Investigating the Relationship Between Parents' Satisfaction and Teaching Quality in Mandarin Courses of International Schools, Bangkok

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Abstract

This article aims to optimize the teaching quality of Mandarin courses by constructing a conceptual model of "teaching quality-student learning experience-parent satisfaction". The quality of teaching is divided into four indicator elements, namely curriculum design, interactive teaching methods, integrating intercultural content and the use of technology in education. A parent's satisfaction questionnaire was designed to measure the quality of teaching in Mandarin courses based on parents' satisfaction with students' learning experience. Four hundred parents from several international schools in the Bangkok Metropolitan area participated in this study. SPSS 2.9 software was used to analyze the reliability and validity of the survey data. Through correlation and multiple regression analysis, it can be seen that curriculum design, interactive teaching methods, integrating intercultural content and the use of technology are significantly and "positively" related to the "teaching quality" of Mandarin courses, and are important factors affecting parents' satisfaction. It is hoped that this study's results can help more Mandarin teachers improve their teaching abilities to improve students' learning outcomes and parents' satisfaction.

Keywords: students' learning outcome, parents' satisfaction, curriculum design, interactive teaching, integrating intercultural content, internet technology education, international schools Bangkok

Introduction

This study explores the relationship between parents' satisfaction and their perception of teaching quality in Mandarin courses. The research focuses on how teaching quality impacts parents' satisfaction within the specific context of learning Chinese as a second language. Understanding this relationship is crucial, given the significant role language plays in cultural exchange, global communication, and economic opportunities. The study aims to provide insights into how teaching strategies— such as Internet-enhanced education, educational technology, teacher effectiveness, and curriculum design— foster a positive learning environment. This, in turn, enhances students' linguistic competencies and cultural understanding, with the ultimate goal of satisfying parents.

Chinese is a growing global language. China's global status, both economically and culturally, has made the Chinese language take an important position in the world. As one of the six official languages used by the United Nations, more and more schools around the world are offering Chinese courses to meet the needs of global communication and cultural exchange. International schools these days have become increasingly popular due to their focus on global education and proficiency in languages like English. These schools typically offer English-based curricula and encourage multilingualism from an early age (Kim & Mobrand, 2019; Namraksa & Kraiwanit,

2023). The quality of teaching and the effectiveness of learning are closely related.

In the context of global education, the teaching and learning of Chinese as a second language have garnered increasing attention, paralleled by China's significant economic growth and the expanding influence of Chinese culture worldwide (Huang & Liao, 2002). The Mandarin Chinese group is the largest group, with around 900 million native speakers (Lewis，2015). Mandarin Chinese is also the official language of Hong Kong, Macau, Taiwan and Singapore, and a portion of the population in 21 other countries speaks Chinese as their mother tongue. Many international schools, primary and secondary schools, and universities in Thailand offer Chinese courses. Chirapanda Sato2023）argued that most parents had children enrolled in schools offering the British Curriculum (52%), at the middle school level (44.4%). Additionally, most preferred schools focus on the Chinese language for their children's education (55.4%) in Bangkok.

The quality of Mandarin teaching in international schools is important because it has a significant impact on students' learning interests and learning outcomes. High-quality teaching can improve students' learning experience and promote parents' trust and satisfaction in educational institutions, which indirectly affects the enrollment rate, overall reputation, competitive positioning and long-term sustainability of these educational institutions. Teaching quality affects parents' satisfaction with

educational institutions. To illustrate these key factors, and to address the lack of data regarding Mandarin teaching in particular, the scope of the research focuses on international schools offering Chinese courses. This study fills this gap by evaluating the relationship between teaching quality and parents' satisfaction through their perception of teaching quality of Mandarin courses of international schools in the Bangkok Metropolitan area in Thailand.

Significance of parents' satisfaction

Parents' satisfaction has become a vital component of educational quality assurance. It is closely tied to a school's success, as satisfied parents contribute to a positive reputation and higher student enrollment. Schools are continually seeking ways to enhance parents' satisfaction, recognizing that it reflects on their overall educational quality. Parents' and students' satisfaction has personal, scholastic, and social implications. Satisfied students are more likely to continue learning and achieve academic success, which further enhances parent satisfaction, ultimately benefiting the school's reputation and financial stability.

Research objectives

This research aims to identify key elements that contribute to effective teaching practices in Mandarin education, with a specific focus on international schools. By examining parents' satisfaction through their perception of teaching quality, the study seeks to inform curriculum development, teacher training, and pedagogical approaches. The objectives include evaluating the impact of curriculum design, interactive teaching methods, the integration of intercultural content, and the use of technology on parents' perceptions of teaching quality. The study also aims to assess how these perceptions influence overall parental satisfaction.

Research questions

The study will address the following questions:
1. How does curriculum design impact parents' perception of teaching quality in Mandarin courses?
2. What effect does interactive teaching have on parents' perception of teaching quality?
3. How does integrating intercultural content influence parents' perception of teaching quality?
4. To what extent does utilizing technology enhance parents' perception of teaching quality?
5. How does parents' perception of teaching quality affect their overall satisfaction with Mandarin courses?

Literature review

Curriculum design

Several theoretical frameworks have been employed to assess students' satisfaction

in learning Mandarin courses. According to Chittithaworn (2009), the factors that affect students' satisfaction in learning courses it related between students expectation and course design. With the clarity design of the course contents, material and instructor can be lead to the higher level of student's satisfaction. According Macalister (2019) Language Curriculum Design emphasizes the importance of aligning the curriculum design of language courses with the current needs of students. He argued that there is a wide range of factors to consider when designing a course. These include the learners' present knowledge and deficits, the resources available including time, the skill of the teachers, the curriculum designer's strengths and limitations, and the principles of teaching and learning.

Interactive teaching

Swan (2001) reported that certain factors, such as interaction with instructors, active discussion among course participants, and clarity of course design significantly influenced students' learning. According to Swan (2006), well-prepared course material, interaction with instructors, and active discussion among course participants significantly influenced student's satisfaction and perceived learning. (as cited in Chittithaworn, 2009). Young and Norgard (2006) also confirmed the importance of these three types of interactions for students' satisfaction; timely and quality interaction among students and between student and their

lecturer, and finally between students and their course content. According to Staron (2008), competencies are the skills required in the job that can be measured. Lecturers' competencies are powerful when they are used as the students' performance will be affected.

Integrating intercultural content

Byram and Zarate (1996), among many scholars attempting to define the term of intercultural communicative competence (ICC), pointed out that ICC is an umbrella term that covers many components including linguistic competence, sociolinguistic competence, discourse competence, and ICC. They further explain that the term ICC is the ability which enables one to interact in a foreign language effectively and appropriately with people from different cultures.

Based on different definitions, Lázár (2007), an international team of experts involved in carrying out projects within the framework of the European Centre for Modern Languages, defined ICC as "the ability to communicate effectively in cross-cultural situations and to relate appropriately in a variety of cultural contexts" (p. 5), which is used as a guideline for language teachers and teacher educators. According to Gong (2018) the language teacher's task is to develop in their students the knowledge, skills and attitudes that will help them interact with interlocutors coming from different cultural, linguistic and national backgrounds. Therefore, a thorough

understanding of the role of intercultural communicative competence (ICC) and the expertise on how it should be developed in a classroom have become essential attributes of an L2 teacher.

Utilizing technology

Mohamed and Wei (2017) argued that the advancement in technology has allowed the educators to be more creative and therefore more efficient and effective teaching online or offline. Technology has helped to enhance classroom activities, motivate students, and engage them in classroom activities. Kung and Chuo (2002) affirmed that students consider the Internet a useful tool to supplement in-class instruction. Paulsen (2001) argued that the significant online presence of language education, showcasing the emergence of sophisticated Web-based research tools, methods, online dictionaries, and digital resources, along with the advancement of cutting-edge multimedia technologies that support intercultural communication and cooperation. It provides examples of these trends, illustrating how the integration of technology in language teaching is leading to a rejuvenated and more efficient educational approach. Zhou

(2020) concluded that it is necessary to investigate the relationship between mobile phone use and Chinese as second language activity design in order to provide effective mobile-integrated teaching tasks and to pay more attention to improving teachers' awareness and ability concerning mobile assisted instruction.

Conceptual model

In this paper, the conceptual framework adapted the previous researcher framework of Gao and Chang (2021) and that of Gee (2018) in order to develop a new framework to explore the relationship between parents' satisfaction and teaching quality in Mandarin courses. The independent variables included curriculum design, interactive teaching, integrating intercultural content, utilizing technology and perception of teaching quality. The dependent variable was parents' satisfaction. The purpose is to demonstrate the impact of the parents' perception of teaching quality and parents' satisfaction in Mandarin courses. Thus, the conceptual framework of this paper was drawn as follows:
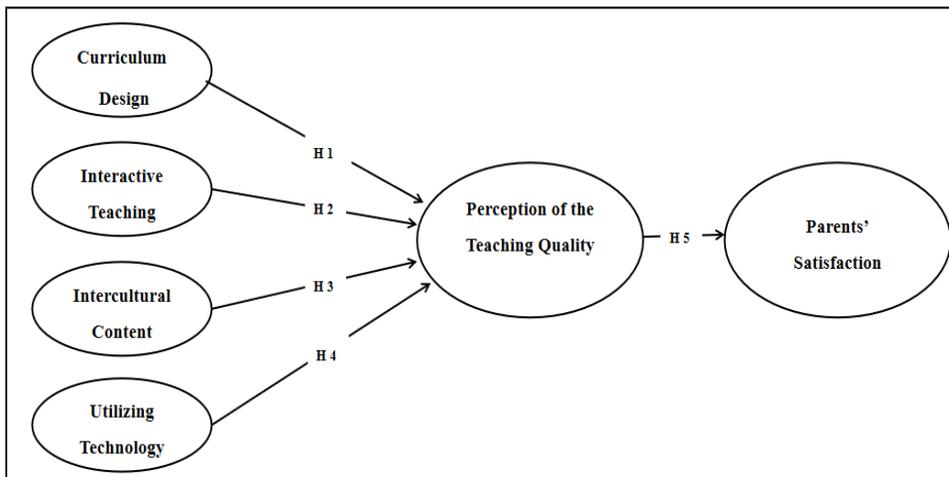
Figure 1 Chinese as Second Language Teaching Quality
Perception of Teaching Quality－Parents' Satisfaction Framework

Research hypotheses

This research takes international schools' Mandarin Chinese course as an example to study the relationship between the teaching quality of these Mandarin courses and the parents' satisfaction through their perception of teaching quality. This study puts forward the following research hypotheses, taking into account the relevant research background and the specific practice of Mandarin teaching.

H1 Curriculum design has positive impact on parents' perception of teaching quality;

H2 Interactive teaching has positive impact on parents' perception of teaching quality;

H3 Integrating intercultural content has positive impact on parents' perception of teaching quality;

H4 Utilizing technology has positive impact on parents' perception of teaching quality;

H5 Parents' perception of teaching quality has positive impact on their satisfaction.

Methodology

Research design

This section outlines the research sample design and data collection process for investigating the relationship between parents' satisfaction and their perception of teaching quality in Mandarin courses at international schools in Bangkok. The study used quantitative methods, collecting data from 400 parents via online questionnaires through convenience sampling. Descriptive and multiple regression analyses were performed using SPSS Version 29.0 to test hypotheses related to teaching quality and

satisfaction. The questionnaire comprised three sections: demographic information, independent variables (curriculum design, interactive teaching, intercultural content, technology use), and parents' satisfaction, utilizing a Likert scale to assess perceptions of teaching quality and its impact on satisfaction.

Research tools

The data collection tools of this paper through an online questionnaire survey website which is WENJUANXING professional online questionnaire distribution channel to collect data. The questionnaire comprised the statements created requesting parents to measure their perception of teaching quality of the Mandarin course through a five-point Likert scale ranging from very dissatisfied to very satisfied (5 levels). See Tables 1 and 2 below.

Table 1 Demographic

Dimensions	Items	Options
Gender	1. What is your gender?	☐ Male
		☐ Female
Age	2. How old are you?	☐ Under 35
		☐ 36-40
		☐ 41-45
		☐ 46-50
		☐ Above 50
Grade of the Child	3. What grade is your child in?	☐ Grade 1-6
		☐ Grade 7-9
		☐ Grade 10-12
Educational Level	4. What is your educational level?	☐ Lower than undergraduate
		☐ Undergraduate
		☐ Postgraduate education
		☐ Other

Table 2 Questionnaire Construction

Dimensions	Statements	References
Curriculum Design	CD1: Objectives of the course curriculum aligned to its content CD2: Learning styles are considered when designing course strategies CD3: Teach Chinese adapted to students' Chinese proficiency levels	Mollah & Kim (2015) Nguyen (2021) Shishavan (2009)
Interactive Teaching	IT1: Provide opportunities to use Chinese through meaningful tasks and activities IT2: Provide activities that arouse students' interest in learning Chinese IT3: Teacher interacts well with students	Shishavan (2009) Özçınar (2011)
Intercultural Content	IC1: Teacher knows Chinese culture well. IC2: Teacher teaches not only language but also its culture IC3: Teacher gives importance to teaching language with its culture	Shishavan (2009) Özçınar (2011)
Utilizing Technology	UT1: Techniques used by the teachers are good enough to teach the course UT2: Use of multimedia in teaching (e.g., use of overhead projector, PowerPoint presentations) UT3: Be up-to-date (e.g., using internet and recent technologies in teaching)	Mollah & Kim (2015) Nguyen (2021) Shishavan (2009)
Teaching Quality	TQ1: Professional educational ability TQ2: Professional teaching ability TQ3: Professional educational spirit and attitude	Ko, & Chung, (2014)
Parents' Satisfaction	PS1: I am satisfied with the decision to choose this course PS2: I am satisfied with the teaching quality of this course PS3: I am satisfied with instructional planning of this course	Nguyen (2021) Ko, & Chung, (2014)

Population and sample

In this research, the population comprised 400 parents selected through a purposive sampling method; these 400 parents completed and returned the questionnaire in May of 2024. The names of the schools have been withheld for the purpose of confidentiality. Examination of student satisfaction occurred through the factors of parents' feedback teaching quality, including mandarin curriculum design interactive teaching integrating intercultural content and utilizing technology of education.

The numbers of sample size of this study were based on previous research that introduced the formula for calculating the simple size recommend by Cochran (1953) to use in this study as follows:

$$n = \frac{Z^2 \, pq}{e^2} \quad (1)$$

Where:

n = Number of population unit

p = Proportion estimated of the population that researcher require

e = desired level of precision (i.e. the margin of error)

q = 1-p

Z = Contain value under the normal curve found in statistical tables

The population registered for the Mandarin course is unknown how many exactly. So assume if p is at 5% with 95% confidence, Z value would be 1.5 at 95% confidence level. The calculation as follow:

$$n = 0.5*0.5*(1.96)^2 / (0.05)^2$$
$$n = 384.16$$
$$n \approx 400$$

Thus, the sample size will be approximate to 400 respondents from the result.

Data Collection

The study targeted parents with children in Grades 1-12 at international schools that offer Mandarin courses. Wenjuanxing allowed for broad distribution within a defined geographical area (Bangkok), and respondents were drawn from various schools within this region. The inclusion of multiple schools ensured that the sample was representative of the larger population of international school parents.

Data Measurement and analysis

The five-point Likert scale has been widely applied on present research. This study will also apply this five-point Likert scale to measure the agreement level of curriculum design, interactive teaching, intercultural content, utilizing technology and satisfaction by using the following formula:

N (Width of range) = (Maximum–Minimum）/ Level (2)
$$= (5–1) / 5$$
$$= 0.8 \text{ each}$$

Based on the calculation above, the arrangement of the scores is as follows:
1.00–1.80 are considered as Strongly disagree
1.81–2.60 are considered as Disagree
2.61–3.40 are considered as Neutral
3.41–4.20 are considered as Agree
4.21–5.00 are considered as Strongly agree

This study uses descriptive statistical analysis to analyze the demographic data including gender, age, level of education, and the grade of the children. The variables including curriculum design, interactive teaching, intercultural content, utilizing technology, and parents' satisfaction will be analyzed by standard deviation after taking the reliability test. The five hypotheses will be examined by multiple regression analysis:

1) the relationship between curriculum design and parents' perception of teaching quality (**H1**);
2) the relationship between interactive teaching and parents' perception of teaching quality (**H2**);
3) the relationship between intercultural

content and parents' perception of teaching quality (**H3**);

4) the relationship between utilizing technology and parents' perception of teaching quality (**H4**);

5) the relationship between parents' perception of teaching quality and their satisfaction (**H5**).

Multiple regression analysis was used to test the hypotheses and determine the impact of the independent variables (curriculum design, interactive teaching, intercultural content, technology utilization) on the dependent variable (parents' perception of teaching quality). The results were interpreted to understand the relationships between variables and draw meaningful conclusions that align with the research objectives.

Results

Demographic characteristics

In this section, the author took the demographic data of the questionnaire by descriptive analysis. In this paper, the demographic data, considered holding variables, would not be included into factors that impact the dependent variables. Of the total of 445 questionnaire respondents collected through WENJUANXING professional online questionnaire distribute channel, there are 400 valid respondents after data

cleaning.

According the descriptive analysis of sample (Table 3), it is shown that the number of males was 153, 38.3% proportion from total 400 valid respondents, and the number of females was 247, 61.8% proportion from total 400 valid respondents. More female parents than male parents participated in surveys on the teaching quality of Mandarin courses as the sample data shown.

From the data analysis of age, there were 177 respondents of age under 35 group from total sample, accounting for 44.3%. The number of age 36-40 group was 86 respondents, that is, 21.5%. There were 83 respondents of age 41-45 group from total sample, accounting for 20.8%. The number of age 46-50 group was 37 respondents, which is 9.3%, and the number of age above 50 group was 17 respondents, accounting for 4.3%.

From the analysis of the grades studied by the children of the respondents in the total sample, it can be seen that the children of the respondents are in grades 1 to 6 of primary school, accounting for a larger proportion of the total number of respondents. There were 240 respondents whose children were in grades 1-6, accounting for 60% of the total sample. There were 107 respondents whose children were in grades 7-9, accounting for 26.8% of the total sample. There were 53 respondents whose children were in

grades 10-12, accounting for 13.3% of the total sample.

According to the analysis of educational level from the total sample, the respondents' educational level positioned more at undergraduate and postgraduate, representing a large proportion of total respondents. Level of lower than undergraduate has 41 respondents, that is, 10.3% of total sample. Level of undergraduate has 175 respondents,

representing 43.8% of total sample. Level of postgraduate has 153 respondents, representing 38.3% of total sample. And the level of other has 31 respondents, or 7.8% of total sample.

In summary, the respondent characteristics show a predominance of female participants, a majority under the age of 35, with children primarily in primary school grades, and a significant proportion holding undergraduate and postgraduate degrees.

Table 3 Descriptive analysis of demographics

Demographic	Items	Frequency	Percent (%)	Valid Percent (%)
Gender	Male	153	38.3	38.3
	Female	247	61.8	61.8
Age	Under 35	177	44.3	44.3
	36-40	86	21.5	21.5
	41-45	83	20.8	20.8
	46-50	37	9.3	9.3
	Above 50	17	4.3	4.3
Grade	G1-6	240	60	60
	G7-9	107	26.8	26.8
	G10-12	53	13.3	13.3
Education	Lower than undergraduate	41	10.3	10.3
	Undergraduate	175	43.8	43.8
	Postgraduate education	153	38.3	38.3
	Other	31	7.8	7.8
Total		**400**	**100**	**100**

Level of agreement analysis

Based on the data set of agreement level analysis, the dimension mean range was from 3.45 to 3.76, and the dimension standard deviation range was from 0.813 to 0.945. It was suggested that the data set exhibits normal reasonableness and discretion.

Results of each dimension

(1) Curriculum Design

The total mean of curriculum design dimension was 3.57, which was considered as agree (Table 4). For the statement items of this dimension, "Objectives of the course curriculum aligned to its content" (Mean = 3.61) is the highest value statement. "Learning styles are considered when designing course strategies" (Mean = 3.55) is the lowest value of this dimension. It is suggested that the respondents are more focused on the course curriculum's objectives aligned with the teaching content.

Table 4 Curriculum design level of agreement

Items	Statements	Mean	S.D	Level of agreement
CD1	Objectives of the course curriculum aligned to its content	3.61	0.827	Agree
CD2	Learning styles are considered when designing course strategies	3.55	0.830	Agree
CD3	Teach Chinese adapted to students' Chinese proficiency levels	3.56	0.830	Agree
	Total	**3.57**	**0.829**	**Agree**

(2) Interactive Teaching

The total mean of the interactive teaching dimension was 3.60, which was considered to agree (Table 5). For the statement items of this dimension, "Provide opportunities to use Chinese through meaningful tasks and activities" (Mean = 3.65) is the highest value, and "Teacher interacts well with students" (Mean = 3.57) is the lowest value. This suggested that the respondents thought they could experience a good perception of opportunities to use Chinese through meaningful tasks and activities.

Table 5 Interactive teaching level of agreement

Items	Statements	Mean	S.D	Level of agreement
IT1	Provide opportunities to use Chinese through meaningful tasks and activities	3.65	0.855	Agree
IT2	Provide activities that arouse students' interest in learning Chinese	3.58	0.855	Agree
IT3	Teacher interacts well with students	3.57	0.841	Agree
	Total	**3.60**	**0.850**	**Agree**

(3) Intercultural Content

The total mean of intercultural content dimension was 3.59, which was considered as agree (Table 6). For the statement items of this dimension, "Teacher gives importance to teaching language with its culture" (Mean = 3.63) is the highest value, and "Teacher knows Chinese culture well" (Mean = 3.53) is the lowest value. The respondents agree more for the teacher to attach importance to teaching language with its culture.

Table 6 Intercultural content level of agreement

Items	Statements	Mean	S.D	Level of agreement
IC1	Teacher knows Chinese culture well	3.53	0.928	Agree
IC2	Teacher teaches not only language but also its culture	3.61	0.839	Agree
IC3	Teacher gives importance to teaching language with its culture	3.63	0.909	Agree
	Total	**3.59**	**0.892**	**Agree**

(4) Utilizing Technology

The total mean of utilizing technology dimension was 3.58, which was considered as agree (Table 7). For the statement items of this dimension, "Use of multimedia in teaching (e.g., use of overhead projector, PowerPoint presentations)" (Mean = 3.63) is the highest value, and "Be up-to-date (e.g., using internet and recent technologies in teaching)" (Mean = 3.55) is the lowest value. It seems the respondents pay more attention to adopting multimedia by the teacher but do not upgrade to the latest version.

Table 7 Utilizing Technology Level of Agreement

Items	Statements	Mean	S.D	Level of agreement
UT1	Techniques used by the teachers are good enough to teach the course.	3.56	0.908	Agree
UT2	Use of multimedia in teaching (e.g., use of overhead projector, PowerPoint presentations)	3.63	0.906	Agree
UT3	Be up-to-date (e.g., using internet and recent technologies in teaching)	3.55	0.900	Agree
	Total	**3.58**	**0.905**	**Agree**

(5) Teaching Quality

The total mean of teaching quality dimension was 3.58, which was considered as agree (Table 8). For the statement items of this dimension, "Professional educational spirit and attitude" (Mean = 3.63) is the highest value, and "Professional educational ability" (Mean = 3.53) is the lowest value. This suggests that the respondents pay more attention to professional educational spirit and attitude.

Table 8 Teaching Quality Level of Agreement

Items	Statements	Mean	S.D	Level of agreement
TQ1	Professional educational ability	3.53	0.920	Agree
TQ2	Professional culinary ability	3.59	0.899	Agree
TQ3	Professional educational spirit and attitude	3.63	0.922	Agree
	Total	**3.58**	**0.914**	**Agree**

(6) Parents' Satisfaction

The total mean of parents' satisfaction dimension was 3.64, which was considered as agree (Table 9). For the statement items of this dimension, "I am satisfied with the teaching quality of this course" (Mean = 3.72) is the highest value, and "I am satisfied with instructional planning of this course" (Mean = 3.53) is the lowest value. It means most respondents agreed for summary satisfaction on teaching quality.

Table 9 Parents' Satisfaction Level of Agreement

Items	Statements	Mean	S.D	Level of agreement
PS1	I am satisfied with the decision to choose this course	3.68	0.827	Agree
PS2	I am satisfied with the teaching quality of this course	3.72	0.885	Agree
PS3	I am satisfied with instructional planning of this course	3.53	0.944	Agree
	Total	**3.64**	**0.885**	**Agree**

Summary of results

In summary, the analysis indicates that curriculum design, interactive teaching, intercultural content, and the use of technology significantly enhance teaching quality. Furthermore, teaching quality directly influences parents' satisfaction positively. However, it is also evident that adopting the latest educational technologies can further support teaching efforts, enhance students' perception of teaching quality, and consequently improve parents' satisfaction with Mandarin courses.

Hypotheses testing results

Hypotheses testing of teaching quality

Based on the hypotheses, the curriculum design, interactive teaching, intercultural content and utilizing technology all have positive effect on parents' perception of teaching quality. In this paper, SPSS statistics 29 tested whether the hypotheses were supported or rejected. Therefore, the multiple regression equation would be as follows:

$$Y1 = a + \beta1*X1 + \beta2*X2 + \beta3*X3 + \beta4*X4$$

In this equation, Y1 is dependent variable of teaching quality, X stand for independent variables (X1 is CD: curriculum design, X2 is IT: interactive teaching, X3 is IC: intercultural content, X4 is UT: utilizing technology), β stand for unstandardized coefficients beta. Thus, the final analysis result for 400 valid respondents of multiple regression by using SPSS statistics 29 as follows:

Table 10 Model Summary of CD, IT, IC, UT, TQ

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.633a	0.4	0.394	0.52309

a. Predictors: (Constant), CD, IT, IC, UT

b. Dependent Variable: TQ

Table 10 model summary shows that R square equal to 0.4 (R^2=0.4), and adjusted R square is equal to 0.394 (Adjusted R^2=0.394). It means that all independent variables (X) in the model were able to predict dependent variable (Y) for 39.4%. The multiple linear regression is useful based on the shown model summary.

Table 11 ANOVA of CD, IT, IC, UT, TQ

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.398	3	7.799	84.249	<.001b
	Residual	36.66	396	0.093		
	Total	60.058	399			

a. Dependent Variable: TQ

b. Predictors: (Constant), CD, IT, IC, UT, TQ

As the Table 11 ANOVA shows, the Sig. < 0.01, Sig. < 0.05, indicating that the independent variables of curriculum design (CD), interactive teaching (IT), intercultural content (IC), and utilizing technology (UT), have at least one positive effect on the dependent variable of teaching quality (TQ).

Table 12 Coefficient of CD, IT, IC, UT, TQ

Mode		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	0.252	0.227		1.112	0.267		
	CD	0.779	0.083	0.630	9.377	<.001	0.336	2.972
	IT	-0.407	0.066	-0.412	-6.162	<.001	0.340	2.941
	IC	0.190	0.042	0.183	4.502	<.001	0.922	1.084
	UT	0.372	0.042	0.361	8.785	<.001	0.896	1.115

a. Dependent Variable: TQ

In Table 12, the variables have been abbreviated as follows: CD stand for curriculum design, IT stand for interactive teaching, IC stand for intercultural content, UT stand for utilizing technology, and TQ stand for teaching quality. The result also showed that there is no collinearity, no sequence correlation, and residuals following a normal distribution.

The study reveals that curriculum design (coefficient: 0.779, p < 0.001) significantly enhances parents' perception of teaching quality by aligning with students' needs and objectives. Conversely, interactive teaching (coefficient: -0.407, p < 0.001) negatively impacts perception, indicating that current methods may not meet expectations. Integrating intercultural content (coefficient: 0.190, p < 0.001) positively influences perceptions by helping students use Mandarin appropriately in various contexts. Utilizing technology (coefficient: 0.372, p < 0.001) enhances teaching quality perception through modern tools that improve understanding and engagement. Overall, parents' perception of teaching quality strongly impacts their satisfaction (coefficient: 0.765, p < 0.001), suggesting that high-quality teaching correlates with higher satisfaction levels among parents.

There are four significant value results (Sig. < 0.05) based on the table result shown, which was curriculum design (CD) (Sig. < .001), interactive teaching (IT) (Sig. < .001), intercultural content (ICD) (Sig.<.001), utilizing technology (UT) (Sig. < .001). Thus, the multiple linear regression can be written as:

$$Y1 = 0.252 + 0.779X1+(-0.407)X2 + 0.19X3+0.372X4$$

In this equation, Y1 is dependent variable of teaching quality, X stands for

independent variables (X1 is curriculum design, X2 is interactive teaching, X3 is intercultural content, and X4 is utilizing technology). According to the result, the curriculum design (CD, $\beta = 0.630$) and utilizing technology (UT, $\beta = 0.361$) have more important effect on perception of the teaching quality.

Table 13 Summary of Hypotheses

NO	Hypotheses	Sig.	Conclusion	Result
H1	Curriculum design has positive impact on parents' perception of teaching quality	<.001	Positive effect	Supported
H2	Interactive teaching has positive impact on parents' perception of teaching quality	<.001	Negative effect	Rejected
H3	Integrating intercultural content has positive impact on parents' perception of teaching quality	<.001	Positive effect	Supported
H4	Utilizing technology has positive impact on parents' perception of teaching quality	<.001	Positive effect	Supported
H5	Parents' perception of teaching quality has positive impact on their satisfaction	<.001	Positive effect	Supported

Conclusion and discussion

The findings from the multiple linear regression analysis demonstrate that curriculum design, interactive teaching, integrating intercultural content, and utilizing technology positively affect teaching quality. Moreover, parents' perception of teaching quality significantly influences their overall satisfaction with Mandarin courses. The study gathered data from 468 respondents through the WENJUANXING online survey platform, with 400 responses deemed valid after data editing.

Analysis of the demographic data revealed that a majority of the respondents were female (61.8%), and most were under the age of 35 (44.3%). The majority of the respondents' children were in primary school (60%), followed by secondary school (26.8%). The educational background of the respondents primarily consisted of undergraduate (43.8%) and postgraduate (38.3%) qualifications. Satisfaction ratings showed that parents were most satisfied overall (mean = 3.64), with interactive teaching (mean = 3.6), intercultural content (mean = 3.59), utilization of technology (mean = 3.58),

teaching quality (mean = 3.58), and curriculum design (mean = 3.57) following closely.

The hypotheses tested through the regression analysis were all supported. Specifically, H1, which posited that curriculum design positively impacts parents' perception of teaching quality, was supported ($\beta = 0.63$, Sig. < 0.001). H2, suggesting that interactive teaching negatively impacts teaching quality, was rejected, showing a negative coefficient ($\beta = -0.412$, Sig. < 0.001), indicating an inverse relationship. H3, which proposed that integrating intercultural content positively influences teaching quality, was supported ($\beta = 0.183$, Sig. < 0.001). H4, which posited that the use of technology positively impacts teaching quality, was supported ($\beta = 0.361$, Sig. < 0.001). Finally, H5, which suggested that parents' perception of teaching quality positively impacts their satisfaction, was strongly supported ($\beta = 0.704$, Sig. < 0.001).

Discussion

The results showed that curriculum design and technology utilization had a strong positive influence on parents' perception of teaching quality, aligning with the objective of identifying effective teaching practices. However, the negative impact of interactive teaching indicated a mismatch between pedagogical strategies and parental expectations, highlighting an

area for improvement in aligning teaching methods with parent satisfaction. The integration of intercultural content also contributed positively, though to a lesser extent, suggesting that cultural elements enhance parents' perception of language education quality.

Managerial implications and recommendations

From the study, the recommendations outlined in this section aim to provide strategic guidance for enhancing the quality of Mandarin language courses in international schools. Drawing from the findings of this study, which emphasize the significant impact of curriculum design, interactive teaching methods, integrating intercultural content, and utilizing technology on parents' satisfaction, these recommendations seek to address key areas for improvement. By focusing on aligning curriculum objectives with content, incorporating diverse teaching strategies, fostering interactive and engaging classroom environments, integrating cultural knowledge, and leveraging advanced technological tools, educators can create a more effective and enriching Mandarin learning experience for students, thereby increasing overall satisfaction and educational outcomes.

Curriculum design

1) Ensure that the curriculum objectives are clearly aligned with the course content. This alignment helps students understand the purpose and relevance of what they are learning, leading to higher engagement and satisfaction.

2) Incorporate various teaching strategies that address different learning styles. This could include visual aids, hands-on activities, and auditory resources to cater to diverse learners.

3) Tailor the teaching of Chinese to match the proficiency levels of the students. This differentiation allows for more effective learning experiences and helps in maintaining student motivation and progress.

Interactive teaching

1) Be student-centered, solicit students' opinions, design classroom activities that students like, and design and organize classroom interactive sessions based on students' learning styles and interests.

2) Design classroom activities that provide opportunities for students to use Chinese through meaningful tasks. This could include group projects, role-playing, and interactive discussions that make the learning process engaging and practical.

3) Implement activities that spark students interest in learning Chinese. Using culturally relevant materials and interactive multimedia can make lessons more appealing and relatable.

4) Foster a classroom environment where both teacher-student and student-student interactions are encouraged. This interaction can be facilitated through group work, peer reviews, and interactive technologies that make learning more dynamic and collaborative.

Intercultural content

1) Ensure that teachers possess a deep understanding of Chinese culture and can effectively integrate this knowledge into their lessons. This cultural context enhances the language learning experience and helps students appreciate the nuances of the language.

2) Combine language instruction with cultural education. For instance, discussing cultural festivals, traditions, and everyday customs can provide students with a richer understanding of the language.

3) Emphasize the importance of teaching language within its cultural context. Use examples, stories, and cultural references that students can relate to and learn from, making the language more meaningful and easier to grasp.

Utilizing technology

1) Use effective technological tools and techniques in teaching. This includes multimedia presentations, language learning apps, and online resources that can enhance the learning experience.

2) Incorporate multimedia elements such as videos, audio clips, and interactive games that make learning more engaging and interactive. These tools can cater to different learning styles and keep students interested.

3) Regularly update the technological tools and resources used in teaching to ensure they are current and effective. This could involve integrating the latest educational technologies and online platforms that support interactive and immersive learning experiences.

Teaching quality

Invest in continuous professional development for teachers to enhance their teaching skills and stay updated with the latest pedagogical techniques.

1) Regular Feedback Mechanisms: Implement regular feedback mechanisms from students and parents to assess and improve teaching quality. This can include surveys, feedback forms, and regular parent-teacher meetings.

2) Encourage peer observation and collaboration among teachers to share best practices and innovative teaching strategies.

3) Shift towards a more student-centered approach, where the focus is on meeting the individual learning needs and preferences of students.

4) Utilize data from assessments and feedback to inform and adapt teaching practices, ensuring they are effective in improving student learning outcomes.

Limitations of the study

This study has several limitations that should be considered. Firstly, the use of a convenience sampling method, while practical, may not fully represent the broader population of parents whose children are enrolled in these courses. Secondly, the reliance on self-reported data through questionnaires introduces the possibility of response bias. Parents may have provided answers that they believe are socially desirable rather than their true perceptions, which could skew the results. Additionally, the study's cross-sectional design captures only a snapshot in time, limiting the ability to assess changes in satisfaction and teaching quality over time. Another limitation is the lack of qualitative data, such as in-depth interviews or focus groups, which could have enriched the findings by providing deeper insights into parents' nuanced experiences and expectations.

Future research implications

Future research can apply the adoption of longitudinal study designs that track changes in parents' satisfaction and

perceptions of teaching quality over time. This approach would offer valuable insights into the long-term impacts of curriculum changes, teaching methods, and technological integration on student outcomes and parent satisfaction.

Additionally, future studies should consider employing mixed-methods research, combining quantitative surveys with qualitative methods such as in-depth interviews or focus groups, considering the views of both parents and students. This would allow for a deeper exploration of the nuanced experiences and expectations of parents and the students themselves, providing richer contextual data that can inform more tailored educational strategies.

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