The management model to enhance French teaching and learning quality: A case study of a university in Guangxi, China

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Abstract: With the continuous growth of China–France economic and trade relations (trade volume of USD 78.9 billion in 2023) and China becoming France's largest trading partner outside the European Union, the demand for skilled French language professionals in China has significantly increased. In response to this growing societal need, it has become imperative to enhance the quality of French language education. This study conducted a needs assessment among students and teachers majoring in French to examine both the current and anticipated conditions related to five key factors: curriculum, teachers, teaching materials, evaluation systems, and learning practices. The primary objective of the research was to identify the specific needs of these stakeholders and to design a management model aimed at improving the quality of French language teaching and learning at a university in Guangxi, China. Findings revealed the prioritized needs of both students and teachers based on the Priority Needs Index (PNI) for the five variables. Notably, the variable "curriculum" recorded the highest PNI scores for both groups, indicating it as the most critical area for development in the proposed model. Based on these results, a management model comprising five components was constructed to enhance the overall quality of French teaching and learning.

Keywords: French teaching and learning, Management model, Needs assessment, Teaching and learning quality.

1. Introduction

In recent years, as China's economy continues to grow and its global connections deepen, particularly with countries like France, the demand for professionals who are proficient in French has seen a sharp rise. This shift has led to a rapid expansion of French language programs across Chinese universities. Back in 2009, fewer than 100 universities offered French as a major; today, that number has climbed to over 160, with student enrollment increasing significantly as well [1]. Between 2010 and 2023, the number of Chinese learners of French tripled from around 100,000 to nearly 300,000. French has now become one of the most widely studied foreign languages in China, second only to English. Data from Campus France shows that participation in DELF/DALF exams doubled between 2015 and 2022, and the number of Chinese students studying in France exceeded 43,000 in 2023，more than twice the figure recorded just over a decade ago. The demand extends beyond education: with China's growing engagement in Africa, where French is widely spoken, there's also an increasing need for French-speaking talent in international business and infrastructure projects. In response to these developments, recent academic discussions such as the 2024 seminar on "Protection, Reform, and Innovation of the French Discipline" have stressed the importance of not only updating the French curriculum but also maintaining high standards in language instruction. As Chinese universities work to keep up with these changing needs, improving the quality of French teaching and learning, along with rethinking how these programs are managed, has become more important than ever.

Although there has been a clear surge in the number of French language programs and learners in China, there is still relatively limited research focused on how to effectively manage and improve the

quality of French teaching and learning in these programs. Most existing studies tend to take a policy-driven or market-oriented approach, often looking at broader social or economic factors. What seems to be missing is a closer look at the actual needs and experiences of those most directly involved, namely" teachers and students". In particular, very few studies have examined how management models can be shaped by these needs to create more responsive, effective, and sustainable French language education.

This study aims to fill that gap by developing a management model that can enhance the quality of French teaching and learning in Chinese universities. Using the Priority Needs Index (PNI) as a tool for needs assessment, the research focuses on five key areas: curriculum, teachers, teaching materials, evaluation systems, and learning practices. By identifying the most urgent needs from both student and teacher perspectives, the study seeks to offer practical, evidence-based recommendations that can support better management and ultimately improve the outcomes of French language education in China.

Two purposes of this study were: (1) To assess the needs of students and teachers towards French teaching and learning of a university in Guangxi, China. (2) To develop the French teaching and learning management model of this university. And the implication of the Study is to find management model that can improve the quality of French teaching and learning, and then extend it to other universities in order to cultivate more French talents in social demand.

2. Literature Review and Conceptual Framework

Enhancing the quality of French teaching and learning has become an increasingly important topic, especially in the context of higher education in non-Francophone countries like China. While there's been significant discussion around curriculum reform and language policy from a societal or macro perspective, much less attention has been given to what teachers and students actually need on the ground. This study takes a different route by focusing on the needs of both teachers and students as the starting point for developing a management model that can truly improve the quality of French language education.

A central concept in this research is Needs Assessment, which is commonly defined as a structured, evaluative process used to identify the root causes of performance gaps or systemic issues. As Panadda [2] explains, needs assessment is critical for setting clear strategic directions and making sure organizational efforts align with real demands. In the context of education, especially language teaching, understanding these needs can help tailor curricula, teacher development, and evaluation systems to fit the learners' and educators' realities. However, such need-based approaches remain underused in the field of foreign language teaching, which often leans more toward top-down or policy-driven methods.

This study applies the Priority Needs Index (PNI) as a tool to systematically identify the most pressing needs across five key dimensions of teaching and learning: curriculum, teacher, teaching materials, evaluation systems, and learning practice. While PNI has been applied in various educational contexts, its use in foreign language education has been limited, especially in French teaching. This research therefore fills an important gap by using PNI to help design a management model grounded in the actual needs of those directly involved in the teaching and learning process.

The theoretical framework is also informed by the "two-way" construction of practice and theory, which highlights the dynamic, back-and-forth relationship between what happens in the classroom and the theoretical models that seek to explain or guide it. Although the term itself is more recent, the idea can be loosely traced back to linguistic pioneers like [3] who emphasized structured methods in language analysis and instruction. In modern educational research, this two-way approach suggests that good theory should inform practice, and that practical outcomes should also feed back into refining theory.

When it comes to defining teaching and learning quality, this study draws on the work of the China Talent Development Committee [4] which sees quality not just as the delivery of content, but also as the teacher's ability to engage, motivate, and guide students toward concrete learning outcomes. In French education specifically, this includes developing students' proficiency in listening, speaking,

reading, and writing, which require not only just curriculum plans and teaching materials, but also a good management model that supports consistent progress.

The concept of teaching and learning management itself is grounded in both educational and organizational theory. Xiang [5] highlights how management principles such as planning, coordination, and quality control apply directly to educational settings. Scholars like Mintzberg [6] offer further insight into how management models function in dynamic, real-world settings, stressing that effective management is adaptive and multidimensional. In the education field, Hattie [7] and Charlotte Danielson have emphasized the importance of instructional leadership and structured teaching frameworks. Their work highlights that teaching and learning quality is a key factor in student success and that well-designed management model can help enhance teaching and learning quality.

Taken together, the literature shows that while many studies have explored ways to improve French education through policy changes or curriculum design, few have focused on integrated management models based on the real needs of those involved. This study aims to bridge that gap by using needs assessment (PNI) to inform a practical and adaptable model that enhances the overall quality of French teaching and learning, especially in the Chinese university context.

The Conceptual Framework was developed based on the above analysis of existing related research by the researcher, and in view of the establishment of French undergraduate teaching and learning system in Chinese universities during these years. This study is based on the understanding of core concepts , the "needs assessment" theory [2] and the "two-way" construction of practice and theory [3].
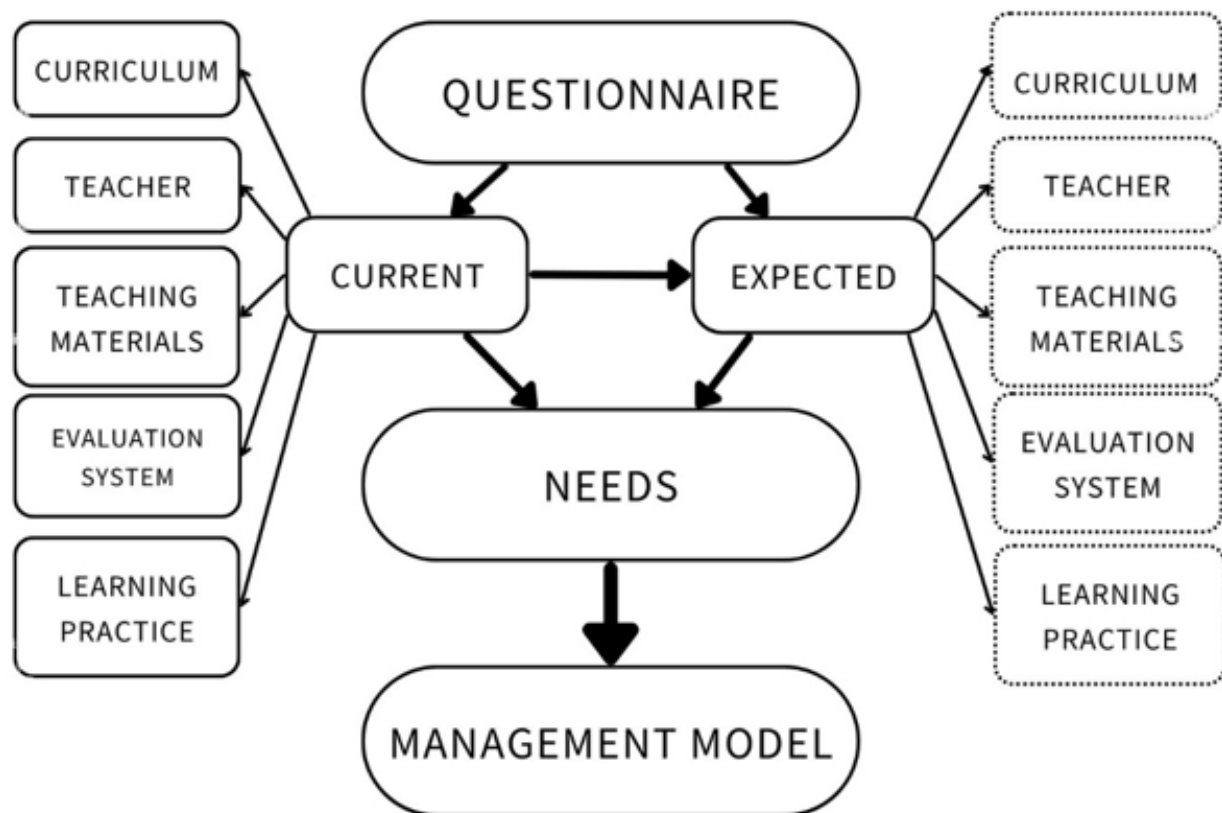
The analysis framework is designed as follows：

Figure 1.
The Conceptual Framework (Developed with Needs assessment theory & "Two-way" construction of practice and theory).

3. Methodology

For could be answer the research questions of this study, the researcher employed quantitative approaches, which is procedures for collecting and analyzing data. Data was collected respectively with questionnaires at a university in Guangxi, China.

3.1. Population and Sample

The researcher used the Yamane [8] formula to identify samples from the population to minimize the sample size for this study. The researcher used the formula provided by Yamane [8] to calculate the sample size with a confidence level of 95%, P= 0.05. Therefore, the sample size yielded by the formula was 141 french majors. In this study, the researcher collected data with 166 french majors students and teachers.

3.2. Research Instruments

Drawing on the results of a content analysis, the researcher designed a structured questionnaire to evaluate both the current status and anticipated expectations concerning the quality of French teaching and learning at a university in Guangxi. The instrument comprised two main sections: one collecting demographic data, and the other focusing on perceptions of the present conditions and future expectations related to key components of French language education. The questionnaire included a total of 33 items distributed across five dimensions: curriculum (6 items), teacher (8 items), teaching materials (7 items), evaluation systems (6 items), and learning practices (6 items). A five-point Likert scale was employed, ranging from 1 (least important) to 5 (most important).

Before administering the questionnaire to the full sample, a pilot test was conducted with a randomly selected group of 30 participants to evaluate the instrument's reliability using Cronbach's Alpha. A reliability coefficient of 0.70 or above was considered acceptable, indicating that the questionnaire was both reliable and appropriate for subsequent data collection, when the reliability ≥ 0.9 represents Excellent; 0.8 - 0.9 represents Good; 0.7-0.8 represents Acceptable; 0.6-0.7 represents Questionable; <0.6 represents Poor; < 0.5 was considered Unacceptable. The reliability test results are presented as follows: the results showed strong internal consistency across all five variables. Specifically, the Curriculum section had an alpha of 0.927, which is considered excellent. The Teacher section scored 0.889, and the Evaluation System scored 0.895, both falling into the good range. The Teaching Materials section also demonstrated excellent reliability, with a coefficient of 0.913. Lastly, Learning Practice came in at 0.878, again within the good range. These results suggest that the instrument is both consistent and reliable for assessing the five dimensions under study.

3.3. Data Analysis

To analyze the data from the questionnaire, the demographic information of 166 respondents was examined. Descriptive statistical methods, including frequency, percentage, mean, and standard deviation, were applied using the SPSS software. The ranking of needs for each component of French teaching and learning quality was determined using the Modified Priority Needs Index (PNIModified).

4. Results

The result of the first research objective: To assess the needs of students and teachers towards French teaching and learning of a university in Guangxi, China.

The result of the priority needs for enhancing the quality of French teaching and learning of a university in Guangxi revealed as follows , where in *table 1, table 2 and table 3, PNIModified = (I-D)/D :*

Table 1.
Overall priority need index (PNIModified) of five variables of students and teachers on French teaching and learning.

Variables	Students				Teachers			
	Current Conditions (D) Mean	Expected Condition (I) Mean	PNI Modified	PNI Rank	Current Condition (D) Mean	Expected Conditions (I) Mean	PNI Modified	PNI Rank
Curriculum	3.130	4.146	0.325	1	3.50	4.667	0.333	1
Learning Practice	3.330	4.265	0.281	2	4.050	4.550	0.123	5
Teacher	3.670	4.545	0.238	3	3.812	4.338	0.138	4
Teaching Materials	3.418	4.141	0.212	4	3.950	4.529	0.147	3
Evaluation System	3.415	4.135	0.210	5	3.80	4.567	0.202	2

As presented in Table 1, students perceive the current importance of the Teacher variable as high, while Curriculum, Learning Practice, Teaching Materials, and the Evaluation System are considered moderately important. In contrast, their expectations place the Teacher variable at the highest level of importance, with the other four variables rated as highly important. For teachers, all variables are currently regarded as highly important. However, while the Teacher variable remains highly important in their expectations, all other variables are considered of the highest importance. Based on the Priority Needs Index (PNIModified) results, Curriculum ranked first among both students and teachers, with PNIModified values of 0.325 and 0.333, respectively.

Table 2.
Results of top 3 quantitative data analysis of each item – Students.

Variables	Current Conditions (D) Mean	Expected Conditions (I) Mean	PNI Modified	PNI Rank
Q1. Curriculum: French courses are practical	2.825	4.512	0.597	1
Q2. Curriculum: The setting of the French course is reasonable	3.064	4.294	0.402	2
Q5. Curriculum: Amount of hours in practical courses	3.141	4.044	0.290	3
Q29. Learning Practice: Learning practice is very helpful for students' future work	3.179	4.544	0.356	1
Q31. Learning Practice: The practice base can provide jobs related to the majors studied	3.346	4.538	0.356	1
Q32. Learning Practice: The content of learning practice is consistent with the majors studied	3.365	4.467	0.327	3
Q11. Teacher: French teachers should upgrade their academic qualifications	3.357	4.557	0.357	1
Q10. Teacher: French teachers should go to regular training	3.256	4.371	0.342	2
Q13.Teacher: The scientific research ability of the French teachers	3.455	4.589	0.325	3
Q16. Teaching Materials: The content in the textbook is very helpful to the students' future work and life	3.012	4.512	0.498	1
Q20. Teaching Materials: Frequency of use of French e-textbooks	3.096	4.00	0.292	2
Q18. Teaching Materials: Moderate level of difficulty of French teaching materials	3.378	4.089	0.210	3
Q27. Evaluation System: The effect of management evaluation system in teaching and learning quality	3.391	4.288	0.265	1
Q24. Evaluation System: Reasonableness of how university assess teachers	3.352	4.217	0.258	2
Q26. Evaluation System: The university's evaluation system plays a supervisory role for teachers and students	3.403	4.192	0.232	3

As presented in Table 2, the quantitative data analysis of curriculum-related items shows that students ranked Q1 highest (PNIModified = 0.597), indicating that "French courses are practical." For Learning Practice, Q29 and Q31 shared the highest rank (PNIModified = 0.356), with Q29 stating that "Learning Practice is very helpful for students' future work" and Q31 stating that "The practice base can provide jobs related to the majors studied." In the Teacher category, Q11 ranked highest (PNIModified = 0.357), emphasizing that "French teachers should upgrade their academic qualifications." Within Teaching Materials, Q16 had the highest rank (PNIModified = 0.498), highlighting that "The content in the textbook is very helpful to students' future work and life." Lastly, for the Evaluation System, Q27 ranked highest (PNIModified = 0.265), referring to "The effect of the management evaluation system on teaching and learning quality."

Table 3.
Results of top 3 quantitative data analysis of each item – Teachers.

Variables	Current Conditions (D) Mean	Expected Conditions (I) Mean	PNI Modified	PNI Rank
Q2. Curriculum: The setting of French courses is reasonable	3.10	4.80	0.548	1
Q1. Curriculum: French courses are practical	3.20	4.70	0.469	2
Q3. Curriculum: Reasonable hours for French courses	3.30	4.70	0.424	3
Q24. Evaluation System: Reasonableness of how university assess teachers	3.30	4.70	0.424	1
Q22. Evaluation System: Reasonable of how university assess French curriculum	3.40	4.50	0.324	2
Q26. Evaluation System: The university's evaluation system plays a supervisory role for teachers and students	3.80	4.60	0.211	3
Q20. Teaching Materials: Frequency of use of e-textbooks	3.40	4.10	0.355	1
Q16. Teaching Materials: The content in the textbook is very helpful to the students' future work and life	4.00	4.80	0.20	2
Q18. Teaching Materials: Moderate level of difficulty of French teaching materials	3.90	4.60	0.179	3
Q11. Teacher: French teachers should upgrade their academic qualifications	3.20	4.40	0.375	1
Q14. Teacher: The effect of Teachers' Management on teaching and learning quality	3.40	4.30	0.265	2
Q10. Teacher: French teachers should go to regular training	3.20	4.00	0.250	3
Q32. Learning Practice: The content of learning practice is consistent with the majors studied	4.10	4.80	0.171	1
Q28. Learning Practice: The university attaches great importance to learning practice	3.80	4.40	0.157	2
Q29. Learning Practice: Learning practice is very helpful for students' future work	4.10	4.60	0.122	3

As presented in Table 3, the quantitative data analysis for teachers indicates that within the curriculum category, Q2 ranked highest (PNIModified = 0.548), stating that "The setting of French courses is reasonable." In the Evaluation System category, Q24 ranked highest (PNIModified = 0.424), referring to the "Reasonableness of how the university assesses teachers." For Teaching Materials, Q20 had the highest rank (PNIModified = 0.355), highlighting the "Frequency of use of e-textbooks." In the Teacher category, Q11 ranked highest (PNIModified = 0.375), emphasizing that "French teachers should upgrade their academic qualifications." Lastly, within Learning Practice, Q32 ranked highest (PNIModified = 0.171), indicating that "The content of learning practice is consistent with the majors studied."

Table 4.
Top 3 Priority Needs of each Variable on French Teaching and Learning.

Variables	Top 3 Priority Needs
Curriculum	1. Need to make the courses more practical, so that students can apply what they have learned to their future life and work 2. Need to make the curriculum more reasonable, 3. Need to adjust the hours in practical courses so that students have more time for learning practice
Learning Practice	1. Need to have more helpful learning practice for students 2. Need to provide students with jobs related to their majors 3. Need to optimize the practice base and find some practice bases that can provide students with major-related practice bases
Teacher	1. Need to upgrade the French teachers' academic qualification 2. Need to have regular training for French teachers 3. Need to improve the scientific ability of French teachers
Teaching Materials	1. Need to make the teaching materials more helpful to students' future life and work 2. Need to use more e-textbooks in this digital age 3. Need to choose some simple and easy-to-understand teaching materials
Evaluation System	1. Need to adjust the evaluation system in time, because according to the research results, the evaluation system has a great effect on the quality of teaching and learning 2. Need to make the university's evaluation system more reasonable 3. Need to make the evaluation system to assess the teachers and the students in a fair, open and accurate way as it plays a supervisory role

Table 4 presents the prioritized needs of five variables: curriculum, learning practice, teacher, teaching materials, and evaluation system. Based on the research findings, the needs of each variable are ranked in order of priority.

The result of the second research objective: To develop the French teaching and learning management model of a university in Guangxi, China.

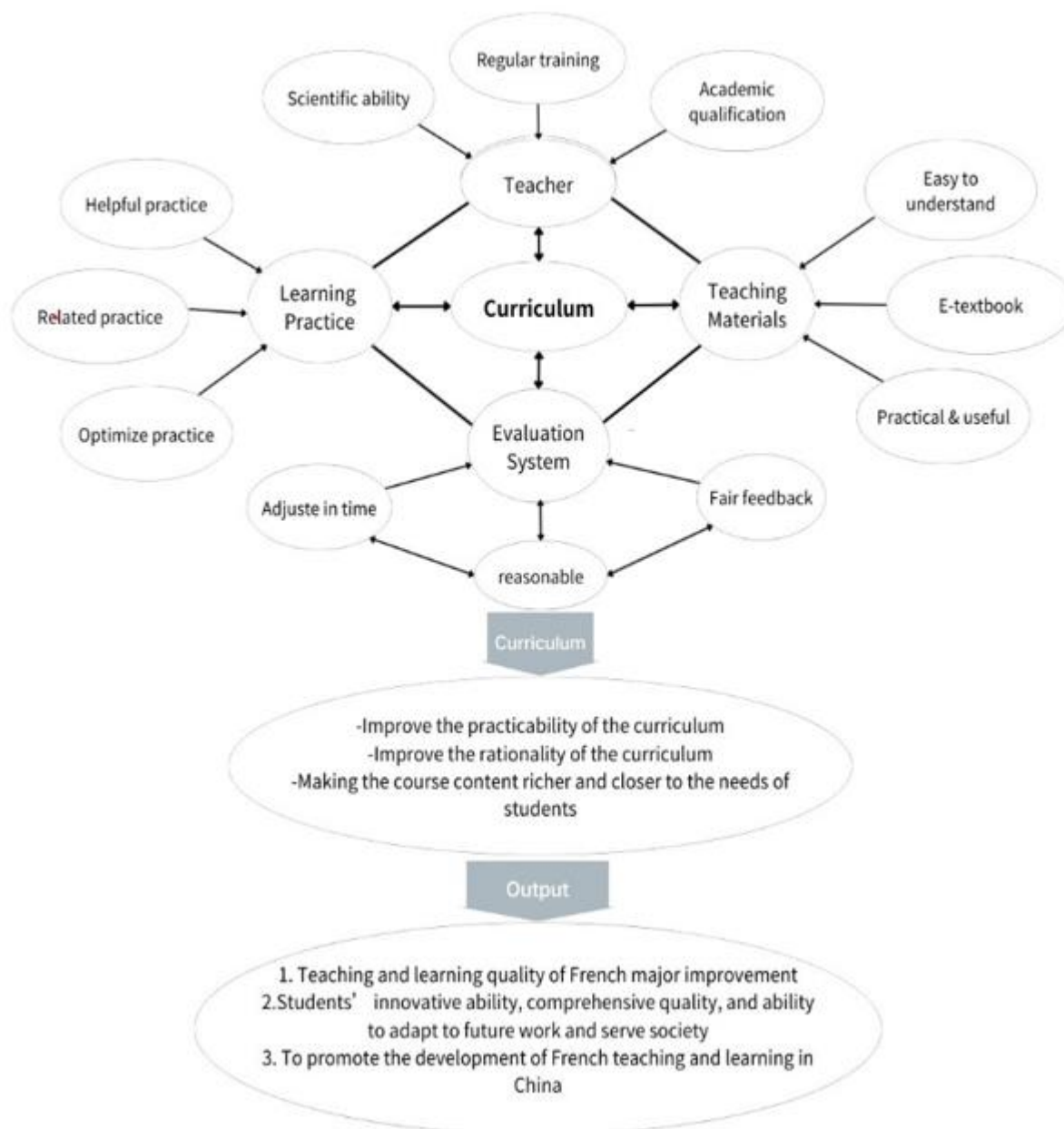The management model of French teaching and learning was developed as follow:

Figure 2.
Development of French teaching and learning management model.

Following a comprehensive review and a thorough analysis of the needs of both students and teachers, the researcher developed a management model tailored to the context of this university. Figure2 shows the management model developed by the researcher for this university.

According to the research results, the university should take the curriculum as the core demand, because this variable is pointed out to be the priority demand of both students and teachers. Therefore, the researcher suggests this university should focus on the management of the curriculum needs, and carry out the management of learning practice, teacher, teaching materials and evaluation system at the

same time. The expected demand for this model is in the hope that this management model will eventually improve the quality of French teaching and learning and achieve the desired output.

To effectively identify the needs and objectives for enhancing teaching and learning management, the researcher suggests that the university consider and apply the findings of this study, with particular emphasis on the top three prioritized needs derived from the PNI model. This approach will help ensure that the management model is aligned with the broader needs of the university, including those of both students and teachers.

Table 5.
Comparison of quantitative results for five variables between students and teachers.

Students' Quantitative Results			Teachers' Quantitative Results		
PNI Rank	Variables	PNI Modified	PNI Rank	Variables	PNI Modified
1	Curriculum	0.325	1	Curriculum	0.333
2	Learning Practice	0.281	2	Evaluation System	0.202
3	Teacher	0.238	3	Teaching Materials	0.147
4	Teaching Materials	0.212	4	Teacher	0.138
5	Evaluation System	0.211	5	Learning practice	0.123

5. Discussion

Discussion on the Current and Expected Quality of French Teaching and Learning The findings in Table 1 indicate that curriculum ranks as the most important factor for both students and teachers. For students, curriculum holds the highest priority, with a PNIModified value of 0.325, while for teachers, it also ranks first with a PNIModified value of 0.333. These results suggest two key explanations. First, both groups place the greatest demand on curriculum quality. Second, improving curriculum quality is the most urgent need. Overall, curriculum is regarded as the central factor in enhancing teaching quality. Widdowson [9] defines needs as the learner's requirements for either current learning or future work, emphasizing what they must achieve by the end of a language course. This perspective aligns with the study's findings, as both students and teachers view curriculum as the most critical and urgent factor in teaching quality. Based on the PNI results, improving curriculum quality is fundamental to enhancing overall teaching and learning outcomes.

Discussion on developing a Model to Enhance the French teaching and learning quality: According to the variable of Curriculum, the most remarkable point is that both the students and the teachers, they all prioritize the variable of curriculum first. Therefore, it can be clearly seen that the curriculum is the core of teaching. Based on the variables of this study and Qu [10] view of curriculum development as a systematic process, including curriculum objectives, students' needs and interests, social needs and effectiveness evaluation, the researcher developed this management model. This management model is centered on the curriculum, and four variables interact with the curriculum: teacher, teaching materials, learning practice and evaluation system. According to the research results, the model diagram gives the 3 most important factors affecting each variable, that is, the top three factors in PNI. These factors affect each variable, and these variables ultimately affect the quality of the curriculum. The improvement of teaching quality ultimately depends on whether the curriculum and output can be evaluated by the evaluation system. Since the model serves as a guideline for enhancing French teaching and learning at the university, it highlights only the priority areas for improvement, while other aspects remain part of the university's ongoing development efforts.

6. Conclusion and Recommendations

In conclusion, a model for enhancing the the French teaching and learning quality encompasses five variables: curriculum, learning practice, teacher, teaching materials and evaluation system.

In the 21st century, trade between China and France has become increasingly frequent, creating a growing demand for skilled French-speaking professionals. High-quality education is essential for cultivating outstanding French language talent, and the excellence of teaching quality depends on the

effectiveness of the management model. This study aims to generalize the research findings to other universities in China. Before broader implementation, the model was applied to the French department of a university in Guangxi to test its feasibility and effectiveness. During the implementation, data was collected on challenges encountered, outcomes achieved, and feedback from stakeholders to identify areas for improvement. Based on the feedback and pilot results, the model will be refined before full implementation. Subsequently, a phased promotion plan will be developed: first, extending the model to other universities within Guangxi Province, incorporating feedback from multiple institutions in Guangxi to further enhance the management model, and then promoting this refined management model to other universities across China.

Even though this study was structurally designed, there were still some issues that need to be considered for the continuity of the study: (1) The current study only studied a public university. Future studies should consider a larger sample size to acquire higher reliability and better understand the current research topic. (2) Future researches could study in more details of several factors in this study on teaching and learning quality from an academic point of view, and how to reduce these impact indexes to improve French teaching and learning quality.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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