tempo setting of the theme must remain the same while playing variations, except the key-changed variation. Therefore, the challenge to play the first variation of this piece is that performers have to remain the tempo at the same time playing constant moving sixteenth notes. Variation II has switched Variation I to be played by different hands. The harmonic progressions remain the same as the theme, but the left hand takes the fast moving sixteenth notes. However, the melodies are in the right hand top voice . Beethoven, as being a genius music composer, has combined the technical passages from Variation I and Variation II to expose as Variation III Performers usually play Variation I to Variation III through without a stop, and then take a few seconds’ pause before playing Variation IV.

The melodies of Variation IV appear alternatively in both clefs . The circled pitches are the melodies. The harmonies are the inner voice together with the bass. The harmonic progression is the same as the theme. Beethoven invented this variation Wo.O.80 to be harmonic-wise consideration. Melodies are being improvised as different patterns, in the aspect of rhythms and different performing techniques.

The resolution cadence of Variation XI falls on the tonic chord in the parallel key in C Major triad . Like the typical theme and variation, the key changes, in about the middle variation, to be the parallel key of the original one from the theme. The Italian term *maggiore* means bigger, larger, greater. Variation XII is a re-existed them but in the key C Major. Beethoven required the performer to play

variations XII, XIII, and XIV all together through. There are several borrowed chords in variation XII.

Interestingly, variation XIII and variation XIV, the melodies exist in the left hand part. The harmonies in variation XIII are composed as being like another beautiful melodies. The compositional technique in variation XIV is in staccato parallel thirds. The melodies exist in the bottom voice of the left-hand thirds.

Variations XV and XVI are being performed together as a set not only because the similarities of being composed as octave figures, but also it is in common that both variations still stay with the parallel key in C Major. Unlike what mostly the octaves are being played in powerful dynamic, both variations XV and XVI require soft dynamic. The idea of the improvised octave melodies in variation XVI probably came from variation XV. Variation XVI functioned to be an extension of variation XV.

Variation XVII uses contrapuntal composition technique. There are 5 voices imitating throughout the variation. The subject begins at the second voice marked as number 1., and the subject has borrowed the theme. The compositional idea uses the scale pattern to extend the harmonies. Each scale pattern is not only the extension of the harmony but also the the improvisation.

Omitting variation XIX, the melody-harmony mixed variation, variations XX and XXI improvised the melodies in triplet rhythms. The harmonies are in syncopated rhythms. Then, variation XXII are all composed in octaves. Variation XXIII is back to the harmonic progressions’ composition followed by variation XXIV with through staccato playing.

The melodies are hidden in the right hand sixteenth notes’ figures in variation XXV. Variations XXVI and XXVII are written in the idea of extended harmonies in parallel thirds . Variation XXVIII has an apparent single melodies and alberti bass harmonies followed by rapid triplets for both hands in variation XXIX.

Variation XXX is formed to be continuous harmonic progressions. Variation XXXI has a clear theme in the right hand part being formed as octaves mostly. Variation XXXI requires soft touch playing, and the final measure is a connection to the final variation. The left hand part has been kept to flow softly at the same time the theme in the right hand has been audible. The final variation combines all the compositional techniques of all the variations such as triplet rhythms, octaves, voicing, and melody-harmony mixed.

V. Comparison between Mozart’s K.265 and Beethoven’s Wo.O.80

Mozart’s variation K.265 basically has clear and audi-

^① George Grove, *The New Grove Dictionary of Music and Musicians* (Oxford University Press, 1879), 939- 940.

ble theme from theme to the rest of the variations. Beethoven's c minor variation Wo.O.80 had more harmonic ideas to make the theme involved. The performance and practice-wise, Beethoven's variation demand more solid fundamental techniques. However, it is not being said that Mozart's K.265 does not require demanding techniques, but Mozart's K.265 has a more unique theme throughout the entire theme and variations. Beethoven extended the middle key-changed variations longer than Mozart not only in consideration of the length but also to authorize himself to improvise more, before changing back to the original key in c minor. Overall, Mozart's variation K.265 is more standard. In comparison to Mozart's K.265, Beethoven's variation Wo.O.80 has a lot of improvisations and harmonic progression arrangements.

VI. Conclusion

Theme and variations, as a musical form, is an improvised composition. Theme and variations begin with the short theme, which has eight to thirty-two measure in length. Theme and variations can be traced back as early as Baroque era, for example: passacaglia, chorale variations, or J.S. Bach's Goldberg variations. The theme has clear and memorable melody. However, composers improvised the theme melodies differently. For instance, Mozart's idea of improvising the theme in the variations was to compose the theme in different rhythms in his K.265. However, the theme is basically all audible as the same as it is in the variations. Fairly, the theme melody has not been changed much in Mozart's K.265. Different from Mozart's variation K.265, Beethoven bravely improvise the theme in variations in another way. First, Beethoven improvise the theme in by engaging it as a part of the harmonies. The harmonic progressions remain the same in Beethoven's Wo.O.80. The fundamental techniques of Beethoven's Wo.O.80 are required more than Mozart's K.265. Beethoven's idea of improvising the theme in his variations was to extend the harmonies in different patterns such as scale passages, triplet rhythms, and irregular rhythms (for example: seven against four) in the final var-

iation. Johannes Brahms followed very much of Beethoven's idea of composing theme and variations, for instance Brahms's theme and variations on the theme of Handel. Overall, the goal of this research was to investigate the development of theme and variations by taking Mozart's K.265 and Beethoven's Wo.O. 80 as the examples.

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A Study on Teacher Workload Under Basic Education Reform: Investigation, Analysis, and Mitigation Strategies

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ABSTRACT

Basic education is the cornerstone of the healthy development of China's educational enterprise. Against the backdrop of increasing demands for teachers' comprehensive competencies, issues such as excessive work intensity, heavy burdens, and a surge in work pressure have become increasingly apparent. Consequently, alleviating the burden on teachers has emerged as a critical issue that urgently needs to be addressed in the pursuit of high-quality development in China's education system. Through interviews and questionnaire surveys with a sample of teachers, this study processes, analyzes, and compares the collected raw data. Adopting a teacher-centered approach, it dissects the current state of teacher workload. Furthermore, based on three dimensions—clarification of responsibilities, professional perception, and management systems—the paper proposes targeted recommendations for burden reduction. The study aims to mobilize the collective strength of society, empowering teachers to become the lifelong gatekeepers and beneficiaries of their own well-being.

1 Background

Basic education is a national quality-oriented education for all students, with the fundamental purpose of improving the basic quality of the citizenry and laying a solid foundation for all school-age children and adolescents to engage in lifelong learning and participate in social life.^[1] The implementation of the “Double Reduction” policy has led to more stringent demands from parents, which in turn compels teachers to enhance their capabilities, consequently shifting the pressure onto basic education teachers. This pressure shift is mainly manifested in the following two aspects.

1.1 The Alienation of Primary and Secondary School Teachers' Workload

Fostering virtue and nurturing people is the primary duty and important mission of teachers. Teachers require a reasonable workload to dedicate their time and energy to their primary task of teaching and educating. Today, however, primary and secondary school teachers are generally busy, bewildered, and aimless, overburdened with excessive and miscellaneous tasks, while their time and energy are heavily consumed by excessive training. The excessive workload of teachers is an objective fact.^[1] In recent years, the issue of excessive teacher workload has been widely discussed in society. The multiple forms of

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alienation in their workload add to their negative stress, affecting their physical and mental health and constraining the development of basic education.

1.2 Reform in Basic Education

Since the founding of the People’s Republic of China, the Party and the government have always placed great importance on educational development, and efforts to reduce student burden and reform basic education have been continuously advanced. However, China’s basic education is still predominantly “exam-oriented.” Educational reform is therefore imperative. This reform-minded thinking includes: transforming educational concepts, improving educational mechanisms, and establishing a modern view of teaching. The modern view of teaching emphasizes that teaching is a highly professional activity requiring highly professional practitioners, and it also points out that teachers should utilize all available resources and means for instruction. The modern view of teachers emphasizes that they should be professional practitioners who are self-disciplined, self-motivated, and capable of autonomous development.^[2] Consequently, teachers must expend more energy to improve their own capabilities to adapt to the broader environment of educational reform. Meanwhile, the internal governance systems within primary and secondary schools are continuously being improved.

The quality of teachers’ work is intrinsically linked to their physical and psychological stress. To understand the specific work burdens of primary and secondary school teachers, the implementation status of national burden reduction policies, and the progress of basic education

reform, and to identify problems and propose reasonable recommendations, we have conducted a survey on “The Current State of Teacher Burden in the Context of Basic Education” among primary and secondary school teachers.

2 Data Processing

This questionnaire survey and interviews involved primary and secondary school teachers and students from multiple regions. The sample consisted of 32% teachers and 68% students. Among the teachers, 32.5% were front-line teachers in junior and senior high schools, 25% were primary school teachers, and 9.38% were non-teaching staff. The effective response rate was 100%. The reliability and validity analysis, as shown in Table 1, yielded a Cronbach’s alpha value of 0.795, indicating the high reliability of the questionnaire. The KMO values for the three aspects were all greater than 0.6, and the significance levels of Bartlett’s test of sphericity were all less than 0.05, making the data suitable for factor analysis. The cumulative total variance explained by the factors generally reached over 70%, demonstrating the high validity of the questionnaire. As the respondents were from across the country, the broad consideration of regional differences contributes to the scientific validity and rationality of the findings. The survey content primarily focused on teacher workload, teacher training, and educational reform. SPSS and Excel were used to analyze and compare the data from the valid questionnaires, and the findings were integrated with interview outcomes and relevant knowledge to explore the research theme.

Table 1 Validity Analysis of Teacher Workload, Teacher Training, and Educational Reform

Validity Analysis	KMO and Bartlett’s Test		
	Teacher Workload	Teacher Training	Educational Reform
KMO Measure of Sampling Adequacy	0.723	0.701	0.776
Approx. Chi-Square	259.777	612.580	254.862
Bartlett’s Test of Sphericity	df	105	120
	Sig.	.000	.000

Satisfaction Analysis: Job satisfaction is a concept in psychology and management studies. It refers to a teacher’s overall, affect-laden perception and evaluation of their job, profession, and working conditions.^[3] It can be categorized by individual background factors, individual psychological factors, and organizational and environmental factors. Key variables include educational stage, school management, interpersonal relationships, work stress, working hours, and workload.^[4] This study select-

ed the typical factors of working hours and workload for investigation. The results show that 68.76% of teachers work more than 8 hours per day on average, while only 17.19% expressed satisfaction with their working hours and workload. The SPSS analysis revealed that teachers perceive severe sources of stress to be from superiors and their own psychological pressure, with the primary reasons being the deepening of basic education reform and high demands from superiors.

Table 2 Statistics on Teacher Satisfaction with Working Hours at Different Educational Stages

Teacher Type	Satisfaction with Working Hours				Total
	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	
Teachers in Graduating Grades (9 & 12)	0.0%	62.5%	21.4%,	0.0%	27.6%
Teachers in Non-Graduating Junior & Senior High Grades (7, 8, 10, 11)	0.0%	12.5%	57.1%	33.3%,	37.9%
Primary School Teachers	100.0%	25.0%	14.3%	33.3%,	24.1%
Non-teaching Staff	0.0%	0.0%	7.1%	33.3%	10.3%

Table 3 Statistics on Teacher Satisfaction with Workload at Different Educational Stages

Teacher Type	Workload Satisfaction				Total
	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	
Teachers in Graduating Grades (9 & 12)	25.0%	40.0%	33.3%	0.0%	27.6%
Teachers in Non-Graduating Junior & Senior High Grades (7, 8, 10, 11)	0.0%	60.0%	40.0%	40.0%	37.9%
Primary School Teachers	75.0%	0.0%	13.3%	40.0%,	24.1%
Non-teaching Staff	0.0%	0.0%	13.3%	20.0%	10.3%

Figure 1 Distribution and Severity of Teacher Stress

The increasing burden on teachers is closely related to the problems within China’s primary and secondary school educational administrative management system. According to the survey results, 93.1% of respondents believe that the current system excessively interferes with the autonomy of schools; 65.5% believe the management system is inflexible, lacks innovation, and that the administrative personnel are not sufficiently professionalized; and 44.8% believe that an effective oversight mechanism for the administrative system needs to be improved. Under the basic education reform, multimedia teaching has become essentially universal, but laboratory facilities still require improvement. It is evident that the trend in teachers’ expectations for the focus of school development is as follows: student mental health > societal demand for certain subjects > student academic performance > student interests > moral education > competency development. Teachers expect schools to strive for balanced development while prioritizing the identification and resolution of students’ psychological problems.

3 Analysis of Teacher Burden in the Basic Education Survey

3.1 Current State of Teacher Burden

Through interviews, it was found that the current sources of teacher pressure mainly fall into four aspects:

First, the burden from students’ parents is the most significant. Excessive focus on grades and rankings leads to immense pressure being exerted on teachers by students and parents. According to the interview results with teach-

ers at various educational stages, this pressure can be categorized into three areas: student academic performance, student management, and the degree of parental attention. Parents are overly reliant on schools and teachers.

Second, pressure from school administration cannot be ignored. There is an excess of non-essential tasks, such as inspections from superiors and numerous meetings. Excessively high teaching metrics have become a major source of pressure. Excessive pressure from both home and school regarding academic performance causes teachers’ instructional energy to be diffused, affecting the quality of teaching.

Third, demands at the societal level are increasing year by year. Some segments of the public hold a stereotypical perception of the teacher’s image, and their stringent requirements regarding teachers’ appearance and conduct cause distress.

Fourth, teachers have stringent self-imposed demands. Teachers need to continuously improve their professional level and strictly constrain their daily behavior; working hours encroach upon and squeeze personal life, severely impinging upon their personal and family time.

In summary, teachers often bear a heavy burden as they actively or passively seek to balance these competing demands. The expectation that teachers should still deliver high-quality instruction under high pressure warrants deeper reflection.

3.2 Perception of Basic Education Reform and New Sources of Pressure

In the context of educational reform, curriculum integration has become a key direction. There are growing

teaching requirements such as interdisciplinary teaching, textbook reform, knowledge expansion, and the cultivation of comprehensive competencies. Innovations in classroom teaching models, sharing of high-quality online courses, new instructional methods, and the Gaokao (college entrance exam) reform have become tasks that teachers face in the context of reform, posing challenges for both teachers and students. In response to the Gaokao reform, as the fixed exam subjects shift to models like “3+3” or “3+1+2,” the issue of subject selection for students, starting from the first year of high school, has emerged. Since students lack a scientific understanding of career planning, teachers must also shoulder the heavy responsibility of guiding students and parents in making correct subject choices.

4 Recommendations for Alleviating the Burden on Primary and Secondary School Teachers

The primary role of teachers is to teach and nurture students. Long-term high pressure adds to their mental and psychological stress and reduces their motivation. Solving the problem of excessive teacher burden is urgent. To this end, we propose the following targeted recommendations from three dimensions: clarification of responsibilities, professional perception, and management systems.

4.1 Dedicated Personnel for Specific Roles

Based on the interview and questionnaire results, implementing a system of dedicated personnel for specific roles can effectively address the issue of role ambiguity among teachers. A more rational and clear work structure ensures that non-instructional affairs are properly handled, a more rational evaluation system for teacher development is established, and the demand for skills unrelated to teaching and nurturing is reduced. Schools should reasonably delineate the boundaries of teachers’ instructional duties and simplify unrelated tasks. Achieving dedicated personnel for specific roles and clarifying teachers’ primary responsibilities will be a goal for considerable time in the future.

4.2 Guiding a Correct Public Understanding of the Teaching Profession

The methods for evaluating teachers’ teaching should be changed. More tactful approaches should be adopted to create a buffer zone among the school, teachers, parents, and students—for instance, ordering by performance instead of ranking, and implementing suitable measures based on actual situations. At the same time, students and parents should be guided to value comprehensive

competencies, alleviating parents’ psychological anxiety over scores and reducing the teaching pressure from schools and families. As times change, teaching styles are no longer monolithic. To address this, it is recommended that schools adopt more flexible regulations regarding the professional image of teachers, allowing the expression of their unique individuality, in addition to their professional commonalities. This helps them find their own correct understanding and positioning in their professional practice. In summary, changing the stereotypical perception of teachers held by the public requires a concerted effort from all levels and sectors of society.

4.3 Establishing a Sound and Mature Educational Management System

Regarding teacher training, organizers should strive to improve its quality by focusing on multiple links, including curriculum, teaching materials, pedagogy, and the teachers themselves.^[1] It is recommended to improve the incentive and evaluation mechanisms for teacher training and to develop a more scientific and standardized evaluation standard system, such as establishing an interactive system involving multiple stakeholders to scientifically evaluate the effectiveness of training through diverse evaluation objectives, varied assessment methods, and specialized evaluation tools. It is recommended to increase multi-stakeholder investment in teacher training for rural areas. Drawing on policies for attracting excellent teachers, we can attract outstanding educators to work in inland regions, innovating teacher allocation mechanisms to alleviate the shortage of teachers in certain subjects and areas; establishing orderly, high-quality teacher training and increasing opportunities for rural teachers to receive training will make tangible contributions to the development of inland education and further promote equitable educational development.

5 Conclusion and Outlook

With the development of basic education reform, the issue of teacher burden urgently needs to be addressed. Based on these objective social phenomena, we have found that the multifaceted pressures teachers face disrupt their own work rhythm, preventing them from delivering high-quality instruction. In the wave of educational reform, teachers are both implementers and subjects of reform. This not only disadvantages their own development and the education of their students but also becomes an obstacle on the path of reform. Confronting the problems teachers face and alleviating their excessive pressure is an inevitable part of the educational reform process. This

requires understanding from society, a rational division of labor within schools, and active cooperation from families. Facing the comprehensiveness and complexity of educational reform, it is necessary to integrate the different roles and perspectives in society and coordinate them with supportive government measures.

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Digital Transformation in Chinese Language Instruction: Emerging Strategies for University-Level Teaching

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ABSTRACT

This article explores the digital transformation of Chinese language instruction at the university level, examining emerging technologies and their impact on teaching and learning. The combination of Artificial Intelligence, Virtual Reality, Learning Management Systems, gamification, has paved the way to new opportunities for personalizing education, making it more accessible and engaging for students in learning Chinese language. Through in-depth discussions of case studies from prominent universities: Peking University, National University of Singapore, University of British Columbia and Tsinghua University this study raises the spotlight on successful strategies and frameworks for the incorporation of digital tools in language programs. The article recommends a structured framework for universities to adapt and deploy digital transformation programs with an emphasis on pedagogical redesign, infrastructure development and instructor training. It also covers the benefits, issues and future research directions, with a focus on the need to consider technological inequality, artificial intelligence dependence and ethical issues. Its results highlight the possibilities of digital tools to revolutionize the process of teaching the Chinese language and can serve as a guideline to institutes that want to introduce new trends in this area.

1. Introduction

Digital revolution has intensely influenced most aspects of higher learning and the sector of teaching a language is not an exception. With adoption of new technologies in the universities of the world, they are using the digital tools to become more effective in their teaching, enhance the engagement and satisfy the changes in the needs of the learners. This change is of specific importance in the context of Chinese language education, given the complexity of the task of learning Chinese, which is a language with a peculiar system of writing, tonal pronunciation, and profound cultural subtleties included. Digital technologies, i.e.

Artificial Intelligence (AI), Virtual Reality (VR), Learning Management Systems (LMS), and digital corpora do offer new solutions to these issues as they can be scaled, diverse, and interactive. The fact remains that even though these technologies have been gaining momentum in their use, a gap in research in the area of effective implementation of the digital strategies in teaching the Chinese language to students on university level is still considerable^[1-4].

The possibilities of digital revolution of Chinese language teaching (CLT) are enormous. Traditionally, language acquisition has always been based on conventional and teacher-centered methods, where the emphasis is on the case of rote memorization, repetition and passive

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learning. Although these approaches have been successful in some settings, they need to be less involving and ineffective to the needs of the modern learner. Digital tools present an opportunity of more dynamic, costly, and personalized learning spaces. The students are able to get instant feedback about their writing and pronunciation with the help of the AI-driven apps, whereas the VR realities make them engage in a more genuine manner of talking, thus, practicing language more directly. Digital corpora allow students to work with a huge range of valid texts, which allows them to be exposed to the actual language use and understand the language structures as well as usage and cultural background. The areas of Chinese language teaching that these innovations are able to deal with include the issue of acquiring Chinese characters, learning to use tonal intonation and acquiring communication competence^[5, 6].

Nonetheless, as the technology world rapidly changes, study of how they are being incorporated in the Chinese language learning is still worn out. Numerous research papers on digital transformation in language teaching are based on surveys or self-reports of learners or anecdotal data. Although these approaches can be of great help as long as they offer important insights, they are not very deep in terms of theoretical basis and real-life examples. The urgent necessity is the study that extends beyond the self-reported experiences to present a more detailed examination of the new digital strategies with the support of the registered case studies and pedagogical theory. The article aimed to address this gap by providing a systematic analysis of the way in which digital technologies are transforming CLT at the university level, relying both on theoretical explanations and real-life institutional processes^[7-9].

This study aims to accomplish three things. First, it is intended to find and interpret the emerging digital strategies which are already forming the Chinese language teaching in higher education. These are AI-based writing and pronunciation aids, VR immersive language learning systems, gamification, and LMS-based hybrid system models. Second, the paper focuses on success case studies of top institutions, including Peking, the national university of Singapore and the University of British Columbia to make known how these strategies have been put in practice. Third, the article offers a systematic framework to be followed to make universities successfully accept and scale the use of digital tools in the Chinese language programs to make the introduction of the digital transformation sustainable and pedagogically justified^[10, 11].

This research is valuable because it was able to interweave the pedagogical, technological, and institutional lenses to enable a comprehensive profile of the digital

change in the context of Chinese language education. In contrast to the majority of the studies which refer to learner surveys or even qualitative reports, the research is based on the case studies and the academic frames that allow developing a strong background of the problem of how the digital tools can be implemented strategically into the language teaching. The article provides a in the form of a research-supported roadmap to help universities better cope with the challenges of digital transformation, as new technologies should be employed not simply to be innovative, but they must do so in ways that online learners will achieve more positive learning outcomes and gain independence^[12, 13].

Although there are numerous advantages to the combination of digital tools such as the possibility of individualized learning processes, improved student-teacher interactions, and broader availability of authentic resources, the challenges are also present. Technological inequality problems, different degrees of digital literacy in educational workers, and the threat of the overuse of technology are also essential obstacles on the way to successful implementation. Also, the moral aspect of AI usage can be addressed with particular attention to such spheres as data security and generated content by AI, which can be viewed as a number of ethical concerns. This work does not just focus on the benefits of the process of digital transformation only, but also critically evaluates these issues and provides valid solutions to face them^[14-16].

The article provides an in-depth discussion of how digital transformation can be used in teaching Chinese language at the university level. Through analyzing the developing digital strategies, writing case studies where the use of digital technologies has been successful and providing a clear implementation model to the readers, the study shapes the body of knowledge on applying digital technologies to improve the teaching of the Chinese language. This is aimed at providing the universities with the tools and knowledge to navigate through the changing digital environment to make sure that the teaching and learning of Chinese language is still applicable, effective and readily available in the digital era.

2. Theoretical Framework

The introduction of digital technologies in Chinese language teaching is not a simple issue of using new technology but entails a serious change in the pirogue. In order to maximize on the potential of digital tools to improve the teaching and learning of Chinese, it is necessary to ensure that the application of the digital tools is pegged on properly laid theoretical grounds. In this section, the theoretical background of the digital transformation of

Chinese language teaching is explored in relation to the development of instructional frameworks, the factors most involved in the digital transformation, as well as the opportunities and challenges that the educators have. We also discuss pedagogical and technological models that help to provide a systematic basis of learning how digital tools can be incorporated into language teaching to ensure learning maximization^[7, 17].

2.1 Context of Digital Transformation in Chinese Language Teaching

2.1.1 Evolution of Instructional Models

The teaching of Chinese language as is the case with most other courses, has undergone some drastic changes in the manner of teaching, mostly due to technological changes. Traditionally, the lecture-based model of teaching language has been initially dominant in the teaching of the Chinese language and focuses on the teacher delivering instruction and the students taking notes. Though efficient in the presentation of content, this method is likely to restrict interactive, practical learning especially on complex language such as Chinese that have characters.

As multimedia technologies spread out in the late 20th century, the teaching techniques started to acquire a more dynamic nature in the form of audio-visual materials, interactive computer software and online tools, making the process of language teaching more of a multimodal experience. Video recordings and CD-ROMs and early computer-assisted learning tools, used in the 1990s and the 2000s, helped in the interaction of learning and were in most cases added to the standard classroom model^[18-20].

The most radical change in the field of language teaching was the emergence of the digital environment and hybridism of learning, which became more common in CLT in the post-2020 period. The adoption of online LMS, the standardization of the virtual classroom and the incorporation of AI technologies into the education process have radically changed the learning process. The advances have facilitated the ability of providing more flexible, interactive, and personalized learning opportunities to the students. The in-person and online model are referred to as the hybrid model because it enables the learners to access material, engage in activities as well as receive feedback in a manner never before imagined. The change is more crucial to the learners of Chinese language who encounter special issues, including the need to master thousands of characters, tones, and complex grammatical structures. Flexible and individualized teaching technology can be effectively offered using digital technologies to meet the individual requirements and speed of the Chinese language

instruction process to suit the needs of the learner^[18, 21, 22].

2.1.2 Key Drivers of Digital Transformation

The use of digital technologies in the learning of Chinese language can be explained by the complex of technological, pedagogical, and institutional reasons. All these drivers will play a critical role in understanding how the transition towards the CLT digital transformation can be framed.

Artificial Intelligence, Cloud computing, big data analytics, and speech recognition have very powerful technological innovations that have led to improved efficiency of digital learning tools. As an example, the AI-based applications have come to provide real-time feedback on pronunciation, writing, and grammar as well as high-tech algorithms that orchestrate the learning process depending on the needs of individual students. Such technologies are particularly useful with such languages as Chinese, where it is particularly difficult to master pronunciation (tones) and writing (characters) and improve on its status through constant feedback. Moreover, multimedia content including videos, simulations, and interactive activities can be easily integrated into learning with the help of the advanced technology of digital platforms that contribute greatly to student engagement and retention^[23, 24].

The need of speaking Chinese has increased across the globe as the impact of China in the world keeps rising. It has been reported that millions of students worldwide are currently studying Chinese and this calls on universities to increase their language courses, as well as changing models of teaching that are already scaled and flexible. With the assistance of digital tools, educational establishments can fulfill this increased demand by providing students with high quality and language education wherever they are geographically located. The Internet, virtual classrooms, and artificial intelligence-based generators have made the Chinese language material available to reduce the restriction of face-to-face classes^[25, 26].

The move to learner-centered and task-based pedagogies has been an influential factor that has brought about digital communication tools integration in language instruction. In traditional methods, the teacher is usually the key player, imparting knowledge by means of direct teaching. Modern teaching methods, such as the Task-Based Language Teaching (TBLT) and the Communicative Language Teaching, focus on the freedom of choice, communication, and focus on real-life practices. Online technologies facilitate such approaches by offering interactive means with which the students could interact with the language in real-life, genuine contexts. As an illustration, AI systems provide real-time feedback on writing

(instead of waiting to submit their assignments to agree or disagree with the marked papers), whereas VR technology recreates the virtual communication within a realistic setting of the real world, letting the students be immersed into using the language in practice^[27-29].

Colleges and universities are being pressurized to become, and more flexible in their education provisions. COVID-19 pandemic necessity stimulated the widespread use of digital technologies in the field of language education. With the increasing demand on the remote learning systems and open, easy-accessibility in learning paths, most universities are obtaining LMS systems as well as virtual classrooms and other online learning opportunities into their teaching frameworks. Besides, higher education institutions also struggle with issues of delivering equality in high-quality education accessibility, particularly to international students or those in remote locations, and as such, digital transformation becomes a critical element of the modernization policy^[30, 31].

2.1.3 Challenges and Barriers

The digital use has great potential; there are still a number of challenges that undermine a smooth adoption of the technology in the teaching of the Chinese language. Other than the particularities of the language used in the instruction, the language itself is one of the greatest challenges of the study of the Chinese language. Chinese is a character-based language and it has thousands of distinctive characters which entail much memorization and practice. Moreover, Chinese is tonal and thus makes it very hard to pronounce words even to a non-native speaker. Though digital solutions to these issues have seen progress (including using AI to identify characters and tone, as well as correct them), the entire complexity of the language cannot be perfectly translated into a pure digital setting, and it continues to pose a challenge to the learners.

Digital literacy among the instructors is another major challenge that is likely to arise. Older, more technologically advanced teachers would have an easy time adopting new technologies, but several experienced teachers feel either they are not acquainted with the new tools, or they are unwilling to implement them in their classroom teaching. This leaves a hole in good utilization of digital resources and the technology will not be fully utilized in the classroom. Besides, poor training and professional development of technology integration may also lead to further deterrent of instructors utilizing digital tools to their benefit^[32].

The other limitation is technological infrastructure, particularly to institutions that are located in the developing world or those that are smaller in size. Whereas, certain

institutions are able to invest in innovative technologies, others might not have access to quality internet, digital platforms, or the use of the right equipment. Unequal distribution of technology may result in that unequal access to the high-quality digital language learning experiences may be established, which limits the effectiveness of digital transformation in some settings.

Technology can also be over-relied upon without having to be based on proper pedagogical principles. Certain digital aids might target rote memorization (e.g. rote vocabulary or a language-based game) or superficial skill acquisition (not necessarily based on communicative competence), but not deep cultural literacy. An important aspect of the matter is that digital devices must be incorporated in the pedagogical approach that does not aim at providing the language to a student, but they must be used in such a way that facilitates, and not replaces the study process preferably^[33].

2.2 Pedagogical and Technological Foundations

In order to make the incorporation of digital tools in the teaching of Chinese language successful, it is imperative to base their application on the already developed pedagogical and technological models. They will help to implement technology in teaching with some form of organization, so that ineffective teaching methods are not displaced by computer-based technology, but instead, computer-based technology improves effective teaching activities.

2.2.1 Pedagogical Models Informing Digital Integration

There are also a number of pedagogical frameworks that can be useful in adopting the concept of way digital tools become involved in language learning, each taking focus on various facets of learning that can be facilitated by digital tools; Communicative Language Teaching, TLBT, Constructivism and Cognitive Load Theory.

The approach that has been greatly embraced is the Communicative Language Teaching as it is based on communication and practical use of language. In the era of the digital world, the Communicative Language Teaching can be supplemented with digital interactive tools that emulate viewpoint in the real world. People can train AI to give them feedback on the correct pronunciation in real-time, which then lets them talk and correct them instantly. Virtual and augmented reality worlds can also be useful in Communicative Language Teaching because they allow students to be placed in realistic language situations, like how to place an order in a restaurant or socialize in a Chinese environment^[18, 24].

The Task-Based Language Teaching emphasizes the

accomplishment of significant activities as the central aspect of language acquisition. Digital technology is useful in TBLT to allow students to perform real activities, which involve the active use of language. As an example, students may write and post online digital stories, take an online discussion, or play an online role-play game. The tools positively offer students a chance of learning their language in the real world and hence better command their language in realistic situations.

Constructivism is founded on the notion that learners actively construct knowledge by contextualizing and interacting with the environment and working on problems; hence, it suits the application of the digital tools. Such devices as corpus-based learning platforms enable students to learn using language data, revealing trends and making associations that aid in a better comprehension and memory. Through the engagement with real language materials, the students will engage in active knowledge construction thereby improving on their learning experience^[34, 35].

Cognitive Load Theory implies that learning is the best when cognitive resources do not get overloaded. Digital tools such as spaced repetition system and interactive visual aids should be used to decrease cognitive load in Chinese language learning where there is high processing difficulty in both visual and auditory modes. Such tools break complex tasks, like learning characters, learning tones, etc., into easy steps and involve a continuous reinforcement, assisting students to memorize more effectively.

2.2.2 Technology Integration Frameworks

A number of models provide systematic methods of technology integration into learning, to help educators to choose and use digital tools based on pedagogical objectives and content requirements:

The Technological Pedagogical Content Knowledge (TPACK) model highlights the importance of striking a balance between technological, pedagogical, and content knowledge in the integration of the digital tools in teaching. This, in relation to teaching Chinese language, implies adopting technologies that would not only facilitate in delivery of the content but also the practical teaching depending on the concept of effective teaching. As an illustration of what AI writing assistants shouldn't do, they are not only expected to fix grammatical mistakes that learners do but they should also provide the learners with more language complexities that need more complicated sentence constructions in order to improve their language skills^[36, 37].

The SAMR model of technology use (Substitution, Augmentation, Modification and Redefinitions) assists educators to assess the effectiveness of technology use in

learning by classifying technology use into 4 categories, the level of Substitution, Augmentation, Modification and Redefinitions. Digital tools in Chinese language teaching may start with replacing the old practices (such as learning vocabulary on digital flashcards) and supportively develop to transform the learning experience (such as the language immersion environment powered by AI). This model makes teachers think about the ways they can go beyond mere use of technology and to design learning experiences that are transformative and innovating^[38].

The Digital Taxonomy of Bloom provides a structure in which one can design tasks based on the increasing level of complexity when it comes to cognitive skills, such as recalling and creating/developing. Using digital-based activities in the teaching of the Chinese language, the educators are able to arrange tasks that have a progressive development of complexity. As an example, students may start with the use of digital apps recalling the vocabulary and then proceed to the creation of original work, e.g. digital essays or multimedia works, as the means of showing a command of the language skills^[39].

The theoretical frameworks presented in this section provides a detailed basis to the understanding of integration of digital tools in teaching of Chinese language. When reflecting on the transformation of the models of instruction, the forces of digital transformation change, and the principles of pedagogy according to which the use of technologies is organized, the educators will be able to create more effective, engaging, and scaled language learning environments. The secret to effective digital transformation is to ensure that technology is paralleled with sound pedagogical theory so that digital tools facilitate an otherwise effective process of teaching rather than to displace it. These theoretical perspectives will form the basis of the next section of this research wherein I will discuss the new forms of digital approaches in Chinese language teaching^[40, 41].

3. Emerging Digital Strategies in University-Level Chinese Language Instruction

The adoption of digital technologies in CLT has brought some innovative approaches that are transforming the manner, in which language is taught and learned at the university level. The summarized table 1 outlines the major digital tools presented and how they are actually applied in the teaching of the Chinese language. These plans tap into the opportunities of the diverse digital resources to overcome the specific difficulties related to the instruction of Chinese language, including the ability to master the writing system, learn tonal pronunciation, and gain communicative competence. The main areas examined in

this section include AI-assisted digital strategies in Chinese language teaching and learning and the existing technologies of VR and Augmented Reality (AR), the gamifi-

cation concept, the hybrid instruction centred around the LMS, and utilization of both corpora and authentic online materials ^[2, 8, 42, 43].

Table 1: Digital Tools and Their Applications in Chinese Language Instruction

Technology	Tool/Platform	Function/Use	Relevant Language Skill
Artificial Intelligence	WenXin, WriteWise	AI-assisted writing feedback (grammar, coherence, structure)	Writing (Composition)
Speech Recognition	iFlytek, Google Dialogflow	Real-time pronunciation feedback, tone correction	Speaking (Pronunciation)
Virtual Reality (VR)	Custom VR environments	Simulated conversational practice in real-life scenarios	Speaking (Conversational Fluency)
Gamification	Quizlet, HSK Online	Interactive vocabulary games, spaced repetition	Vocabulary Acquisition, Retention
Learning Management Systems (LMS)	Moodle, XuetangX	Centralized platform for course content, assignments, and discussions	All Language Skills (Integrated)
Corpora	BCC Corpus, Lancaster Corpus	Authentic text resources for reading and writing analysis	Reading, Writing (Vocabulary, Grammar)

3.1 AI-Assisted Learning Tools

The issue of AI has been one of the most revolutionary innovations into the arena of learning, especially language learning. The AI tools used in teaching Chinese language are meant to provide real-time feedback on the important aspects like pronunciation, writing, and grammar giving a personalized response. The degree of interactivity and accuracy that these tools provide cannot be equated with other traditional methods. Social media systems such as WenXin and WriteWise use natural language processing (NLP) and machine learning algorithms to check and assess the writing of students, as well as offer comprehensive feedback. Not only are grammar and syntax mistakes identified using these AI systems, they provide contextual ideas that improve coherence and structural correctness. The tools are particularly useful to the Chinese language learners to provide feedbacks on the intricacies of Chinese characters and writing styles where conventional ways of providing feedback usually fail. AI systems are able to evaluate stroke order, character composition, and grammatical patterns and provide immediate and correct feedback to students to allow them to improve faster ^[44, 45].

Pronunciation is one of the main problems with the language learners of tonal languages such as Chinese. Speech recognition software like iFlytek and Google Dialogflow will also give real-time pronunciation feedback (especially tonal fidelity), which is a key to articulate speech in Chinese. These tools employ both sophisticated algorithm in assessing the pronunciation of learners and in providing instant corrections enabling learners to practice their speech and get an instant correction even without the supervision of the teacher. This improves self-directed

learning where learners can engage in pronunciation as much as required until they become proficient ^[46].

The adaptive learning systems offered by Linguist and Duolingo are custom built to tailor the lesson to an individual learner by examining their performance and modifying future lessons based on that. Adaptive systems applied in teaching Chinese language can be directed to particular aspects a learner may be at a loss in e.g. recognizing characters or learning vocabulary. This individualistic technique enables learners to move at their own speed making sure that the students get the necessary help to meet the challenges on the way of realizing their learning objectives. They are transforming teaching Chinese using AI-assisted tools that enable one to offer personalized and scalable feedback in real-time to establish an efficient and customized learning operation ^[47-49].

3.2 VR and AR Technologies

Automated reality VR and AR are the innovative technologies which start gaining considerable importance in CLT providing the opportunity to get immersive learning experiences which are impossible in a conventional classroom.

The Virtual Reality has been very effective in teaching languages through offering an immersive environment where people can have realistic discussions in the comfort of their classrooms. VR applications can be used in learning the Chinese language to re-create real life scenarios, e.g. one would order some food at a restaurant, or have bought a train ticket and engage in social interactions. Such VR situations enable students to practice the Chinese language in real-world conditions and help them

better comprehend it and how to generate language in real-world settings. Studies have demonstrated that VR is able to positively impact fluency in speaking and give the students confidence because it offers a safe environment where students can commit errors and have instant feedback^[8, 50, 51].

The AR technologies allow students to engage with the real world with the use of digital overlay, which is particularly relevant to teaching Chinese characters. As an example, it is possible to arrange AR applications that show strokes sequence on the screen in the process of writing characters and give step-by-step information that can help students adhere to their order and form. It is also possible to use AR to annotate the texts with information on a radical, pronunciation and situational meaning to enhance the learning process. AR allows visual and real-time information providing students with deeper insight into the writing system, which, in turn, is a difficult endeavor, especially when it comes to non-native learners. Both VR and AR improve the learning process through offering realistic, interactive, and scaffolded experiences in which learners are able to rehearse Chinese language skills in a contextual manner. The technologies contribute to closing the divide between theory and practice, providing the learners with the opportunity to implement their skills in real-life, dynamic environments^[52, 53].

3.3 Gamification and Engagement Platforms

Gamification can be defined as the implementation of game-based components in learning processes to raise the levels of motivation, engagement, and retention of the students. Gamification strategies have gained popularity as soon as the Chinese language is taught in order to stimulate engagement, to reinforce knowledge as well as monitor development. Websites such as Quizlet and HSK Online provide interactive flash cards, tests and games that students use to train and study their vocabulary. Using gamification methods, like leaderboards, achievements badges, and points, such tools are more interactive as they promote healthy competition and allow students to revisit the material overtime. Moreover, spaced repetition algorithms, which many of such platforms include, indicate that learners study vocabulary at the most ideal time, and it contributes to its longer retention and recollection^[54].

Digital role-playing games (RPGs) are becoming the new experience in trying to mimic the real-world situation whereby students have the opportunity to practice using their Chinese language in a particular situation. Such games may include going through a market in Beijing or talking with a virtual shopkeeper. In addition to practice of language, RPGs provide cultural immersion, since the

players can interact with virtual characters who share realistic cultural norms and practices. This enables the students to be exposed to the use of the language in real life, situations that are culturally relevant and in so doing, they are exposed more to the language and the culture. The introduction of gamification in the Chinese language teaching process can make research of ordinary vocabulary drills and grammar exercises a two-way communication, engaging, and fun experience, promoting student engagement as well as motivation and retention rates^[55].

3.4 LMS-Centered Hybrid Instruction

Moodle, Blackboard, Canvas, and XuetangX are the Learning Management Systems, the central elements of the new hybrid teaching model, a combination of the face-to-face and online teaching. The systems are utilized to coordinate course materials, lectures, discussions and student progress.

The LMS systems allow instructors to post all sorts of resources (videos, readings, assignments, quizzes, and so on) at the center of which students can view course materials at their own pace. Multimedia resources like video lessons on pronunciation, interactive quizzes on grammar and vocabulary, and discussion forums where students practice writing and speaking are possible on such platforms regarding the learning of Chinese language^[56].

The hybrid instruction model creates a blended learning experience, which integrates synchronous and asynchronous features. As an example, students will be able to be involved in live virtual classes where they will be able to speak and discuss on the interactive classes, as well as watching pre-recorded lectures or doing exercises at their speed. This flexibility will enable the learners to study at their own time and this is particularly important to learners who may owe some other obligations but may not be in the right time zone to study. CLT work on LMS-based hybrid instruction has benefited accessibility due to the possibility of studying course material outside the classroom and increased levels of autonomy in the learning process^[57, 58].

3.5 Corpora and Authentic Digital Resources

Corpora and corpora grand are increasingly widespread in Chinese language teaching, and using corpora marks the commencement of the 21st Century. Digital corpora enable learners to study the language as it is actually being used in the world because such corpora include authentic language sample, e.g. texts of the newspaper, academic articles or conversations. The BCC Corpus and the Lancaster Corpus of Mandarin Chinese, are rich depositories of written and

spoken Chinese containing authentic examples that students may examine in order to determine collocations, grammatical frameworks and usage patterns. Through the practical work of real-world data, students will have additional insight on what language does occur in different situations, thus allowing them to understand the subtlety that is often ignored in the textbooks. The digital material includes online versions of Chinese-language newspapers, blogs and video, where the students can access real and updated material that is helpful in strengthening their knowledge of references within cultural context, expressions and events happening in the current events. In videos with subtitles, such as having subtitles in Chinese, the student is activity encouraged to listen to Chinese and graphics are used to associate the word correlatively (with its meaning) as part of multimodal learning. When exposed to such resources, students are able to build their language skills in a manner that reflects the natural language acquisition situation in the real life ^[59-61].

By introducing corpora and authentic digital resources into the Chinese language curriculum, students will be able to use the language in a significant and constructive manner, enhancing their capacities to read, write and talk to one another in the real life.

The new digital practices mentioned in this section AI-assisted learning tools, VR and AR technologies, gamification, LMS-centered hybrid instruction, and incorporating corpora are changing the picture of the Chinese language teaching at the university level. These technologies offer personalized learning experiences to students, which are interactive and immersive, and which are spe-

cific to the distinctive demands of learning Chinese. These digital strategies are contributing to making the process of Chinese language education more approachable, practical and pleasant by increasing engagement, delivering instant feedback, and exposing students to real-life Chinese language usage. With the current developments in these technologies, they find the potential of pushing language teaching to even greater heights with new avenues that can be adopted by both learners and teachers ^[62].

4. Case Studies of Successful Digital Transformations

Case studies are significant in demonstrating how the digital transformation strategies have proved their effectiveness in learning environments in the real world. Analysis of real cases of the most prominent institutions helps us accumulate the precious experience of challenges, success, and lessons learned in the process of employing digital tools to teach Chinese languages. In this section, four elaborate case studies have been given by major universities in the world that include Peking University, National University of Singapore (NUS), University of British Columbia (UBC), and Tsinghua University. Both examples showcase the specialization of the approach the institution faces, the technologies incorporated, and the results obtained, and generalize on how digital transformation is changing the Chinese language education on the university level ^[63, 64]. **Table 2** provides a comparative report on these case studies, including the technologies applied, the subject of initiatives, and results obtained.

Table 2: Case Studies of Successful Digital Transformations

Institution	Technology/Platform	Focus/Goal	Outcomes
Peking University	AI-powered Writing Enhancement	Improve writing accuracy through real-time feedback	Improved writing proficiency, higher student engagement
National University of Singapore (NUS)	VR-based Conversational Mandarin	Immersive practice of real-world conversations in Mandarin	Increased speaking fluency and confidence
University of British Columbia (UBC)	Linguistic Corpora, Digital Text Analytics	Enhance reading and writing through authentic language data	Improved vocabulary acquisition and learner autonomy
Tsinghua University	XuetangX LMS, Flipped Classroom	Hybrid learning model with pre-recorded lectures and interactive sessions	Improved learner performance and reduced instructor workload

4.1 Case Study 1: Peking University – AI-Assisted Writing Enhancement

Peking University, a highly regarded Chinese academic institution has been on the center stage in incorporating AI in its Chinese language-based programs. The university launched an AI-based writing improvement system that is supposed to help students to improve their proficiency in writing Chinese especially regarding grammatical, syntax,

and coherence skills.

The AI-powered-platform available at Peking University is based on the natural language processing and machine learning algorithms, which analyze the written Chinese of the students. Student delivers are processed by the system, and they detect frequent mistakes in the usage of characters, the sentence structure, and even the style. Such AI tools can be an invaluable piece of guidance and support to Chinese language learners where the accuracy

of word order, character selection and tone is of paramount importance. Among the most important benefits of this AI platform, one can point to the fact that it provides real-time feedback. The students will be provided with instant corrections, and suggestions which make them perfect their writing right there. Moreover, the platform classifies the mistake that may occur either in grammar, choice of vocabulary, or syntax to allow educators to understand the mistakes that are mostly committed by students. Such classification of errors enables teachers to modify their classes and pay attention to those areas where students might require additional assistance.

The study conducted by Peking University has demonstrated that the accuracy of writing has increased significantly with the introduction of AI-assisted writing tools. Individual students indicate increased engagement through instant feedback loop which AI platform offers. Such ongoing feedback encourages students to edit their work and use a more iterative approach to learning in the end resulting in better and more refined writing as time progresses. In addition, the system can monitor progress of the students and thus enable the instructors to establish particular areas where particular students are performing poorly to then apply interventions that are more personalized and focused. Comprehensively, the case of Peking University serves to show the way in which AI-based tools could greatly improve the quality of the instruction in Chinese composition, as they could provide personalized feedback in swiftly scalable manner, which would have been virtually impossible to provide in a real classroom ^[65, 66].

4.2 Case Study 2: National University of Singapore – VR for Conversational Mandarin

VR has been adopted by the National University of Singapore as the means of offering experience via VR to Mandarin learners. NUS has used VR to introduce the real-world communication gap between theoretical language learning and real-world communication through the creation of virtual spaces in which students are able to interact with AI-driven avatars in conversational situations. NUS created a VR type of platform that put students into the real-life situation where they were able to rehearse the Mandarin conversation. In such virtual world, students are forced to deal with their avatars when it comes to ordering food at a restaurant, using the public transport or even engaging in some light conversation in a Chinese market place. Such simulations are close to the real life and, therefore, the experience with language-learning becomes more practical and closer to the real-life ^[67].

The ultimate addition of VR is to train speaking fluency and increase the confidence of students regarding their

speaking ability. The conventional language teaching strategies usually does not include enough speaking practice, particularly with those students who are not surrounded by a Chinese speaking setting. The VR environment is a safe and controlled environment where the students can practice the language and they can explore and experiment with the language without worrying about students seeing them do something wrong. The system provides real-time feedback on pronunciation, sentence composition and tone and assists the student to perfect conversational skills and gain confidence in communicating in Mandarin. Studies carried out at NUS have demonstrated a substantial increase in fluency and confident speaking among the students that were subjected to the VR conversational Mandarin program. Further, VR immersive characteristics allowed the learning process to be more interactive, as students expressed the extreme level of motivation to engage in the VR-based lessons. With the combination of high-tech technology and the language education method, NUS has managed to establish a new form of learning, which allows people to actively use the language and replicate the complexity of real-life issues oral Mandarin language use brings.

The case of NUS points to the possibility of VR to give interactive and interactive and efficient language learning experiences that are out of the classroom environment which will help learners acquire the practice of sound communications that is crucial in learning Mandarin ^[68, 69].

4.3 Case Study 3: University of British Columbia – Corpus-Based Teaching of Chinese

University of British Columbia in Canada has incorporated the use of corpus-based teaching approach into its Chinese language programs in a bid to improve reading and writing in students. Through large and authentic language corpus, UBC enables students to be exposed to the real language usage whereby they are more attached to grammar patterns, vocabulary collocations and meaning in context.

In UBC, such linguistic corpora as BCC Corpus and the Lancaster Corpus of Mandarin Chinese are incorporated into the curriculum. These corpora include large repositories of written and spoken Chinese of diverse sources of life, such as newspapers, written materials, and speech. Students study these resources to examine the real language samples and diagnose the repeated patterns and pay attention to the fact how the language operates in real situations. Digital tools allow students to access the corpus data and conduct their search in terms of collocations (words that can appear in combination very often) and discover grammatical constructions and patterns, as well

as examine idiomatic phrases. This approach is in contrast with the old system of the textbook learning when language is frequently supplied in the form of decontextualized artificially created sentences. Through the exposure to real-life data, students have more insight into the theory of the practice of the Chinese language, improving their skills in reading and writing Chinese.

The UBC studies have demonstrated that corpus-based education contributes to the acquisition of new vocabulary and learner independence to a great extent. The examination of real texts will equip the student with a better understanding of language options and usage thereby enabling the student to use the language in a more natural and correct way. The application of corpora is also beneficial to motivate the students towards ownership of their learning experience where students are made to explore and analyse the language on their part and generate skills that will go beyond the classroom. Corpus-based teaching adopted at UBC is a valuable case study of how digital objectivity could be employed to develop more realistic and rather data-driven modes of learning to improve the knowledge of Chinese influenced by real-worlds in students^[70-72].

4.4 Case Study 4: Tsinghua University – LMS-Based Hybrid Instruction Model

As an alternative Chinese establishment, Tsinghua University has formulated a very organized hybrid teaching pattern of CLT. The model involves an LMS (XuetangX) and the flipped classroom based on the model and combines the advantages of internet-based learning, with face-to-face learning involving interactive learning efforts.

In Tsinghua University, the hybrid learning model makes use of the XuetangX LMS which is applied to deliver pre-recorded learning content (lectures, assignments and learning materials). The students are involved in the online material in an asynchronous manner, which implies they will have the opportunity to study the lessons at their prescribed speed, and they will be able to get involved in the synchronous and in-person lessons. These video conferencing sessions are based on interactive speaking and writing activities and are dedicated to training the students to understand the learned material online and apply it to the group work in real-life situations. Under the so-called flipped classroom model, students study the instructional material outside the lesson via the LMS and pay attention to grammar, vocabulary, and reading comprehension. Active learning activities which include speaking, writing assignments, and group discussions are then allocated classroom time. This is a better strategy, it helps to involve students and to learn even more because a new knowledge can be implemented right away in the creating atmosphere

and students have an opportunity to discuss their questions with one another^[73, 74].

The hybrid model has been applauded as having increased the performance of the learners as well as efficiency by the instructors. The learning flexibility of asynchronous learning is beneficial to the students as they can still access the benefits of real-life interaction throughout the synchronous learning module. It also leads to the situation where the workload of instructors is also lesser because much of the delivery of the materials is through the Internet giving them more time to do personalized teaching and interacting with the students. The model has been known as a national best practice in teaching languages and has been taken by other institutions that are interested in using it to adopt an identical hybrid practice.

The case of Tsinghua University proves that integrating LMS solutions with the principles of the flipped classroom can help to increase the quality of the Chinese language teaching process and make it more flexible, more efficient, and more engaging.

The case studies that have been provided in this section can bring out the varying aspects of how universities have taken adoption of digital transformation in the teaching of Chinese language. At Peking University, with AI-assisted writing systems, NUS, conversational practice with VR options, UBC, corpus-based learning, and LMS-based hybrid learning, Tsinghua are on the front line of offering new approaches that are transforming the teaching of languages. Both cases illustrate how in different ways technology may be utilized to deal with the difficulties of learning Chinese language, including learning complex characters, developing adequate tonal pronunciation and communicative competence. The achievement of such digital transformation projects is an important source of insights and practical advice to other institutions that seek to introduce technology in their respective Chinese language programs^[75, 76].

5. Proposed Framework for Digital Transformation in Chinese Language Education

The above areas have addressed the different emergent strategies and case studies which demonstrate how digital resources are effectively being applied to CLT in university level. Although the examples mentioned above prove the possibility of the digital transformation, the coherent and systematic approach is the key to successful implementation of such strategies. This section presents an overarching outline of the universities intending to implement or improve with digital transformation in the Chinese language programs. The framework is meant to offer specific action-oriented steps that the institutions can

work on in ensuring that digital tools are incorporated in an effective way resulting to lasting positive teaching and learning outcomes^[77].

It is proposed to have three pillars of the framework which are pedagogical redesign, development of digital infrastructure and continuous professional development of instructors. Also, the framework provides an elaborated roadmap of implementation, with stages of need assessment, choice of suitable technologies, pilot operation, and expansion of digital activities. It also integrates the quality assurance mechanisms to make sure that the digital strat-

egies are fully integrated and being seamlessly optimized. A simplified version of the pillars of the framework with the implementation phases together with the main quality assurance processes that should be applied to achieve the effectiveness and sustainability of digital tools in Chinese language teaching are represented in **Table 3**. These steps can be implemented within a systematic way so that the universities can adopt and scale digital strategies in a manner that will enable them to maximize the learning outcomes and also mitigate any challenges that may arise^[78].

Table 3: Framework for Digital Transformation in Chinese Language Education

Core Pillar	Key Elements	Implementation Phase
Pedagogical Redesign	Align digital tools with modern language teaching methods (CLT, TBLT, etc.)	Needs Analysis, Technology Selection
Digital Infrastructure Development	Build robust LMS platforms, ensure access to devices, provide ongoing technical support	Pilot Testing, Scaling, Continuous Improvement
Instructor Training & Digital Literacy	Offer professional development, encourage collaboration, and foster digital pedagogy	Professional Development, Support for Digital Adoption
Implementation Roadmap	Curriculum & Needs Analysis, Pilot Testing, Scaling, Continuous Feedback	Ongoing Implementation and Quality Assurance
Quality Assurance Mechanisms	Learning analytics, AI performance tracking, curriculum audits	Data-Driven Decision Making, Regular Audits, Continuous Improvement

5.1 Core Pillars of Digital Transformation

In order to make a fruitful digital transformation in teaching Chinese as a language, it is essential to match technology integration with the pedagogical understanding and the resources of the institution. This process is based on the three main pillars of this framework pedagogical redesign, development of digital infrastructure, and training of instructors.

Pedagogical Redesign

The initial aspect of the framework is the pedagogical redesign that is based on the need to make sure that digital tools are basically consonant with proper principles of language teaching. Technology should not be at the core of digital transformation but rather based on well-grounded pedagogical models. The implementation of the digital tool should be underpinned with the integration of the educational theories, which have been shown to foster active learning, learner autonomy, and communicative competence. The pedagogical redesign ought to be congruent with the contemporary methodology of language learning such as Communicative Language Teaching, TLBT, and Constructivism. These methods are based on interaction, the real world and exploration by the learners. AI-powered writing assistants or VR chat rooms can be utilized as digital aids to CLT to create an environment of immersion

and provide immediate feedback on linguistic exercise.

Individual learning can also be achieved with the use of digital tools that will accommodate the diverse learning needs of students. An example is adaptive learning systems capable of providing differentiated lessons to each learner profile so that the instructions are focused to meet the individual challenges and to provide different learning rates. In the teaching of the Chinese language, one should also consider the tools of inculcating the cultural background with the language proficiency. The redesign of pedagogical should introduce the use of digital tools which will expose students to real cultural experiences like virtual field trips, cultural simulations and interactive media, all of which serve to bring the language to context in terms of culture^[28, 49, 79].

Digital Infrastructure Development

The second pillar is devoted to establish a viable digital infrastructure which shapes the use of technology in the classroom. Effective digital infrastructure means having the knowledge of reliable tools and platforms that allow instructors and students to experience the learning process.

The institutions need to invest on sound LMS that act as a focal point of course materials, assignments, and contact between the learners. Online platforms including Moodle,

Blackboard and Xuedong offer an orderly and magnify scale method of teaching online and hybrid classes. Furthermore, universities ought to make sure that everybody has the devices and a decent internet connection and carefully consider the students in remote or underrepresented regions. Unrelenting technological assistance is critical to the instructors as well as students. To achieve smooth running of digital platforms and tools within universities, help desks must be set up, technical training should be offered, and it should have a troubleshooting option. Furthermore, the institutions need to have a mechanism of updating and servicing the digital resource periodically so that they are not left behind in any way when compared to the current developments in the educational technology. Since educational technologies usually gather sensitive personal and academic information, the institutions should have strong data security systems in place to safeguard the information of students. It is paramount to implement robust privacy measures and uphold the appropriate legislation to uphold trust and openness in the online learning setting, including GDPR^[80].

Instructor Training & Digital Literacy

The third aspect of the framework is teacher education and digital literacy favoring. The efficiency of digital tools determines their use despite having the most appropriate technological tools, with the main responsibility being how instructors can incorporate these tools in their instruction. The institutions ought to offer continuous professional development opportunities to the instructors in order to make sure that the digital tools are used effectively. Such programs are supposed to focus on digital pedagogy, where teachers are trained to operate technology in a way that truly improves language teaching to stimulate learner interest. As an example, teachers can be informed how to incorporate AI-based writing feedback into the classroom, use VR in conversation practice, and create interesting online assignments. The culture of collaboration and knowledge among faculty should also be developed in the institutions. The process of sharing best practices, troubleshooting and being informed about the recent advances in the field of educational technology can be organized through frequent workshops, seminars, and online communities.

Moreover, a digital adoption will have to be supported, because some of the instructors might be reluctant to make use of new technologies because they are not very clear or comfortable. It is possible to offer initial and continuing support like one-on-one coaching, instructional guides, or mentoring by more senior digital educators to get through these obstacles and feel comfortable using technology in

their teaching^[81, 82].

5.2 Implementation Roadmap

To successfully introduce a digital transformation in the teaching of the Chinese language, it is important to take it step by step so that technologies could be introduced in a systematic way. The roadmap implementation suggests five important stages: needs analysis, selection of technologies, pilot testing, scaling, and continuous improvement.

Phase 1: Curriculum & Needs Analysis

The initial stage entails proper survey of curriculum, needs of students and institutional preparedness. This is in determining the learning outcomes that the digital resource must facilitate and evaluating areas of the curriculum that could be improved with the use of technology. Also, the institutions are to check their technological infrastructure, teacher digital literacy and student access to digital resources. The needs assessment carried out by institutions must be extensive so that the various learning needs of the students who study Chinese can be understood better. This entails gathering data on the chosen learning style among students, technological familiarity and the exact challenges they face in learning the language. Surveys, focus groups and interviews will provide detailed responses through which the institutions can know how best they can use the digital tools and resources to help the students overcome the challenges and achieve their objectives of language proficiency^[49].

Phase 2: Appropriate Technology Selection

Having done the analysis of the needs, the institutions may start choosing the most suitable digital tools and technologies. It is a process of selecting platforms, software and application that meet pedagogical interests and institutional assets.

The features to be considered include things like ease of use, alignment to the results of learning, scalability and integration with already existing platforms. As illustration, an LMS must be designed in a way that multimedia materials, interactive quizzes and communication systems can be smoothly integrated whereas AI-based writing assistants should be able to offer real time feedback on Chinese writing and grammar. The factors guarantee that the chosen technologies are effective in meeting the learning needs of students and help them to reach the level of language proficiency^[83].

Phase 3: Pilot Testing

During this stage, the universities need to be able to

test the chosen technologies, and use them during a few classes or on a few students. This enables one to determine the possible problems and refine the implementation process prior to the full-scale implementation. The pilot stage is the most important during which the instructors and students give feedback. The feedback needs to be centered on factors like usability, engagement, effectiveness and technical challenges in the process of the trial period. These insights will prove essential in determining areas where improvements can be made and where the technology can be used to address the needs of the learners and the teachers^[84].

Phase 4: Scaling Across Courses

After successful completion of pilot and adjustments needing to be made, the second step is scaling the digital tools in more courses and programmes. The implementation of digital technologies can be extended to other cohorts by institutions, which will ensure its implementation gradually. The institutions are to endeavor to implement the digital tools as a normal instructional practice as they are scaled. This could include redesigning courses to encompass the digital resources in the syllabus as well as developing new assessments that make use of the digital platforms and promoting further adoption of the technologies by the faculty. These tools are intended to be viewed as the inseparable elements of the teaching and learning process, both increasing the learning experience and outcomes.

Phase 5: Continuous Improvement

Digital transformation is a continuous process, and institutions have to evaluate the success of their digital strategies all the time. The task of this phase is to gather information about the performance of students, their engagement, and satisfaction and instructor's feedback.

LMS systems and AI tools can provide useful learning analytics that can help assess student progress and identify areas that require future enhancement. It is through this form of data that an institution should utilize such information to make conscious decisions on improving the learning process, revising course materials and improving the teaching process to effectively achieve student success^[85, 86].

5.3 Quality Assurance Mechanisms

The area of quality assurance is crucial to the process of the digital transformation, as the institution must guarantee that the embracing of digital tools will lead to the improvement of the outcomes of learning and that the academic standards will not be violated by the changes. Such

platforms as Moodle and Canvas have inbuilt analytics systems that can monitor student engagement, completing assigned activities, and interaction behaviour. Such items of data communicate useful information to determine the success of digital tools and areas to modify them to make informed decisions regarding the use of digital tools and their influence on student learning. Student performance is also an important aspect that is monitored by AI performance tracking especially writing, pronunciation and grammar. Through this information, teachers can decide if students are making progress through an analysis of the information and whether the AI devices are offering them sufficient assistance that improves their experience of learning. Also, to make sure that digital tools do not conflict with the overall curriculum, and overall pedagogical goals, regular curriculum alignment audits would be in place. The audits assist in the confirmation that technology is being applied strategically in order to support the learning objectives of the program and not just because it is the need to integrate new technology^[87-90].

It is suggested that the proposed digital transformation framework in Chinese language teaching offers a framework that gives a systematic step of adopting digital tools by the universities in their teaching methods. The framework helps to make sure that technology facilitates, instead of interrupting, the learning process, by putting an emphasis on pedagogical redesign, development of digital infrastructure, and ongoing training of instructors. The implementation roadmap is developed in detail to enable institutions to undertake the steps step by step, starting with the analysis of needs to the sustainability of digital implementation tools to be applied in a wise manner. Finally, there are quality assurance mechanisms, which guarantee enhancing student learning outcomes and promoting academic integrity as a result of the digital transformation efforts. Within this framework, universities will be able to overcome the challenges of the digital transformation and bring up an interactive, accessible, and more practical way of learning the Chinese language^[49, 91].

6. Discussion

Introduction of digital technologies into teaching Chinese language can transform the way language is taught and learnt in universities. Although the above sections have presented the new strategies and frameworks, this section presents the discussion of the beneficial aspects, problems, and future research perspectives surrounding digital transformation in CLT. Discussing the major benefits and challenges of the application of digital tools and the ethical and pragmatic concerns that relate to this phenomenon, this discussion will help to gain a deep in-

sight into how the process of digital transformation can be maintained and improved in the area of Chinese language teaching ^[7].

6.1 Benefits of Digital Transformation

The adoption of digital technologies in Chinese language teaching brings numerous advantages that significantly enhance both the learning experience and the teaching process. Below, we explore the major benefits:

Personalized Learning Pathways

Perhaps one of the most notable advantages of digital transformation is the fact that it is possible to provide personal learning experience. Adaptive learning systems and AI-integrated websites will enable Chinese language learners to work with the content which meets their unique needs. Indicatively, applications such as AI-style writing feedback systems can detect the weak points of the writing of students in terms of grammar, sentence structure, or the use of characters and give feedback on specific aspects. On the same note, adaptive learning technology would be able to tailor vocabulary and grammar activities depending on the performance of a student, in such a way that a learner is never below his/her level. Bespoke and individualistic in nature, this method not only helps learners learn faster, but also assists those who are at other levels of being conversant with the language. More complicated activities can be offered to advanced learners, whereas the beginners can be concentrated on the fundamental ones, such as character recognition and basic vocabulary. Consequently, students will not feel overloaded or bored so much, and will be able to advance at their own rate, which will result in more increased levels of success ^[63, 92, 93].

Greater Access to Authentic Language Input

The other essential benefit of digital tools is the fact that they would offer students authentic and real-world language input. The use of the linguistic corpora, digital newspapers, subtitled videos, and audio recordings enables the learners to work with Chinese as it is spoken in different situations, i.e., it may be relevant in such situations as news reports, casually spoken dialogues, academic papers, and online sources. It is on this basis that exposing the authentic language becomes critical in building a fine understanding of Chinese grammar, syntax and vocabulary and also creating a cultural awareness. In a more traditional classroom environment, the input of language is quite simplified and it is extracted out of a real-life application and therefore it is difficult to learn to use the language in the non-textbook context. Through the incorporation of real texts, a digital

technology can enable students to observe the use of the language by native speakers in different contexts be it formal written Chinese, vernacular speech, or specialized terms. The exposure to variety of language structures also helps students improve their capacity to understand, speak and adjust their language appropriation to varied social and cultural context ^[94, 95].

Reduced Teacher Workload and Increased Efficiency

Digital tools are also capable of decreasing the quantity of work of the teacher, in particular, the repetitive work, which may be connected to grading, error correction in pronunciation and basic vocabulary review. The AI can automatically get instant feedback on writing, pronunciation and grammar, which enables the instructor to use their time on more nuanced and challenging elements of language education, including interactive speaking and personalized teaching. These technologies may also be used to enhance the effectiveness of language teaching besides offering time management. To take another example, an AI-based pronunciation app allows the student to train his tones and pronunciation in real-time and correct errors as he makes them, which in many cases, is hard to be done manually by the instructor. Likewise, assessing writing automatically enables students to receive instant ideas on how to improve without the teacher taking time to correct the students on their minor, repetitive mistakes ^[96].

Enhanced Motivation through Multimedia and Gamification

Multimedia, gamification, and interactive approaches of digital media are very effective in motivating students. Learning Chinese language may be difficult particularly to new learners, as one is required to remember a lot of characters that are difficult to comprehend and remember the language is also complicated. The use of game-like elements with the help of points, badges, leaderboards, and rewards can make learning more engaging using digital tools. These aspects do not only make the learning process pleasant but also give the students some visual representations to know where they are, which brings in a sense of fulfillment. Interactive systems such as Quizlet, HSK Online, and other apps in learning languages adopt the spaced repetition algorithms to enable the students to learn the vocabulary better. Gamification allows students to interact with the language in enjoyable, purposeful ways; thus, they will not see the process as tedious and will see it as a challenge. Such enhanced interaction means enhanced retention, increased learning, and enhanced achievement ^[97, 98].

6.2 Challenges of Digital Transformation

There are also various challenges that are associated with the use of digital tools in CLT, despite the number of its benefits. These barriers may interfere with the positive introduction and the sustainability of digital transformation projects. Some of the most important challenges are discussed below:

Technological Inequality between Institutions and Learners. Among the challenges is poor access to technology by the various institutions as well as among learners. Although a few universities might allocate funds to the purchase of the most modern digital tools in the developed or larger cities, in some cases, other institutions, particularly rural or developing ones, might be limited to the availability of a good internet connection or up-to-date technology and the right investments to install digital technology in their institutions. Such digital divide may result in a gap in the learning process of students, and possible advantages of digital transformation will be addressed^[8, 99].

Also, there are not only access to technology but also additional difficulties that may be encountered by the students themselves. In this regard, students living in low-income families or other poorly connected locations might not have access to personal devices or good internet connectivity, which could hinder their use of digital resources to the fullest extent. The institutions need to come up with a solution to address this disparity, either by subsidizing technology, creating off-line learning resources or by coming up with other innovative methods of making all students gain equal opportunities of even enjoying the advantages of digital change.

Overreliance on AI and Technology-Generated Output

The other digital transformation challenge that can be identified is the risk of over dependence on AI generated content or technology-based feedback among students. Although AI has the potential to be an effective means of receiving custom learning opportunities and real-time feedbacks, it cannot replace the human interaction and instructions. The excessive use of AI tools can result in the students not developing critical thinking skills, creativity, and solving language issues on their own without the help of technology. An example is that students can be over-dependent on AI writing help colleagues or pronunciation error detection software instead of training themselves to identify and correct errors. Equally, students can be using online flashcards and games to an extreme without knowing the underlying grammar and culture. The teachers

should be careful not to over-depend on such tools, and make sure that students do not fail to acquire the essential critical language skills and problem-solving skills using any interactive and human activities^[49, 88, 100].

Ethical Concerns Regarding Data Privacy

With the frequent use of digital tools by students necessitating the provision of personal data and use of online resources, the issues with data security and privacy have gained more publicity. The AI tools and LMS platforms gather vast quantities of data concerning the performance, engagement, and behavior of the students, which may be useful in enhancing the student learning. Nonetheless, it is also this data that makes one consider the issue of privacy, data protection, and the possibility of misuse.

Institutions should be open in the collection, storing, and using of student data. They should adhere to data protection laws (i.e. GDPR or FERPA) and make sure that adequate measures are present to assure safety of personal and academic data of students. Also, AI-generated content should be used thoughtfully so as not to encourage any biases or inaccuracies in algorithms so that the digital tools do not perpetuate stereotypes or give incorrect information^[22, 101].

Teacher Resistance Due to Unfamiliarity with Digital Tools

Lastly, the problem of teacher resistance can still be a turning point to the successful digital implementation in language teaching. Lots of teachers can be reluctant to use new technologies because of the unawareness of the tools, because they could easily lose their jobs, or just because these people are not ready to innovate the traditional system of teaching. This resistance may hinder the speed of the adoption process and restrain the efficiency of the digital transformation programs. To break this resistance, the institutions should invest in teachers continuing professional development and support. It could be possible to provide teachers with training in the field of digital pedagogy, provide continuous technical assistance, as well as create an international culture of collaboration and sharing knowledge in order to achieve a level of comfort with the integration of technology into the educational process. This will not merely enhance the overall teaching experience of a teacher, but it will also make certain that the digital transformation is adopted as an enhancement, not as a substitute to the traditional means of teaching^[102].

6.3 Future Research Directions

Though the effect of digital transformation on CLT has

already been radically established, a number of areas can be explored further to ensure that such tools persist in enabling learners to acquire languages effectively. The areas of future research may include:

Ethical and Responsible Use of AI

With increased use of AI in the language teaching field, there is a need to investigate the scope of AI in the classroom in terms of ethics. A study needs to be done to investigate the manner in which AI can be employed in a responsible manner such that it only gives true, unbiased deliveries without interfering with the privacy of students. Another possible direction of future research is the impact of AI in helping to preserve cultural and linguistic diversity when it should be ensured that AI tools can assist in teaching Chinese language in as many dialects, registers, and cultural nuances as possible ^[103].

Long-Term Cognitive Effects of AI-Supported Language Learning

Although AI-provided instant feedback has proven to improve language learning, studies are required to comprehend the long-range cognitive consequence of learning a language with AI-assistance. What effect does the AI tool usage have on the memory, problem-solving, and critical thinking of students? Longitudinal research would have provided the educators with a more accurate idea of how digital-based applications affect the cognitive development of individuals over time and aid them in designing more effective interventions at the language learning level ^[104].

Multimodal Data Integration for Learning Analytics

Multimodal data can be integrated into learning analytics, including speech, writing, gestures, and emotional reactions, which may have a stronger overview of the language learning process. The current scientific field regarding the possibility of using multimodal data to monitor students and give them real-time feedback on their learning patterns would help improve the capacity of digital tools to assist language learning. Future research should consider ways in which these sources of data may be incorporated in AI-driven environments and make learning experiences more personalized and fuller ^[105, 106].

The Chinese language teaching digital transformation promises enormous potential in enhancing access, engagement and learning outputs. Nevertheless, to be implemented successfully it is the matter which needs to be paid close attentions to the merits and the obstacles it may introduce. With the explanation of the obstacles associated

with the technological disparity, excessive use of AI, data security, and resistance of teachers, institutions can establish more efficient, sustainable digital learning spaces. The ongoing study on ethically using AI and the cognitive impacts of AI as well as multimodal data will further develop the mode of using digital tools in teaching Chinese language so that it will continue to be a potent tool in the teaching process under the digital era ^[49, 107].

Conclusion

The digital transformation is admittedly changing the face of teaching the Chinese language at university level. Amid further development of technology, digital tools that include AI, Virtual Reality VR, Learning Management Systems, and gamified platforms are more actively incorporated by universities in the process of teaching. These innovations reap great benefits of overcoming the very nature of teaching a complex and character-based language like Chinese as acquiring pronunciation, tonal variations, and learning how to write in the Chinese language. Through the ability of these technologies, teachers can offer more customized, scaled and interactive learning opportunities to students, despite their geographic location and level of proficiency. The paper has examined the theoretical framework, new tactics, and practical case analyses of digital transformation in the Chinese language education practice. Based on the examples of the successful use of AI, VR, LMS, and the corpus-related tools in the colleges and universities of Peking University, National University of Singapore, the University of British Columbia, and Tsinghua University, one can conclude that the use of this combination can create even more interactive and immersive and effective language learning settings. Nevertheless, the effective implementation of these digital tools will require both proper planning and correspondence with pedagogical objectives and both technical systems and consistent instructor development. Although digital transformation can be promised, many challenges have been identified, which are technological inequality, overdependence on the content created by AI, privacy of data, and educators are not afraid to change. These pitfalls have to be approached carefully by carrying out research and professional growth and defining policies on ethical use of information and AI in learning. With the further development of the given field, the next generation of research on the long-term cognitive impact of AI-aided language learning, integration of multimodal data, and ethical analysis will improve and direct the evolution of the digital tools used in language teaching.

Finally, the Chinese language teaching in the digital form can be seen as an effective chance to achieve

language proficiency, intercultural communication, and equip the learners with the means that they will be able to succeed in the world which is rapidly evolving. With the adoption of these technologies and with meticulously managing the difficulties that they pose, universities may establish a more welcoming, participatory, and efficient learning experience in students, and make sure that digital change brings meaningful and lasting change to the teaching and learning of Chinese language. With Chinese language teaching in the digital era still evolving and getting more innovative, it can be concluded that the future of the Chinese language teaching is high and can bring a lot to both the students and the educators by providing new means to the students and the educators to meet, learn, and develop.

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The Logic of Humanistic Care in Sports Research: a Philosophical Interpretation of the “People-Oriented” Sports Values

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ABSTRACT

The global sports industry is thriving, and sports research in China is also rapidly advancing. This study focuses on the “people-oriented” sports values, aiming to analyze their philosophical connotations and practical applications. The research examines the specific manifestations of these values in school, public, and competitive sports domains, highlighting three major challenges in their implementation: constraints from traditional sports concepts, the impact of sports commercialization, and uneven distribution of sports resources. Based on these findings, three practical pathways are proposed: strengthening sports education reform, improving sports management and policy support, and promoting sports culture development. The study emphasizes that this value is key to restoring the essence of sports and fostering holistic human development. Future efforts will deepen interdisciplinary theoretical integration, promote high-quality development across various sports fields, and contribute to societal progress.

1. Introduction

The global sports industry is flourishing, and sports research is becoming increasingly extensive and in-depth. Relevant research in China is also growing rapidly. The “people-oriented” sports values emphasize the centrality of people, which is of great significance for reforming traditional sports education, promoting athlete development, and enhancing the social value of the sports industry. It can provide theoretical and practical support for the development of sports. This study aims to analyze its philosophical connotations and practical applications, using methods such as literature research, case analysis, and comparative analysis. Foreign countries have long paid attention to sports, human development, and social equity; Domestic research on this topic is increasing, and educational concepts are becoming more popular. However,

there are still shortcomings in theoretical exploration and empirical research.

2. The embodiment of the “people-oriented” sports values in different sports fields

The sports values of “people-oriented” have been deeply practiced in schools, the public, and the field of competitive sports. In school physical education, the teaching philosophy has shifted from focusing on skill imparting to student-centered, promoting diversified teaching methods such as games and situations, while paying attention to individual differences of students, developing personalized teaching plans, and comprehensively cultivating students’ physical fitness, psychological resilience, and social adaptability. In the field of mass sports, the National Fitness Program demonstrates humanistic care by improving

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community fitness facilities, equipping tailored equipment for different groups, providing professional fitness guidance services, and developing personalized fitness plans; The organization of mass sports activities focuses on the needs of participants, launching diverse fun activities such as fun sports games, square dances, marathons, etc., balancing safety and service quality, and enhancing participation and community cohesion. In competitive sports, athlete training is no longer limited to athletic performance, but focuses more on physical and mental health, adopting scientific training and rehabilitation programs, while strengthening vocational skills training and planning guidance to assist retirement transformation; The event organization takes into account the physical recovery of athletes and the viewing needs of the audience, arranges the schedule reasonably, introduces advanced technologies such as 360 degree replay, optimizes venue environment, transportation and catering services, comprehensively enhances the viewing experience, and fully demonstrates the leading role of “people-oriented” in the development of various sports fields^[1].

3. Challenges and difficulties faced by the “people-oriented” sports values

3.1 Constraints of Traditional Sports Concepts

The tendency of traditional sports concepts to prioritize competition over popularization seriously hinders the promotion of the “people-oriented” sports values^[2]. For a long time, competitive sports have dominated the strategic layout and resource allocation of sports development, with a large amount of manpower, material resources, and financial resources invested in it, with the core goal of cultivating high-level athletes and pursuing excellent results in international competitions, while the development of mass sports is relatively lagging behind. The coverage rate of community sports facilities in some areas of our country is relatively low, and old residential areas even lack basic fitness equipment, which greatly dampens the enthusiasm of residents to participate in sports activities. This concept limits the audience of sports to a few professional athletes, which fails to fully leverage the role of sports in promoting national health and comprehensive development, and contradicts the concept of “people-oriented” attention to the sports needs of the entire population. Another major drawback of traditional sports concepts is the emphasis on performance over personal development. In the field of competitive sports, performance is regarded as the primary criterion for measuring athletes and sports workers, leading to an overemphasis on skill training and performance improvement in the process of athlete

development, while neglecting comprehensive development factors such as cultural education, mental health, and social adaptability. Some young athletes receive high-intensity specialized training from a young age, lack systematic cultural learning, and find it difficult to adapt to social development after retirement; Meanwhile, excessive focus on performance brings enormous psychological pressure to athletes, which can easily lead to psychological problems such as anxiety and depression. In physical education, some schools focus on physical examination scores and adopt exam oriented teaching, neglecting the cultivation of students’ interest in sports and personality development, resulting in students’ resistance to sports and inability to enjoy the fun and benefits of sports.

3.2 Impact of Sports Commercialization

With the rapid development of the sports industry, the trend of commercialization is becoming increasingly evident, and the pursuit of commercial interests has had many impacts on the “people-oriented” sports values. Some events are overly packaged, and organizers focus more on commercial and market promotion, attracting attention through a large amount of advertising and celebrity endorsements, but deviating from the essence of sports and downplaying the competitiveness and sportsmanship of the events. Some commercial events, in pursuit of visual effects and topicality, set complex rules and fancy performance segments, ignoring the competitive quality of the competition itself, making it difficult for the audience to feel the true charm of sports. In the wave of commercialization of sports, the rights of athletes are often overlooked. Some sports agents and event organizers, in pursuit of short-term economic benefits, excessively arrange athletes to participate, resulting in insufficient rest and recovery time, and an increased risk of injury; At the same time, the distribution of athlete salaries is uneven, with a few star athletes earning high incomes and most ordinary athletes earning low incomes, making it difficult to guarantee their career and post retirement life. Additionally, there is a lack of sufficient support for career transformation and re education after retirement. In addition, commercial capital tends to invest in high commercial value sports projects and events, resulting in insufficient investment in mass sports and making it difficult to carry out community sports activities due to a shortage of funds; The service prices provided by commercial sports institutions are too high, exceeding the affordability of the general public, limiting opportunities for the public to participate in sports, and violating the principle of “people-oriented” to meet the needs of mass sports.

3.3 Unequal distribution of sports resources

Unequal distribution of sports resources is an important factor restricting the realization of the “people-oriented” sports values, which is highlighted by significant differences between urban and rural areas and regions. At the urban-rural level, cities have well-equipped sports facilities such as large venues, gyms, swimming pools, etc., which can host various high-level events, and have strong sports teachers who can provide high-quality sports guidance; However, sports resources are scarce in rural areas, with most rural schools lacking basic sports equipment and venues. Some villages have no public sports facilities, and the per capita sports field area is only about one-third of that of cities. At the same time, there are few sports activity organizations and a lack of professional guidance personnel, resulting in low sports awareness and participation among rural residents. At the regional level, developed eastern regions rely on strong economic strength and invest heavily in sports, leading to rapid development of the sports industry and possessing advanced facilities, outstanding talents, and rich activities; However, underdeveloped areas in the central and western regions have insufficient sports resources, lagging facility construction, low frequency of sports events, and serious loss of sports talents. This regional imbalance leads to significant disparities in the enjoyment of sports services among residents in different regions, which not only affects the realization of sports fairness, but also hinders the promotion and practice of the “people-oriented” sports values nationwide, resulting in some populations being unable to fully enjoy the benefits of sports and meet their sports needs, which contradicts the concept of caring for the sports rights of the entire population^[3].

4. The path and strategy of practicing the “people-oriented” sports values

4.1 Strengthening the reform of physical education

To implement the “people-oriented” sports values, it is necessary to promote the reform of physical education, with the core of updating educational concepts and innovating teaching models. The update of the concept should establish a student-centered approach, abandon the traditional emphasis on skill teaching, prioritize the comprehensive development of students, respect their subject status and individual differences, not only focus on improving physical fitness, but also pay attention to the cultivation of sports interest, consciousness and spirit, and help students develop their physical, psychological and

social adaptability comprehensively. Cultivating lifelong sports awareness is an important goal, which requires rich and diverse curriculum, sports and health lectures, cultural activities, etc., to enable students to understand the life-long value of sports and master health knowledge. Innovation in teaching mode is the key to improving teaching quality. Project based learning mode is student-centered, focusing on specific sports projects or themes, completing tasks through independent exploration and cooperative learning, and exercising comprehensive abilities. Teachers only play a guiding and supportive role; The combination of online and offline modes relies on abundant online resources, such as video teaching and live streaming, to provide students with independent learning of theoretical knowledge, exchange and discussion. Offline focuses on practical operation and targeted guidance. The organic integration of the two can fully leverage their respective advantages and improve teaching effectiveness.

4.2 Improve sports management and policy support

Practicing the “people-oriented” sports values requires optimizing the sports management system and formulating reasonable sports policies. The key to optimizing the management system is to clarify the responsibilities of multiple entities such as sports administrative departments, social organizations, schools, and enterprises, establish coordination mechanisms, where administrative departments are responsible for planning and supervision, social organizations undertake activity organization and service promotion, schools implement sports education tasks, and enterprises provide financial and technical support; At the same time, it is necessary to strengthen information construction, build a management information platform to integrate various sports information for sharing, simplify management processes, and improve service efficiency and decision-making scientificity. In terms of reasonable policy guarantees, policies that encourage national fitness need to increase investment in public sports facilities, promote the participation of social forces in construction and operation, improve fitness venues through diversified investment mechanisms, and organize various national fitness activities to stimulate public participation enthusiasm and create a good atmosphere; Policies to support the development of the sports industry should increase capital investment, establish special funds to support enterprise innovation, provide land tax incentives for industrial parks and other projects, promote financial institutions to provide financial services to solve financing problems, and strengthen talent cultivation. Through school enterprise cooperation, relevant majors should be established to pro-

vide talent support for industrial development and help the sustainable development of the sports industry^[4].

4.3 Promoting the Construction of Sports Culture

To practice the “people-oriented” sports values, it is necessary to strengthen the construction of sports culture, with the core being the dissemination of sports humanistic spirit and the cultivation of sports social organizations. Spreading the humanistic spirit of sports is the key to creating a good sports culture atmosphere, and the media and schools play a core role. The media can rely on multiple channels such as television, the internet, and social media to convey the humanistic connotations of sports such as hard work, unity, and fair competition through sports cultural programs, documentaries, celebrity interviews, and topic discussions, enhancing the dissemination effect; As the main battlefield of physical education, schools can integrate sports history stories and celebrity deeds into teaching to convey the spiritual core. At the same time, they can organize sports culture festivals, knowledge competitions and other activities to create a strong atmosphere, enrich students’ extracurricular life, cultivate sports interest and literacy, and help promote comprehensive development. Sports social organizations are an important force in promoting the development of sports, with both flexibility and professional advantages. In terms of event organization, diversified activities such as football leagues and fitness training can be carried out according to the needs of different groups of people, to meet the diverse sports needs of the masses, promote interpersonal communication, and enhance social cohesion; In terms of service supply, relying on a professional teaching team, we provide professional services such as skills training, event organization, and sports rehabilitation. We can also provide sports support to vulnerable groups through public welfare activities to promote sports equity; In terms of cultural promotion, sports culture exhibitions, lectures and other activities can be held to spread cultural knowledge and promote sports spirit. At the same time, international exchanges and cooperation can be carried out to introduce

advanced concepts and export local characteristics, promote the diversified development of sports culture, and lay a solid cultural foundation for the implementation of the “people-oriented” sports values.

5. Conclusion and Prospect

This study delves into the humanistic care logic and the “people-oriented” sports values in sports research, clarifying its core essence and theoretical support, analyzing its manifestation in schools, the public, and competitive sports, pointing out the challenges in implementation and proposing practical paths, emphasizing its importance in returning to the essence of sports and promoting comprehensive human development. In the future, theoretical research in this field will deepen interdisciplinary integration. In practice, school sports will focus on personalized and lifelong sports, mass sports will expand coverage, competitive sports will focus on the long-term development of athletes, and the sports industry will innovate services to help promote high-quality development of the sports industry and social progress.

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