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CHINESE MIDDLE-SCHOOL LANGUAGE TEACHERS' RESPONSES TO EDUCATIONAL TECHNOLOGY TRAINING: A SURVEY STUDY IN GUANGXI, CHINA

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ABSTRACT

This study investigates the expectations and satisfaction of secondary school Chinese-language teachers in Guangxi, China, regarding educational technology training, set against the persistent urban-rural educational gap. Teachers in such underdeveloped regions face significant challenges in technological integration, including insufficient resources and training that lacks subject-specific practicality. Quantitative analysis of survey data reveals that teachers value training with high relevance to their teaching practice and interactive, practical elements. A significant positive correlation was found between expectations and satisfaction, though teaching experience was not a significant moderating factor. The findings enrich the application of the Technology Acceptance Model and provide practical guidance for optimizing training programs. This research underscores the need for precise, high-quality teacher training to bridge the educational resource divide and promote equitable development.

KEYWORDS: Educational, Teacher training, Technology integration, Expectations and satisfaction, Educational equity.

1. INTRODUCTON

In the context of global digital technology advancement, educational institutions are increasingly integrating technology into teaching, making educational technology professional development essential for teachers to adapt to new tools and methods. In China, while the Ministry of Education promotes ICT integration in primary and secondary education, there is a gap between national policies and local implementation, especially in under-resourced regions like Guangxi. Middle-school Chinese-language teachers face unique challenges in applying educational technology due to the traditional reliance on face-to-face interaction and textual analysis in language instruction. The effectiveness of training programs depends on alignment with teachers' expectations and needs. Mismatches can lead to dissatisfaction and limited application of new skills. Thus, exploring teachers' expectations and satisfaction with educational technology training is critical to optimizing programs and supporting sustainable technology integration in language education, particularly for Chinese-language teachers in Guangxi.

1.1. Background of Study

Digital technology has reshaped global education systems, prompting countries like China to develop strategies for digital literacy and ICT use in classrooms. However, effective technology integration relies on high-quality teacher training. In China's basic education, especially in rural areas like Guangxi, teachers often lack preparation for technology-enhanced teaching due to insufficient training, support, and exposure to digital pedagogies. Subject-specific needs, such as those of Chinese-language teachers, are often overlooked in generalized ICT training. Adapting traditional literacy instruction to digital formats is challenging, and misaligned training leads to low engagement and implementation. This study explores how Guangxi's middle-school Chinese-language teachers perceive educational technology training, focusing on their expectations, satisfaction, and the impact of these perceptions on technology use in practice.

1.2 Statement of the Problem

Despite growing attention to educational technology, many teachers struggle with digital instruction. In China, ICT integration efforts are hindered by training programs that fail to meet teachers' pedagogical and contextual needs, especially in Chinese-language instruction. Middle-school Chinese teachers in rural Guangxi face barriers like limited ICT access, irrelevant training content, and one-size-fits-all programs lacking subject specificity and practicality. Existing research on technology integration lacks empirical evidence on how teachers' expectations influence training satisfaction, particularly among Chinese-language teachers, whose instructional styles are harder to digitize. This study addresses this gap by examining expectations, satisfaction, and potential mismatches for Guangxi's middle-school Chinese-language teachers.

1.3. Research Questions

1. What are the key aspects of expectations and satisfaction of middle-school Chinese teachers in Guangxi toward educational technology training?
2. Is there a correlation between teachers' training expectations and their satisfaction? 3. How does teaching experience influence the relationship between expectations and satisfaction?

1.4. Research Hypotheses

1. Teachers' expectations of educational technology training are positively correlated with their satisfaction; higher alignment leads to higher satisfaction.
2. The positive correlation between expectations and satisfaction is stronger among teachers with longer teaching experience.
3. Training content customized for Chinese teaching improves satisfaction more than general content.

1.5. Significance of the Study

Theoretical: Contributes to literature on educational technology adoption and teacher professional development, extending frameworks like the Technology Acceptance Model (TAM) to understudied contexts (e.g., rural Chinese language teachers in Guangxi).

Practical: Provides feedback to improve training design, tailoring content and delivery to enhance engagement, relevance, and classroom implementation.

Policy: Informs efforts to reduce urban-rural educational inequality by highlighting context-sensitive training for resource-constrained regions and emphasizing subject-specific approaches.

1.6. Scope of the Study

Focuses on middle-school Chinese-language teachers in Guangxi (urban and rural), examining

their expectations and satisfaction with ICT-related training programs conducted in the past three years. Excludes other subjects, informal learning, and self-directed ICT exploration. Uses a quantitative survey to collect self-reported perceptions.

2. LITERATURE REVIEW

With the rapid development of educational technology the demand for targeted teacher training has increased In China national policies promote ICT integration in education but challenges remain in aligning training with teachers' actual needs---especially in under-resourced regions like Guangxi [1, 2]. Research shows that teachers' pre-training expectations and post-training satisfaction are critical to the success of professional development when expectations are met satisfaction rises boosting the likelihood of applying new skills [3, 4]. This aligns with Expectancy Disconfirmation Theory (EDT) which explains satisfaction as the result of comparing expectations with actual experiences [5]. For Chinese-language teachers who face unique difficulties in digital adaptation [6], context-specific and subject-tailored training is particularly important. This section reviews theoretical foundations key variables and empirical research to inform the study's conceptual framework.

2.1. Theoretical Foundations of Educational Technology Integration

This study is grounded in two complementary frameworks the Technology Acceptance Model (TAM) and Expectancy Disconfirmation Theory (EDT). TAM [7] explains how users form attitudes toward technology through perceived usefulness (belief that technology enhances performance) and perceived ease of use (simplicity of operation). For teachers these perceptions shape expectations about training relevance and applicability---e.g., whether digital tools fit text-based Chinese teaching [3, 8]. EDT focuses on post-experience satisfaction satisfaction arises when actual training meets or exceeds expectations (positive disconfirmation) while dissatisfaction occurs when it falls short (negative disconfirmation) [4]. For example generic training irrelevant to Chinese teaching reduces satisfaction [5]. Together TAM and EDT clarify how expectations form and how satisfaction is evaluated providing a theoretical basis for analyzing training effectiveness in resource-constrained contexts like Guangxi [1, 2].

2.2. Teachers' Expectations: Dimensions and Influencing Factors

Teachers' expectations center on three dimensions training content (practical subject-specific) delivery methods (interactive hands-on) and outcomes (improved teaching). For Chinese-language teachers expectations often include digital strategies for reading writing and cultural instruction---areas neglected in generic ICT training [6]. Expectations are shaped by Prior experience and digital competence Novice teachers may seek basic skills (e.g., digital classroom management) while experienced teachers expect advanced integration strategies [9, 10]. Contextual factors Urban teachers with better infrastructure may expect innovative training while rural teachers (e.g., in Guangxi) prioritize foundational skills to overcome resource barriers [2, 11]. Mismatches between expectations and training lead to disengagement [12] highlighting the need for pre-training needs assessments [3].

2.3. Teachers' Satisfaction with Educational Technology Training and Its Evaluation Dimensions

Satisfaction reflects teachers' overall evaluation of training influencing their motivation to apply new skills [13]. Key dimensions include Relevance and practicality Satisfaction rises when training addresses subject-specific needs (e.g., digital tools for Chinese text analysis) [6, 14]. Interactivity and support Programs with peer collaboration trainer feedback and hands-on activities improve engagement [15, 16]. Impact on practice Teachers are more satisfied if training enhances instructional strategies or student outcomes [17].

2.4. Teachers' Expectations and Satisfaction: Theoretical and Empirical Linkages

EDT explains the expectation-satisfaction relationship alignment between pre-training expectations and actual experience drives satisfaction [4]. Empirical studies support this Akram et al. [18] found teachers were more satisfied when training matched their pedagogical goals Qiu et al. [6] noted higher satisfaction among Chinese teachers receiving subject-tailored training Personal and contextual factors moderate this relationship Teachers with strong digital literacy may have higher expectations increasing disconfirmation risk if unmet [10], while rural teachers may rely more on training to meet basic needs [19].

2.5. Contextual Moderators Influencing the Expectation–Satisfaction Relationship

Teaching experience moderates the expectation-satisfaction link Novice teachers with basic expectations may be satisfied with foundational training [9]. Experienced teachers with refined goals may express lower satisfaction if training lacks depth [10]. This interaction highlights the need for differentiated training strategies.

2.6. Research Gaps and Positioning of the Current Study

Existing research has three key gaps. Neglect of Chinese-language teachers Most ICT studies focus on subjects like English or science overlooking unique challenges in Chinese teaching [6]. Limited regional focus Few studies examine rural/under-resourced contexts like Guangxi where infrastructure and policy implementation differ [2, 11]. Lack of variable interaction analysis Studies rarely explore how expectations satisfaction and contextual factors (e.g., experience) interact [20, 21]. This study addresses these gaps by focusing on Guangxi's Chinese teachers and analyzing variable interactions. Research on language acquisition and pedagogical practices provides a relevant backdrop for this study. This includes analyses of media's impact on learning [22] and the importance of pragmatic competence [23]. Furthermore, critical discourse analyses reveal how societal structures influence domains like law and advertising [24, 25, 26], underscoring the need to consider contextual factors in educational training.

2.7. Conceptual Framework Explanation

The framework centers on the expectation-satisfaction relationship with teaching experience as a moderator (based on EDT; [27]). Independent variable Teachers' expectations (content relevance practicality effectiveness) measured via questionnaire [28]. Dependent variable Satisfaction (content quality trainer effectiveness post-training confidence) [29]. Moderator Teaching experience (years in profession) as novice and experienced teachers may form and evaluate expectations differently [9].

3. RESEARCH METHODOLOGY

This section outlines the methodology for investigating middle-school Chinese-language teachers' perceptions of educational technology training in Guangxi, focusing on the relationship between their expectations, satisfaction, and the moderating role of teaching experience. A quantitative design with structured questionnaires was adopted, guided by Expectancy Disconfirmation Theory (EDT) and the Technology Acceptance Model (TAM). The section details research design, sampling, instrumentation, data collection, variable measurement, analysis techniques, and ethical considerations to ensure rigor.

3.1. Research Design

A quantitative, cross-sectional survey design was used to collect data from a large, diverse population efficiently. The design aimed to measure pre-training expectations and post-training satisfaction using standardized items, guided by EDT and TAM. It included between-group comparisons and correlation analyses to explore moderating effects of teaching experience, with statistical methods like correlation, t-tests, and ANOVA applied for analysis.

3.2. Population and Sampling

3.2.1. Target Population

The target population was middle-school Chinese-language teachers in public schools in Guangxi, with inclusion criteria: active teaching of Chinese, at least 1 year of experience, participation in at least one educational technology training in the past 3 years, and voluntary participation. This focus addressed subject-specific and regional (urban-rural) nuances in technology integration.

3.2.2. Sampling Technique

A combination of stratified and convenience sampling was used. Stratification by school location (urban/rural) ensured geographic diversity. Within selected regions, convenience sampling via online teacher communities and school channels recruited participants. A total of 208 valid responses were collected (64% urban, 36% rural), with variations in gender, experience, and school size.

3.3. Research Instrumentation

A self-administered structured questionnaire (English-Chinese translated) was used, with four sections:

Demographics: Gender, age, experience, school location, and prior training exposure.

Teacher Expectations: Items on training relevance, practicality, and perceived benefits (5-point Likert scale).

Training Satisfaction: Items on content quality, delivery, applicability, and overall experience (5-point Likert scale).

Contextual Factors: School support, infrastructure, and training accessibility.

3.4. Data Collection Procedure

Data was collected online after obtaining school approvals. The survey link was distributed via WeChat groups, training boards, and emails over 3 weeks, with two reminders. Anonymity, a brief study introduction, a concise questionnaire (8–10 minutes), and emphasis on utility for improving future training maximized response rates.

3.5. Variable Definition and Measurement

Independent Variable (Teacher Expectations): Subjective beliefs about training relevance, practicality, and effectiveness (measured via 5-point Likert scale).

Dependent Variable (Teacher Satisfaction): Post-training evaluation of content, delivery, and confidence in application (5-point Likert scale).

Moderator (Teaching Experience): Years of teaching (continuous variable, grouped into <5, 5–10, >10 years).

All variables were pretested for clarity and reliability, with acceptable internal consistency.

3.6. Data Analysis Techniques

SPSS 26 was used for analysis, with significance set at $p < 0.05$. Descriptive statistics summarized demographics and key variables. Correlation and regression analyses explored relationships between expectations and satisfaction, with subgroup analyses by teaching experience for nuanced insights.

3.7. Ethical Considerations

Ethical approval was obtained, and participation was voluntary. Informed consent highlighted anonymity, confidentiality, and right to withdraw. No identifying data were collected, and responses were stored securely for research purposes only, with eventual anonymization or deletion.

4. DATA ANALYSIS AND PRESENTATION OF RESULTS

This section presents a comprehensive statistical analysis of the data collected from 208 middle-school Chinese-language teachers in Guangxi Province, focusing on their expectations and satisfaction regarding educational technology training, as well as the potential moderating role of teaching experience. The analyses are guided by the research questions and hypotheses outlined in section 1. The results are interpreted through the lenses of Expectancy Disconfirmation Theory (EDT) and the Technology Acceptance Model (TAM), aiming to validate the conceptual framework and provide empirical insights into the dynamics between teachers' pre-training expectations, post-training satisfaction, and the influence of their professional experience.

4.1. Data Preprocessing

Prior to conducting statistical analyses, rigorous data preprocessing was performed to ensure data quality. A total of 215 questionnaires were initially collected, but 7 responses were excluded due to having more than 5% missing values, resulting in a final sample of 208 valid questionnaires (a response rate of 96.7%). For the remaining datasets, minor missing values (less than 5% per item) were imputed using the mean score of other items within the same construct (e.g., replacing a missing value in the "expectations" scale with the mean of the respondent's other answers in that scale). All items from the 5-point Likert scales (ranging from 1 = strongly disagree to 5 = strongly agree) were numerically coded, and composite scores for the key constructs—teachers' expectations, teachers' satisfaction, and contextual perceptions—were calculated by averaging the scores of their respective items. No outliers were detected through z-score analysis (all z-scores fell within the ±3.29 range), confirming the absence of extreme values that could bias the results. This preprocessing stage ensured that the dataset was robust and suitable for subsequent statistical testing.

4.2. Descriptive Statistical Analysis

Descriptive statistics were computed to summarize the demographic characteristics of the sample and provide an initial overview of the key variables. The demographic profile of the 208 respondents revealed the following:

Gender: 57.7% (n=120) were female, and 42.3% (n=88) were male, reflecting the gender distribution typical of middle-school Chinese-language teaching in the region.

Age: The largest age group was under 30 years old (34.6%, n=72), followed by 31–40 years (28.8%, n=60), 41–50 years (24.0%, n=50), and over 50 years (12.5%, n=26), indicating a relatively young teaching workforce.

Teaching experience: Most respondents had 5–10 years of experience (51.9%, n=108), with 34.1% (n=71) having less than 5 years and 13.9% (n=29) having more than 10 years.

School location: 64.4% (n=134) taught in urban schools, while 35.6% (n=74) were from rural schools, mirroring the urban-rural distribution of educational institutions in Guangxi.

Training participation: A significant majority (90.9%, n=189) reported having participated in at least one educational technology training program in the past three years, highlighting the relevance of the study's focus on training experiences.

These demographic characteristics aligned with the target population, ensuring that the sample was representative of middle-school Chinese-language teachers in Guangxi and enhancing the generalizability of the findings.

Variable	Category	Frequency	Percent
gender	Male	88	42.3%
	Female	120	57.7%
	Under 30	72	34.6%
age	31–40	60	28.8%
	41–50	50	24.0%
	Over 50	26	12.5%
Years of teaching experience	Less than 5 years	71	34.1%
	5–10 years	108	51.9%
	More than 10 years	29	13.9%
School location	Urban	134	64.4%
	Rural	74	35.6%
Received past three years'	Yes	189	90.9%
educational technology training.	NO	19	9.1%

4.3. Reliability and Validity Analysis

To ensure the research instrument was psychometrically sound, reliability and validity analyses were conducted.

4.3.1. Reliability Analysis

Reliability, which measures the internal consistency of the scales, was assessed using Cronbach's alpha coefficients. The results indicated strong internal consistency for all key constructs:

Teachers' expectations: α=0.873 (6 items), exceeding the recommended threshold of 0.70.

Teachers' satisfaction: α=0.863 (6 items), also well above 0.70.

Contextual perception items: α=0.687 (3 items), which, while slightly below 0.70, was deemed acceptable for exploratory research focusing on a new context.

These coefficients confirmed that the scales consistently measured the intended constructs, providing a reliable foundation for further analysis.

Variable	N of Items	Cronbach's Alpha
Teachers' Expectations	6	0.873
Teachers' Satisfaction	6	0.863
Contextual Perception Items	3	0.687

4.3.2. Validity Analysis

Construct validity, which evaluates whether the scales measure the theoretical constructs they are designed to assess, was examined using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity. The KMO value was 0.966, far exceeding the 0.80 threshold for excellent sampling adequacy, indicating strong intercorrelations among items. Bartlett's Test yielded a chi-square statistic of 1648.140 (df=105, $p<0.001$), confirming that the correlation matrix was not an identity matrix and that factor analysis was appropriate. Together, these results demonstrated good construct validity, supporting the use of the scales to measure expectations, satisfaction, and contextual perceptions.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.966
Bartlett's Test of Sphericity	Approx. Chi-Square	1648.140
	df	105
	Sig.	0.000

4.4. Single-Sample T-Test and Normality Analysis

4.4.1. Single-Sample T-Tests

Single-sample t-tests were conducted to determine whether the mean scores of the items measuring expectations, satisfaction, and contextual perceptions differed significantly from a neutral value of 3.0 (the midpoint of the 5-point Likert scale).

Teachers' expectations: All six items yielded mean scores significantly higher than 3.0 ($p<0.01$), ranging from 3.538 to 3.918. The highest mean was for "I expect to learn digital teaching methods applicable to Chinese language classes" (3.918), and the lowest was for "I expect the training to be interactive and practice-oriented" (3.538). Cohen's d values ranged from 2.727 to 3.211, indicating large effect sizes, confirming that teachers held strongly positive expectations for the training.

Teachers' satisfaction: All six items also scored significantly above 3.0 ($p<0.01$), with means ranging from 3.524 to 3.846. The highest mean was for "Overall, I am satisfied with the training experience" (3.846), and the lowest was for "The training content met my teaching needs" (3.524). Cohen's d values (2.907 to 3.111) again indicated large effects, reflecting high overall satisfaction.

Contextual perceptions: The three items

measuring school support and infrastructure also exceeded the neutral score ($p<0.01$), with means from 3.548 to 3.736. "I receive continued technical support after the training" scored highest (3.736), and "My school supports the application of what I learned in the training" scored lowest (3.548). Large effect sizes (Cohen's d=3.060 to 3.264) confirmed positive perceptions of contextual support.

Item	Mean	SD	*t*	*p*	Cohen's *d*
I expect the training content to be closely related to my teaching practice.	3.601	1.255	41.391	0.000**	2.870
I expect to learn digital teaching methods applicable to Chinese language classes.	3.918	1.254	45.057	0.000**	3.124
I expect the training to improve my competence in integrating technology.	3.577	1.233	41.834	0.000**	2.901
I expect the training to be interactive and practice-oriented.	3.538	1.146	44.544	0.000**	3.089
I expect the training to enhance student engagement and interest.	3.649	1.137	46.305	0.000**	3.211
I expect the content to be tailored to the subject of Chinese language teaching.	3.702	1.358	39.327	0.000**	2.727

Item	Mean	SD	*t*	*p*	Cohen's *d*
The training content met my teaching needs.	3.524	1.171	43.400	0.000**	3.009
The trainers were competent and supportive.	3.543	1.219	41.920	0.000**	2.907
The training provided practical classroom examples.	3.591	1.188	43.590	0.000**	3.022
The training was flexible and engaging.	3.822	1.229	44.870	0.000**	3.111
The training improved my confidence in using educational technology.	3.606	1.223	42.517	0.000**	2.948
Overall, I am satisfied with the training experience.	3.846	1.295	42.838	0.000**	2.970

Item	Mean	SD	*t*	*p*	Cohen's *d*
My school is equipped with adequate ICT facilities.	3.601	1.103	47.080	0.000**	3.264
My school supports the application of what I learned in the training.	3.548	1.154	44.354	0.000**	3.075
I receive continued technical support after the training.	3.736	1.221	44.134	0.000**	3.060

4.4.2. Normality Analysis

Normality of the data was assessed using the Kolmogorov-Smirnov (K-S) and Shapiro-Wilk (S-W) tests, which both indicated significant deviations from normality for all items ($p<0.01$). However, further analysis of skewness (-0.942 to -0.671) and kurtosis (-0.546 to 0.139) revealed that all values fell within the acceptable range (absolute values <1), suggesting only minor departures from normality. Additionally, the large sample size (n=208) mitigated the impact of non-normality, as per the Central Limit Theorem, justifying the use of parametric statistical tests in subsequent analyses.

4.3. Structural Equation Modeling (SEM) Analysis

Structural Equation Modeling (SEM) was used to test the hypotheses, examining the relationships between teachers' expectations, satisfaction, and the moderating role of teaching experience.

4.3.1. Model Regression Coefficients

The SEM results revealed a strong positive relationship between teachers' expectations and their satisfaction with educational technology training (standardized coefficient=0.986, $p<0.001$), providing strong support for Hypothesis 1, which posited a positive correlation between expectations and satisfaction. Additionally, satisfaction was found to have a significant positive impact on contextual perceptions (standardized coefficient=1.000, $p<0.001$). All observed items loaded significantly onto their respective latent constructs (standardized coefficients=0.598 to 0.820, $p<0.001$), indicating that the measurement model fit well.

4.3.2 Model Fit Indices

The overall model exhibited excellent fit to the data, as indicated by multiple fit indices:

$\chi^2/df=0.965$ (well below the threshold of 3),

Goodness of Fit Index (GFI)=0.948,

Comparative Fit Index (CFI)=1.002,

Non-Normed Fit Index (NNFI)=1.002,

Root Mean Square Error of Approximation (RMSEA)=0.000,

Standardized Root Mean Square Residual (SRMR)=0.029.

Common Indices	χ^2	df	p	χ^2/df	GFI	RMSEA	RMR	CFI	NFI	NNFI
Judgment Standard	-	-	>0.05	<3	>0.9	<0.10	<0.05	>0.9	>0.9	>0.9
Value	84.951	88	0.572	0.965	0.948	0.000	0.042	1.002	0.950	1.002

Other Indices	TLI	AGFI	IFI	PGFI	PNFI	PCFI	SRMR
Judgment Standard	>0.9	>0.9	>0.9	>0.5	>0.5	>0.5	<0.1
Value	1.002	0.929	1.002	0.695	0.796	0.840	0.029

All indices met or exceeded recommended thresholds, confirming that the model adequately represented the relationships among the variables.

4.3.3. R^2 Values

The model explained a substantial proportion of variance in the dependent variables:

97.2% of the variance in teachers' satisfaction was explained by their expectations,

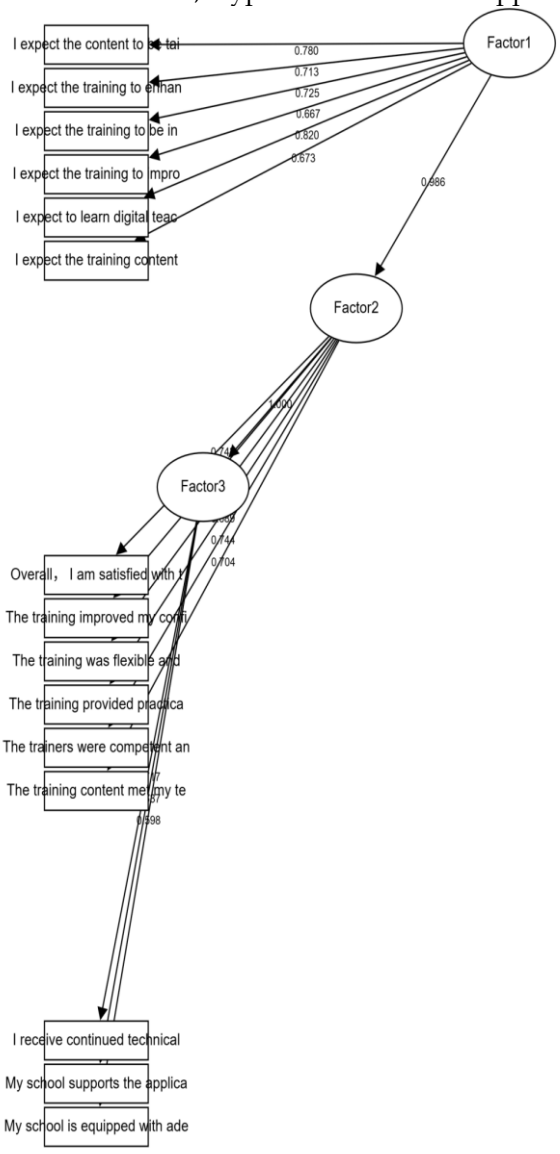
100% of the variance in contextual perceptions was explained by satisfaction,

Individual items within each construct were explained by 35.7% to 67.2% of variance, indicating moderate to strong explanatory power.

Item	R^2 Value
Factor2	0.972
Factor3	1.000
I receive continued technical support after the training.	0.514
I expect the content to be tailored to the subject of Chinese language teaching.	0.609
I expect the training to enhance student engagement and interest.	0.508
I expect the training to be interactive and practice-oriented.	0.525
I expect the training to improve my competence in integrating technology.	0.445
I expect to learn digital teaching methods applicable to Chinese language classes.	0.672
I expect the training content to be closely related to my teaching practice.	0.453
My school supports the application of what I learned in the training.	0.406
My school is equipped with adequate ICT facilities.	0.357
Overall, I am satisfied with the training experience.	0.552
The training improved my confidence in using educational technology.	0.511
The training was flexible and engaging.	0.495
The training provided practical classroom examples.	0.475
The trainers were competent and supportive.	0.553
The training content met my teaching needs.	0.495

4.5.4. Moderation Analysis

Multi-group SEM was conducted to test Hypothesis 2, which proposed that teaching experience moderates the relationship between expectations and satisfaction. The sample was divided into three groups based on teaching experience: <5 years, 5–10 years, and >10 years. The chi-square difference test between the unconstrained model (allowing path coefficients to vary across groups) and the constrained model (fixing coefficients across groups) yielded a non-significant result ($\Delta\chi^2$=4.127, Δdf=2, p=0.127), indicating that teaching experience did not significantly moderate the relationship between expectations and satisfaction. Thus, Hypothesis 2 was not supported.



5. DISCUSSION AND CONCLUSION

This section analyzes the core results of the study on junior high school Chinese teachers in Guangxi regarding their expectations and satisfaction with educational technology training and explores the moderating role of teaching experience. It summarizes key findings, discusses their alignment with existing literature, outlines implications, offers recommendations, suggests future research directions, and concludes with the study's significance.

5.1. Summary of Findings

Teachers' expectations for educational technology training are significantly above neutral ($p < 0.01$), focusing on practice-related content, subject-specific digital methods, interactive formats, and student engagement. Their satisfaction is also significantly above neutral ($p < 0.01$), with high ratings for relevant content, practical cases, flexible methods, and overall experience. SEM analysis shows a strong positive correlation between expectations and satisfaction (standardized coefficient = 0.986, $p < 0.001$), supporting Hypothesis 1. Teaching experience does not significantly moderate this relationship, so Hypothesis 2 is not supported. The questionnaire has high reliability (expectations α=0.873, satisfaction α=0.863) and validity (KMO=0.966, Bartlett's test $p < 0.001$).

5.2. Discussion

The positive expectation-satisfaction correlation aligns with Expectancy Disconfirmation Theory [4] and prior research [3]. Teachers' focus on "perceived usefulness" reflects the Technology Acceptance Model [8]. Chinese teachers' high expectations for subject-specific content (mean=3.702) support the need for subject-tailored training [6, 30]. Both urban and rural teachers value practical content, consistent with Wu et al. [11]. Unlike Karlberg and Bezzina [9], teaching experience does not affect the expectation-satisfaction relationship, as all teachers prioritize relevance [10].

5.3. Implications

Theoretically, the study extends TAM and EDT to resource-constrained, subject-specific contexts and highlights the need for subject variables in theoretical models. Practically, training providers should design Chinese-focused content and interactive methods, conduct pre-training needs assessments. Schools should offer post-training support and improve infrastructure. Policymakers should address resource inequality in Guangxi [2] and develop subject-specific training guidelines.

5.4. Recommendations

Training providers should create Chinese-specific modules (e.g., literary text analysis tools, character teaching platforms) and use blended learning. They should also conduct pre-training needs surveys. Schools should establish post-training support systems and upgrade rural infrastructure. Teachers should actively participate in needs assessments and peer sharing. Future studies could expand samples to other regions/subjects, use longitudinal designs, include more moderators (e.g., digital self-efficacy), adopt mixed methods, or conduct cross-cultural comparisons to explore universal and context-specific factors.

5.5. Conclusion

The study finds a strong positive correlation between Guangxi junior high school Chinese teachers' expectations (for subject-related, practical training) and satisfaction, with teaching experience not moderating this relationship. It highlights the importance of "relevance" and subject-specific professional development. Despite limitations (geographic scope, cross-sectional design), it provides insights for improving training in resource-constrained contexts, supporting educational equity and quality in Guangxi and similar regions.

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