

Effects of Supportive Parenting Style, Academic Self-Concept, Expectations, and Values on Mandarin Academic Achievement Among First-Year Vocational College Students

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Abstract

This research investigates the effects of supportive parenting style, academic self-concept, and expectancy-value beliefs on Mandarin academic achievement among first-year vocational college students in central and western China. Standardized scales and the Putonghua Proficiency Test were employed, with data analyzed using descriptive statistics, correlation, and regression. The results confirm that all three predictors exert significant and positive influences, with supportive parenting emerging as the strongest factor. These findings underscore the decisive role of family support and motivational beliefs in language achievement and offer practical implications for educational policy and family engagement in multicultural and under-resourced contexts.

Keywords: Mandarin achievement, supportive parenting style, academic self-concept, expectancy-value, vocational students

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Introduction

Mandarin Chinese is essential for national unity, cultural exchange, and educational opportunity in China. This policy emphasis underscores a growing recognition of language as both a barrier and a bridge to social equity. Research has shown that language proficiency is strongly correlated with academic success, access to employment opportunities, and social integration, particularly for students from ethnic minority and rural backgrounds (Wang & Postiglione, 2009). In regions like Guizhou, where a high proportion of the population communicates daily in regional dialects or minority languages, the disparity in Mandarin proficiency reflects deeper issues of educational inequality and cultural marginalization (Zhou, 2000). Consequently, improving Mandarin competence among vocational college students is not merely a linguistic challenge but a multidimensional educational and social intervention. Recent initiatives, such as targeted teacher training, curriculum reform, and community-based language promotion activities, have been part of the Ministry's broader strategy to narrow the language gap (Ministry of Education of the People's Republic of China, 2021).

Developmental psychology highlights that academic achievement is shaped not only by cognitive ability but also by motivational beliefs, emotional support, and cultural context (Erikson, 1968; Marsh & Martin, 2011; Wigfield & Eccles, 2000). Three constructs are particularly relevant in explaining language learning outcomes: supportive parenting style, which provides the emotional and structural foundation for learning; academic self-concept, which reflects students' confidence in their academic abilities; and expectancy-value beliefs, which capture how students' expectations of success and perceived value of learning influence effort and persistence (Eccles & Wigfield, 2002; Grolnick & Ryan, 1989). Although each factor has been individually associated with student achievement (Cheung & Pomerantz, 2012; Marsh & Martin, 2011; Wigfield & Eccles, 2000), their combined effects on Mandarin academic performance among first-year vocational college students remain underexplored. Addressing this gap, the present study examines how supportive parenting style (Cheung & Pomerantz, 2012), academic self-concept (Marsh & Martin, 2011), and expectancy-value beliefs (Eccles & Wigfield, 2002) jointly contribute to Mandarin achievement in under-resourced and multicultural regions of China.

Literature Review

Mandarin proficiency reflects a learner's mastery of phonetics, grammar, fluency, and communicative competence, and it is formally assessed through the Putonghua Proficiency Test (PSC), which serves as a national benchmark for both educational and employment purposes (Ministry of Education of the People's Republic of China, 2021). Research has shown that such achievement is shaped not only by cognitive and instructional factors but also by psychosocial and contextual influences. Supportive parenting, characterized by emotional warmth, cognitive guidance, and autonomy support, fosters academic confidence and persistence, with Chinese families further embedding cultural values such as filial piety and the prioritization of education into parenting practices (Cheung & Pomerantz, 2012; Darling & Steinberg, 1993; Maccoby & Martin, 1983).

Alongside family influences, academic self-concept—students' beliefs in their academic abilities—emerges as a robust predictor of motivation, engagement, and achievement, particularly in language learning (Marsh & Craven, 2006; Marsh & Martin, 2011; Wolff et al., 2018). Complementing this, expectancy-value theory explains that achievement is driven

by students' expectations of success and the value they assign to learning, encompassing attainment, intrinsic, and utility values, all of which strongly shape effort and persistence in Mandarin learning (Eccles & Wigfield, 2002; Wigfield & Eccles, 2000).

Taken together, supportive parenting style, academic self-concept, and expectancy-value beliefs represent interrelated personal and contextual factors that shape student achievement. While each has been independently linked to educational outcomes, their combined influence on Mandarin proficiency among vocational college students—particularly in regions where local dialects dominate and resources are scarce—remains underexplored. This study addresses this gap by examining how these factors jointly predict Mandarin academic achievement, providing both theoretical insights and practical implications for educational policy and family involvement in under-resourced contexts.

Methodology

Participants

The target population comprised 740 first-year students enrolled in the Intelligent Manufacturing Engineering Department at Guizhou Industrial Vocational and Technical College. To ensure representativeness, a stratified random sampling procedure was applied, with strata defined according to class sections and gender distribution. From this process, 255 students were selected as the study sample. This approach minimized sampling bias and allowed the sample to reflect the demographic and academic diversity of the larger student population.

Instruments

Four instruments were used to assess the key variables in this study.

Supportive Parenting Style Scale

Adapted from Maccoby and Martin's (1983) typology, this 10-item Likert-type scale evaluates students' perceptions of their parents' supportive behaviors, including emotional warmth, cognitive guidance, and autonomy support. Responses are rated on a 5-point scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"), with higher scores indicating stronger perceptions of supportive parenting. Example item: "My parents encourage me when I face difficulties in learning."

Academic Self-Concept Scale

Based on Marsh's (1993) framework, this 10-item scale measures students' beliefs and confidence in their ability to succeed in Mandarin learning. Items reflect self-perceptions of competence, persistence, and positive attitudes toward Mandarin. Responses are recorded on a 5-point Likert scale, with higher scores representing a stronger academic self-concept. Example item: "I believe I can do well in Mandarin classes."

Expectancy-Value Scale

Developed from Wigfield and Eccles (2000), this 10-item scale assesses motivational beliefs in two domains: (a) expectancy, or students' confidence in achieving success in Mandarin,

and (b) value, which covers attainment value, intrinsic interest, and utility value. Items are rated on a 5-point Likert scale, with higher scores reflecting stronger motivational beliefs. Example item: “Learning Mandarin is important for my future career.”

Mandarin Academic Achievement

Achievement was measured using the Putonghua Proficiency Test (PSC), a standardized national assessment of Mandarin. The PSC evaluates phonetic accuracy, grammatical knowledge, fluency, and communicative competence. Scores range from 0 to 100, with higher scores reflecting greater Mandarin proficiency. Example item/task: Reading a passage aloud to assess pronunciation and fluency.

All measurement scales passed validity and reliability checks prior to use in the study. Approval for the research was obtained from the Graduate School and the college administration. Data were collected through self-administered questionnaires for the psychosocial variables and official test results for Mandarin achievement. The instruments demonstrated acceptable internal consistency, with Cronbach’s alpha coefficients of $\alpha = .87$ for the Supportive Parenting Style Scale, $\alpha = .76$ for the Academic Self-Concept Scale, and $\alpha = .84$ for the Expectancy-Value Scale.

Results

This study analysis examines the relationships between supportive parenting style (IVSPS), academic self-concept (IVASC), expectancy-value beliefs (IVEVT), and Mandarin academic achievement (DVPSC) among 255 first-year vocational college students.

Table 1
Descriptive Statistics

Variable	Mean	SD	N
1.DVPSC	81.27	7.98	255
2.IVSPS	30.56	4.49	255
3.IVASC	30.03	3.43	255
4.IVEVT	31.18	3.76	255

Correlations

All predictors strongly and positively correlated with Mandarin achievement ($r = .419$ for Parenting, $.438$ for Self-Concept, $.398$ for Expectancy-Value, $p < .001$).

Table 2
Correlation Matrix of Study Variables (n = 255)

Variables	1	2	3	4
1. Mandarin Academic Achievement	1.000	—	—	—
2. Supportive Parenting Style	.419**	1.000	—	—
3. Academic Self-Concept	.438**	.487**	1.000	—
4. Expectancy-Value	.398**	.318**	.600**	1.000

Note. ** $p < .001$ (highly significant)

All variables show significant positive correlations with Mandarin academic achievement. Supportive parenting ($r = .419^{**}$), academic self-concept ($r = .438^{**}$), and expectancy-value beliefs ($r = .398^{**}$) are each moderately associated with higher Mandarin proficiency. Among the predictors, academic self-concept demonstrates the strongest correlation with Mandarin achievement.

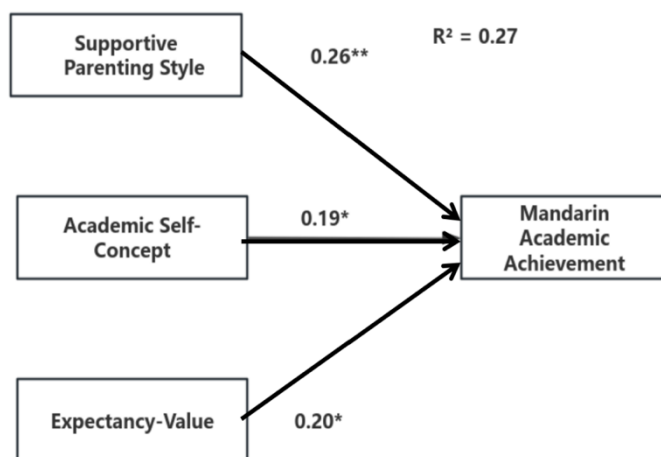
Additionally, the predictors are positively interrelated. Supportive parenting correlates with both academic self-concept ($r = .487^{**}$) and expectancy-value beliefs ($r = .318^{**}$), suggesting that family support is linked to students' motivation and confidence. The strongest relationship in the matrix is between academic self-concept and expectancy-value beliefs ($r = .600^{**}$), indicating that students who believe in their academic abilities also tend to value and expect success in Mandarin learning.

Regression Analysis

The multiple regression model explained 27.3% of the variance in Mandarin academic achievement, $R^2 = .273$, $F(3, 251) = 31.44$, $p < .001$. Among the predictors, supportive parenting style was the strongest contributor ($\beta = .262$, $p < .001$), followed by expectancy-value beliefs ($\beta = .200$, $p = .003$) and academic self-concept ($\beta = .191$, $p = .010$). These findings indicate that all three predictors made significant, positive contributions to Mandarin academic achievement, with family support exerting the greatest influence.

Figure 1

Supportive Parenting Style Influences Mandarin Academic Achievement Through Its Impact on Students' Academic Self-Concept and Expectancy-Value of Mandarin Academic Achievement



Discussion

This study demonstrates that supportive parenting style, academic self-concept, and expectancy-value beliefs each exert significant and positive influences on Mandarin academic achievement, with supportive parenting emerging as the strongest predictor. These findings highlight the crucial role of family support, motivational beliefs, and students' self-perceptions in shaping language learning outcomes. They are consistent with prior research showing that supportive parenting fosters persistence and confidence, academic self-concept predicts long-term achievement (Marsh & O'Mara, 2008), and expectancy-value beliefs drive effort and persistence in learning (Eccles & Wigfield, 2002).

Importantly, the results confirm that Mandarin proficiency is not determined solely by cognitive ability or classroom instruction but is also shaped by the interplay of family environment, perceived competence, and motivational factors. For vocational college students, who often face barriers such as dialect prevalence and limited socioeconomic resources, these psychosocial factors may be especially critical. The findings therefore reinforce the value of family engagement and motivational support in language education policy, particularly in multicultural and under-resourced regions.

Nevertheless, several limitations must be acknowledged. The model explained a moderate proportion of variance ($R^2 = .27$), indicating that other unmeasured factors also contribute to Mandarin achievement. The cross-sectional design precludes causal inference, and the focus on one vocational college in southwestern China limits generalizability. Future research should adopt longitudinal and multi-cohort designs, while incorporating additional variables such as teaching strategies, peer influence, and learning contexts, to provide a more comprehensive understanding of language achievement.

Conclusion

This study demonstrates that supportive parenting style, academic self-concept, and expectancy-value beliefs are robust predictors of Mandarin academic achievement among vocational college students. Together, these factors underscore the importance of family support, self-belief, and motivational orientations in overcoming linguistic and socioeconomic barriers. The findings contribute to the literature by highlighting the psychosocial dimensions of language learning in under-resourced contexts and offer practical guidance for families, educators, and policymakers seeking to improve Mandarin proficiency and educational equity for vocational student populations.

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