The Interplay of Social Support and Vocational Education Perceptions on Academic Motivation: Insights from Chinese Vocational College

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Abstract
The students' academic motivation has been identified as a significant factor influencing their performance and success in educational setting. Thus, it is significant to examine how the students' perceptions of the educational system and their social support could contribute to their academic progression. Hence, this study aims to investigate the relationship between perceived social support, perceptions of vocational education and academic motivation among vocational college students in Guizhou, China. Employing a correlational research design, this study used convenience sampling to survey 408 students from a vocational college in Guizhou, China. Data were collected through online questionnaires comprising the Academic Motivation Scale, the Child and Adolescent Social Support Scale and Image of Vocational and Educational Training Scale. The results of the study show that the overall academic motivation, perceptions of vocational education and social support were recorded at a moderate level. Moreover, the findings from multiple regression analysis indicated academic motivation is significantly influenced by the perceptions of vocational education and perceived social support among vocational school students. The results underline the necessity of concerted efforts to enhance students' academic motivation through improving the image and perceived value of the vocational education as well as strengthen the support systems for students.
Keywords: Vocational and Educational Training (VET), Vocational College Students, Academic Motivation, Social Support, Perceptions towards Vocational and Educational Training

Introduction
Vocational and Educational Training (VET) plays a crucial role in national development by supplying a spectrum of competencies to meet the evolving needs of society and communities. By preparing the students with workplace skills and competencies, VET serves unique educational purposes, providing far-reaching opportunities for meaningful career growth (Billett, 2011). As defined by Cedefop (2014), VET is a specialized form of education and training that equips individuals with the knowledge, techniques and skills necessary for specific occupations, tailored to socital needs (Moodie, 2008). Work-based components form

the backbone of this education, culminating in vocational qualifications that carry weight in the labour market.

Students' academic motivation was reported as a determinant of students' academic performance (Wang, 2024). Academic motivation refers to an internal process or psychological state that motivates individuals to engage in academic activities, sustains the academic activities that have been elicited, and leads to behaviour towards academic goals (Li & Yan, 1993). The main components of academic motivation comprised of four dimensions which are the knowledge values, direct interest in academic, perception of one's sense of academic ability and academic achievement attributions (Zhang, 1999).

High level of academic motivation drives students to learn more effectively, thereby improving their knowledge and performance, while low academic motivation can hinder the academic process (Huang et al., 2011). A recent study conducted in Anhui Province, China demonstrated that learning motivation serves as a significant predictor of academic achievement of vocational college students. Highly motivated students are more inclined to adopt effective learning strategies and exhibit greater resilience when confronted with challenges, which subsequently translates into better academic performance (Zheng & Mustappha, 2023). This relationship between motivation and academic outcomes underscores the importance of investigating the factors that influence vocational students' motivation, as such insights could inform the development of more effective teaching and learning strategies.

Given the critical role of academic motivation in student success, it is imperative to investigate the factors that influence it, particularly in the context of vocational education. Social support, encompassing assistance from family, peers, and educators, has been shown to positively correlate with academic motivation (Zhou et al., 2019). Turner et al. (1983) positing that social support primarily refers to assistance from significant others (such as relatives, classmates, and friends) during challenging times. In educational setting, students receive support from various sources including parents, teachers and peers. Parental social support, which includes emotional and instrumental support, is essential for children's well-being and school success (Wills et al., 2014; Wang et al., 2018). In school, teacher support significantly impacts students' academic and behavioral outcomes, influencing school engagement and cognitive engagement (Archambault et al., 2017; Wang & Holcombe, 2010). On the other hand, peer relationships grow in importance as students mature. In a recent study conducted by Martinot et al. (2022), it was found that peer social support, along with teacher's social support serve as the most influential sources of social support for students, facilitating their engagement in school.

Parental social support is identified as a key factor that contributes to their children's well-being. As outlined by Wills et al. (2014), this concept refers to the resources parents offer their children to aid them in coping with various issues. This form of support is divided into two primary categories: emotional and instrumental (Cutrona & Russell, 1987). Emotional support emanates from attitudes and behaviors including respect, care, warmth, and love that the parents extend to their children. On the other hand, instrumental support is characterized by practical assistance, providing concrete help when children need it (Wang et al., 2018). Both emotional warmth and practical aid from parents form the foundation of

parental social support and are essential in fostering the overall well-being of children and their success in schools.

In school, teachers play an important role in enhancing students'adjustment, performance and their overall well-being. Teacher's social support have a significant impact on students'academic and behavioral outcome in school (Archambault et al., 2017; Wang & Holcombe, 2010). Students who perceived high social support from teachers report higher school engagement (Wang & Holcombe, 2010), increased cognitive engagement (Wang & Eccles, 2012) and exhibited socially desirable behaviors (Birch & Ladd, 1997). Social support from teachers can be manifested in several ways including their instructional methods, classroom management strategies, and the academic assistance they provide (Christenson & Reschly, 2012).

As students mature, their relationships with peers and friends tend to grow in closeness and significance. Those who face rejection from their peers, and fail to cultivate positive relationships, often grapple with challenges in their academic pursuits. Such students are prone to disengage from school activities. In a recent study conducted by Martinot et al. (2022), it was found that peer social support, along with teacher's social support serve as the most influential sources of social support for French students, facilitating their engagement in school.

In addition, the negative perception of VET in China and other countries presents significant challenges that can directly impact students' academic motivation. Recent literature has highlighted the far-reaching consequences of these perceptions. Liu and her colleagues (2022) found that the perception of discrimination against VET not only affects vocational college students' career exploration but also influences their self-evaluation and psychological flexibility. Furthermore, these negative perceptions also shape students' beliefs about their future success (Tlapana & Myeki, 2020), potentially undermining their motivation to excel in their studies. This interplay between social support, individual beliefs stemmed from society and academic motivation underscores the complex challenges facing VET systems and highlights the need for a more nuanced understanding of these dynamics to improve educational outcomes in vocational settings.

In China and other developing countries, due to negative perceptions of vocational education and training, students have little confidence that the institution will bring them success in the future (Tlapana & Myeki, 2020). This lack of confidence is rooted in a complex interplay of factors, including institutional deficiencies and poor public image, often relegating VET to a last resort for students rejected by universities (Zulu, 2017).

The perception observed is that TVET' s are experiencing atarnished reputation stemming largely from their own deficiencies and a poor public image. This then becomes the reason that they are the last option for students rejected by universities (Zulu, 2017).Negative public perception of VET also arises from the perceived failure of technical-oriented tertiary institutions to lead in industries (Essel, 2014). Practical training often suffers from a severe lack of appropriate teaching facilities. This inadequacy surfaces during training sessions, which may lack necessary hands-on activities, suppressing the full expression of students' talents. The outdated nature of tools and equipment in vocational education intensifies this

issue (Dzigbede, 2009; Netherlands Organization for International Cooperation in Higher Education, 2010; Dasmani, 2011). Numerous studies have investigated this, revealing, for instance, that despite the appeal of higher education for employment, its lack of specialization and upward mobility often skews perceptions negatively towards vocational education (Zhang, 2013). Nevertheless, these studies tend to overlook the views of vocational students – the very subjects of vocational education. A more focused analysis of their perceptions could provide a much-needed understanding of vocational institutions' current status and inform the future development of vocational education.

Students' perceptions of VET are a composite of personal expectations and aspirations. These perceptions are closely tied to their evaluation of welfare programmes, considering employment prospects, status, and lifestyle (Mbambo, 2016). In countries like China and others still developing, negative perceptions of VET often stem from a lack of confidence in institutions paving the path to future success (Tlapana & Myeki, 2020). Existing research falls short in providing clear insights into vocational college students' perception towards VET and the current situation of perceived social support. This study aims to fill that gap, providing a solid empirical foundation to inform the perceptions toward vocational education and the perceived social support among vocational college students.

Literature Review
Academic Motivation
Academic motivation plays a significant role in students' academic. According to Shunck et al. (2008), academic motivation refers to the process that initiates and sustains goal-directed activities related to functioning and success. It can be understood as an internal and inner urge that drives students to engage in academic activities, seek knowledge and strive for academic excellence (Zhou & Zhou, 2021; Luo, 2024).

Academic motivation can be characterized into three main dimensions as proposed by Ryan and Deci (2000): intrinsic motivation, extrinsic motivation, and amotivation. Intrinsic motivation refers to the engagement in academic activities for genuine pleasure and satisfaction derived from the activities themselves. Learners who are intrinsically motivated engage in academic pursuits voluntarily, driven by internal factors such as curiosity, interest, and enjoyment, rather than external rewards or pressures (Ryan & Deci, 2000). This type of motivation is characterized by a natural inclination towards learning and mastery, where the activity itself is seen as inherently rewarding.

In contrast, extrinsic motivation refers to behaviors driven by factors external to the activity itself, such as rewards, grades, or avoiding punishment. These behaviors are performed not for their inherent satisfactions, but for separable outcomes (Ryan & Deci, 2000). Extrinsic academic motivation, as conceptualized by Deci and Ryan in their Self-Determination Theory, comprises three distinct dimensions: identified regulation, introjected regulation, and external regulation (Deci & Ryan, 1985; Gao, 2020). Identified regulation occurs when an individual recognizes and accepts the personal importance and value of a behavior (Deci & Ryan, 2000). In this state, the person has internalized the external motivation to some degree, seeing it as personally relevant (Gao, 2020). Introjected regulation represents a more controlled form of motivation. Here, individuals absorb external rules but do not fully integrate them into their sense of self (Deci & Ryan, 2000; Wu, 2018).

People operating under introjected regulation engage in activities to avoid anxiety or guilt, or to maintain their self-esteem. While they act on these internalized pressures, they don't yet experience the behavior as a genuine part of themselves (Wu, 2018). External regulation is the most controlled form of extrinsic motivation. In this case, an individual's behavior is directly controlled by external contingencies, such as rewards or punishments (Deci & Ryan, 2000; Wei, 2014). There is no internalization process; the behavior is entirely driven by its expected outcomes rather than any internal acceptance or valuing of the activity itself (Wei, 2014).

Amotivation, often observed in classroom settings, refers to a lack of intentionality or motivation related to academic activities. It represents a state where students lack the intention to act, resulting from not valuing the academic activities, not feeling competent to do it, or not believing it will yield a desired outcome. Amotivation has been identified as a strong predictor of students' engagement, learning, and well-being (Ryan & Deci, 2020).

Research has consistently shown that academic motivation significantly influences students' academic performance. Zhao and Wang (2013), studying English university students, found a strong association between motivation and academic performance. Similarly, Gao (2020) demonstrated a significant positive correlation between academic motivation and performance among university students, with motivation serving as a positive predictor of academic outcomes. However, these studies primarily focus on traditional university settings, revealing a notable research gap concerning vocational college students.

Social Support
Social support has been a subject of extensive research in educational setting, with various scholars contributing to its conceptualization and understanding of its impact on students. Early definitions of social support emphasized its role in maintaining social relationships and expectations (Killilea & Caplan, 1976). Caplan (1974) viewed social support as an objective system that provides feedback, material support, and psychological guidance to individuals. However, the concept evolved to include subjective experiences and feelings of the individual receiving support. Cobb (1976) defined social support as information leading a person to believe they are cared for, valued, and belong to a network of mutual responsibility. This definition highlighted the psychological aspect of support rather than just the tangible resources provided. The subjective aspect was further emphasized by Procidano and Heller (1983), who defined social support as the extent to which individuals believe their needs for support, information, and feedback are met. Different from the actual social resources obtained, perceived social support assesses an individual's expectations and feelings about external support, and it has a stronger buffering effect on psychological stress (Hartley & Coffee, 2019).

Researchers have proposed various classifications of social support. Cobb (1979) identified six categories: emotional, network, informational, material, instrumental, and nurturing support. Other scholars (House, 1983; Cohen & Wills, 1985; Cutrona & Russell, 1990) consolidated these into four main types: emotional, informational, instrumental, and appraisal support. In educational contexts, social support plays a crucial role in students' academic and mental health development. For students, perceived support primarily comes

from two groups: teachers and peers (Wang et al., 2023). This support can significantly influence students' academic motivation, engagement, and overall well-being (Lu, 2024).

Teacher support has been found to have a significant impact on students' academic outcomes and behavior (Archambault et al., 2017; Wang & Holcombe, 2010). Chen (2014) discovered that teacher support positively affects academic motivation and achievement, particularly for lower-primary school students. At the vocational college level, teachers' support continues to play a vital role. Zhou (2023) conducted a survey of 414 vocational college students in Chongqing, China. The results demonstrated that teacher support positively predicts vocational students' academic achievements through the mechanism of enhancing students' academic self-efficacy and learning engagement. This finding extends the importance of teacher support beyond primary and secondary education, highlighting its significance in vocational education settings as well.

While teacher support is crucial, it is not the only source of social support that impacts students' academic and social development in educational settings. Peer support also plays a significant role in shaping students' social behavior and academic functioning. In China, research findings from several studies have demonstrated that perceived peer support predicts academic adjustment (Yan, Lu & Ma, 2024), while also indirectly impacting academic hope and professional identity, ultimately leading to improved academic motivation. Additionally, peer support can manifest in the form of peer mentoring programs, which help to foster academic motivation and other professional skills (Ma & Chen, 2024).

Beyond the school, parental social support is a key factor contributing to children's well-being and academic success. Wills et al. (2014) outlined parental social support as the resources parents offer their children to facilitate them in coping with various issues in their lives. Cutrona and Russell (1987) categorize parental support into two primary dimensions: emotional and instrumental support. Emotional support involves attitudes and behaviors such as respect, care, and love that parents extend to their children. Instrumental support, on the other hand, refers to practical assistance and concrete help provided when children need it. The impact of parental support on academic outcome is significant across various educational levels.

In the context of vocational education, limited studies have explored the role of parental support. Peng and colleagues (2022) found that parental support, such as providing autonomy, emotional and ability support, impacts secondary vocational students' learning engagement and achievement goal orientation. These cognitive and behavioral changes subsequently lead to better academic performance. However, it is important to note that parental support tends to decrease as children develop and gain more autonomy in their lives. In Malaysia, Omar et al. (2018) reported that parental involvement correlates positively with achievement motivation and academic achievements among vocational college students. Although parental involvement is closely related to parental social support, it cannot fully capture the emotional and psychological aspects of support that are crucial for students' well-being and academic motivation. While parental involvement primarily focuses on observable behaviors and actions that parents take in relation to their child's education (Epstein, 1992), parental social support encompasses a broader, more nuanced spectrum of emotional and psychological support.

Research on perceived social support among vocational students in China remains limited in scope and depth. Existing studies have primarily focused on demographic differences in perceived social support or its relationship with life satisfaction and psychological well-being (Zhang, 2020). However, the critical connection between perceived social support and academic motivation in vocational education settings has been largely overlooked. This gap in the literature is particularly significant given the unique challenges and needs of vocational students.

Student's Perception towards Vocational Education
Perceptions of vocational education can be conceptualized as the recognition of vocational education, which Li and Xu (2018) define as an affirmative attitude of recognition, approval, and acceptance generated by the community based on their evaluation of vocational education. However, across the world, public opinion, students, parents, and relevant stakeholders have exhibited mixed views towards vocational education.

In some contexts, positive perceptions have been reported. For instance, in Indonesia, Kasim and Fachriah (2018) found favorable attitudes towards vocational education among parents, students, and human resources managers. Their study revealed that supervisors generally agreed that vocational graduates demonstrate competence and exhibit a high level of work ethic, making them more attractive candidates during the hiring process.

Despite such positive findings, negative perceptions persist in many other contexts. In China, despite strong governmental support for vocational education to aid economic restructuring and national development, the public still perceives vocational schools as inferior on the educational ladder (Hansen & Woronov, 2013). Zhang and Shi (2018) propose that perceptions of vocational education are significantly influenced by individuals' cost-benefit analysis of investing in this educational path. This economic perspective suggests that people evaluate the potential returns on their educational investments when making choices. Esekheigbe (2019) found that the public still predominantly views vocational education as a pathway leading to less privileged career paths, lacking in prestige, and typically associated with low-income jobs. This perception creates a self-reinforcing cycle, as long as vocational education is perceived as offering lower returns on investment compared to academic education, it continues to be undervalued and stigmatized. Consequently, this negative perception may deter potential students from choosing vocational tracks, perpetuating the stereotype and potentially limiting the development of a skilled workforce in various technical fields.

The perception of vocational education significantly influences students' academic motivation (Zhong, 2018). Negative attitudes towards vocational education have been shown to adversely affect the academic motivation of students in vocational schools (Wang, 2014). Yan (2019) observed that vocational school students often exhibit low academic motivation, primarily attributing this to the prevalent negative perceptions of vocational education. Furthermore, Sun, Chun, et al. (2022) demonstrated that negative views of vocational education negatively impact the academic behaviors of vocational students, which reflected in poor study habits, diminished capacity for independent learning, and insufficient academic motivation.

This study investigates the influence of vocational college students' perceptions of their educational environment and their academic motivation. Specifically, it examines how students' understanding of vocational education's social role, developmental trajectory, and value creation potential may predict their academic engagement that contributing to a deeper understanding of the factors influencing educational outcomes in vocational settings.

Methodology

This study took correlational research as the research design. Correlational research is a non-experimental research method in which the independent variables do not need to be manipulated (Johnson & Christensen, 2019). The study population for this research consists of students from the Guizhou Culture and Tourism Vocational College. This full-time, public higher education institution is authorized by the People's Government of Guizhou Province and operates under the direct supervision of the Guizhou Provincial Department of Culture and Tourism. The college, serving as a national training hub for tourism talents, combines education, training, and skills assessment. It is situated in the Qingzhen Vocational Education City of Guizhou Province, spanning an area exceeding 300 acres. The participants were recruited using a convenience sampling method. The research sample size was determined using the sample size table devised by Krejcie and Morgan (1970). Considering the current student population of 1,415, the recommended sample size for this study is 302 students.

Research Instrument

This study employed three widely recognized scales to measure perceived social support, academic motivation, and perceptions of vocational education. All questionnaires were translated into Chinese. The questionnaire was prepared using Wenjuanxing platform and disseminated online via WeChat, ensuring efficient distribution and collection.

The 28-item Academic Motivation Scale (AMS) was developed by Vallerand et al. (1992) to measure three main aspects of academic motivation, namely intrinsic motivation, extrinsic motivation, and amotivation. The scale employs a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The scores for the items in the subscale amotivation are reversed to ensure consistency with other subscales and to accurately reflect the level of academic motivation. Total scores range from 28 to 196, with higher mean scores indicating higher levels of academic motivation. The reliability of the subconstructs, as measured by Cronbach's alpha coefficient, ranges from .79 to .97, with an overall Cronbach's alpha of .96, demonstrating high internal consistency.

The Child and Adolescent Social Support Scale (CASSS), adapted from Malecki et al. (2002) and revised by Yang et al. (2010), evaluates perceived social support received by vocational college students. The scale comprises five subscales gauging perceived support from parents, teachers, peers, friends, and school, each probing four dimensions: emotional, informational, evaluative, and instrumental support. Each subscale contains 12 items assessed on a 6-point Likert scale ranging from 1 (never) to 6 (always). Higher mean scores indicate higher perceived social support. The findings from pilot study indicated that the Cronbach's alpha values for individual dimensions range between .97 and .99, with an overall alpha of .99, indicating exceptional internal consistency.

The Image of Vocational Education Training Scale (IVET), adapted from Dang (2014), was modified to examine perceptions of students at the Guizhou Culture and Tourism Vocational College. The scale consists of 52 items across seven subconstructs: low entry qualification, quality of training facilities and equipment, trainer credibility, recognition of qualification, student career and job potential, applicability of course content, and work ethics, social values, and soft skills. Items are measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with some items requiring reverse scoring. Higher mean scores indicate a more positive image of vocational education. Cronbach's alpha coefficients for subconstructs range from .71 to .97, with an overall alpha of .99, demonstrating high internal consistency.

IBM SPSS Statistics 29.0 software was used for statistical analysis. Descriptive statistical analysis of academic motivation, perceived social support, and perception of vocational education provides understanding towards the current situation of vocational school students. This was followed by multiple regression analysis to examine the influences of social support and perception of vocational education on students' academic motivation.

Results and Analysis
A total of 434 sets of questionnaires were randomly distributed to students at Guizhou Culture and Tourism Vocational College, of which 408 questionnaire responses were valid for analysis. The sample comprised 266 (65.2%) female and 142 (34.8%) male respondents. Based on the responses, 187 respondents (45.8%) were 19 years old or younger, 118 respondents (28.9%) were aged 20 and 103 respondents (25.3%) were 21 years or older.

The Academic Motivation Scale (AMS) was employed to assess seven key aspects of students' academic motivation. As shown in Table 1, the mean scores for the AMS components were as follows: intrinsic motivation to know (M = 4.65, SD = 1.02), intrinsic motivation towards accomplishment (M = 4.38, SD = 1.09), intrinsic motivation to experience stimulation (M = 4.49, SD = 1.04), identified regulation (M = 4.67, SD = 1.04), introjected regulation (M = 4.30, SD = 1.08), external regulation (M = 4.68, SD = 0.98), and amotivation (M = 4.47, SD = 1.42).

The highest-scoring sub-dimensions were external regulation and identified regulation within the extrinsic motivation category, with means of 4.68 (SD = 0.98) and 4.67 (SD = 1.04) respectively. With individual component means ranging from 4.30 to 4.68, and an overall mean score of 4.52 (SD = 0.77), the findings indicate a moderate to moderately high level of academic motivation among the students.

The Image of Vocational Education Training Scale (IVET) examined seven key aspects of students' perception towards vocational education. Table 3 presents the descriptive statistics for each dimension. The mean scores for the seven IVET components were as follows : entry qualification (M = 3.70, SD = 0.81), training facilities and equipment (M = 3.47, SD = 0.73), trainer credibility (M = 3.60, SD = 0.71), recognition of qualification (M = 3.34, SD = 0.49), career and job potential for students (M = 3.30, SD = 0.38), applicability of course content (M = 3.39, SD = 0.54), and work ethics, social values, and soft skills (M = 3.49, SD = 0.64). Among these dimensions, entry qualification and trainer credibility received the highest ratings, with means of 3.70 (SD = 0.81) and 3.60 (SD = 0.71) respectively. With individual

component means ranging from 3.30 to 3.70, and an overall mean score of 3.44 (SD = 0.46), the results suggest a moderately positive perception of vocational education among the students.

The Child and Adolescent Social Support Scale (CASSS) measure five main domains of image of social support, Table 2 presents the descriptive statistics for each dimension. The mean scores of CASSS components were parents (M = 3.73; SD = 1.13), teachers (M = 3.74; SD = 1.08), classmates (M = 3.78; SD = 1.09), close friend (M = 4.04; SD = 1.15), and people in school (M = 3.35; SD = 1.26). Among these dimensions, close friend and classmates received the highest ratings, with means of 4.04 (SD = 1.15) and 3.78 (SD = 1.09) respectively. With individual component means ranging from 3.35 to 4.04, and an overall mean score of 3.73 (SD = 0.96), the results indicated that the vocational college students perceived they received a moderate level of social support from their social environment.

Table 1

Descriptive Statistics for Vocational College Students' Academic Motivation

AMS	Mean	Std. Deviation	Level
External regulation	4.6808	.98512	Moderate
Intrinsic motivation to know	4.6563	1.02530	Moderate
Identified regulation	4.6795	1.04862	Moderate
Intrinsic motivation to experience stimulation	4.4988	1.04491	Moderate
Amotivation	4.4700	1.42358	Moderate
Intrinsic motivation towards accomplishment	4.3805	1.09274	Moderate
Introjected regulation	4.3064	1.08310	Moderate
Overall	4.5246	.77602	Moderate

Table 2

Descriptive Statistics of Perceived Social Support among Vocational College Students

CASSS	Mean	Std. Deviation	level
Parents	3.7316	1.13318	Moderate
Teachers	3.7420	1.08078	Moderate
Classmates	3.7821	1.08622	Moderate
Close friend	4.0443	1.14548	Moderate
People in school	3.3562	1.25735	Moderate
Overall	3.7313	.96842	Moderate

Table 3

Descriptive Statistics of Students' Perceptions towards Vocational Education

IVET	Mean	Std. Deviation	level
Low entry qualification	3.7089	.81618	High
Quality of training facilities and equipment	3.4779	.73302	Moderate
Trainer credibility	3.6093	.71310	Moderate
Recognition of qualification	3.3459	.49220	Moderate
Student career and job potential	3.3071	.38006	Moderate
Applicability of course content	3.3968	.54036	Moderate
Work ethics	3.4996	.64213	Moderate
Overall	3.4482	.46221	Moderate

Multiple regression analysis was conducted to examine the predictive power of perceptions of vocational education and perceived social support towards academic motivation among students at Guizhou Culture and Tourism Vocational College. The model summary in Table 4 reveals that perceived social support and perceptions of vocational education collectively explain 48.4% of the variance in academic motivation (R^2 = .487, Adjusted R^2 = .484).

Table 4
Model summary of predicting academic motivation based on perception toward vocation education and perceived social support

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.698	.487	.484	.55717	2.042

a. Predictors: (Constant), IVET, CASSS
b. Dependent Variable: AMS

The ANOVA results (Table 5) indicate a significant regression model ($F_{(2, 405)}$ = 192.260, $p < .001$), suggesting that at least one of the two predictor variables (perceived social support and perceptions of vocational education) significantly explains variance in academic motivation.

Table 5
ANOVA of Academic Motivation Based on Perceptions of Vocational Education and Perceived Social Support

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	119.370	2	59.685	192.260	.000b
	Residual	125.728	405	.310		
	Total	245.099	407			

a. Dependent Variable: AMS
b. Predictors: (Constant), IVET, CASSS

Table 6 presents the regression coefficients. Both perceived social support (b = 0.252, β = 0.315, $p < .001$) and perceptions of vocational education (b = 0.822, β = 0.489, $p < .001$) significantly and positively predict academic motivation. The resulting regression equation is: Academic Motivation = 0.751 + 0.252(perceived social support) + 0.822(perceptions of vocational education)

Table 6
Coefficient Table for Multiple Regression

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	.751	.208		3.610	.000	.342	1.160
	CASSS	.252	.033	.315	7.740	.000	.188	.316
	IVET	.822	.068	.489	12.042	.000	.688	.956

a. Dependent Variable: AMS

The overall regression model is statistically significant (R^2 = 0.487, $F(2, 405)$ = 192.260, $p < .001$). Both perceived social support (β = 0.315, $p < .001$) and perceptions of vocational education (β = 0.489, $p < .001$) emerge as significant predictors of academic motivation.

Discussion

The primary objective of this study was to determine the influences of perceived social support and vocational college students' perceptions towards vocational education on their academic motivation. This study also examines the level of academic motivation, perceived social support and perceptions towards vocational students at Guizhou Culture and Tourism Vocational College. The results indicate that vocational school students exhibit moderate levels of academic motivation, perceived social support, and perception toward vocational education.

The study reveals that vocational students' academic motivation is at an intermediate level, consistent with prior research (Yang & Zhao, 2016; Wang, 2019). Current analysis of the Academic Motivation Scale (AMS) results indicates that vocational students are slightly more extrinsically motivated than intrinsically motivated. This finding corroborates Wu et al.'s (2010) study and aligns with observations about students being generally more responsive to external motivators (Cain et al., 2012). The implications of this are significant for educational practice, suggesting that carefully designed external motivators (e.g., structured assessments, tangible rewards, clear career pathways) may be particularly effective in enhancing academic motivation among vocational students. However, the small difference between intrinsic and extrinsic motivation levels also suggests a need for a balanced approach that nurtures both forms of motivation. Educators and policymakers should consider strategies that not only provide external incentives but also foster intrinsic interest in vocational subjects and career paths.

The study's findings reveal that students' perceptions of vocational education are at a moderate level, which warrants careful consideration. The Image of Vocational Education Training Scale (IVET) results provide valuable insights into various aspects of these perceptions. Consistent with past literatures, this study also found out that students are worried about the recognition of qualification as well as their career and job potential. The lower score in these dimensions might reflect ongoing challenges in the broader recognition and acceptance of vocational qualifications in society and the job market. At the same time, these moderate perceptions should be interpreted within the broader societal context. As noted by Liu & Liu (2023), students' educational choices and perceptions are influenced by societal attitudes and individual judgments about the image and accessibility of different educational pathways. The persistent view of vocational education as inferior to general education, as highlighted by Yao & Li (2023), likely contributes to these moderate perception levels.

This study also measured the level of perceived social support of vocational college students from five sources: the students' parents, teachers, close friends, classmates and people in school. As a whole, the perceived social support of vocational students in this study was moderate, and the results were similar to those of Liu et al.,(2020) and Xie (2020). In the modern era, vocational students are experiencing heightened attention from a diverse range

of sources, and their path towards obtaining social support has been significantly simplified. Therefore, they are more readily to seek for social support to facilitate their academic life.

The key findings from regression analysis reveals a significant positive relationship between perceived social support and academic motivation. This finding is consistent with recent studies (Wang, 2023; Yuan, 2023; Kou, 2023) and underscores the critical role of social support in educational contexts. The work of Wentzel et al. (2010) and Raufelder et al. (2013) further supports this, demonstrating that academic motivation is highly responsive to social factors, particularly support from teachers and peers. These results highlight the importance of creating supportive educational environments in vocational institutions. Strategies might include enhancing teacher-student relationships, fostering peer support networks, and involving families in the educational process. Moreover, the findings suggest that interventions aimed at improving social support could have cascading positive effects on academic motivation and, consequently, on academic performance and retention rates in vocational education.

On the other hand, this study found a significant and strong predictive power of students' perceptions of vocational education on their academic motivation. This predictive relationship is particularly noteworthy given the often-negative societal attitudes towards vocational education (Yao & Li, 2023; Zhang & Wang, 2024). The results suggest that when students hold more positive views of vocational education, they are likely to exhibit higher levels of academic motivation. This finding underscores the importance of students' perceptions in shaping their academic engagement and motivation within vocational education settings.

However, this finding must be contextualized within broader societal attitudes. As Liu & Liu (2023) note, students' educational choices are influenced by their perceptions of the image and accessibility of different educational pathways. The persistent view of vocational education as inferior to general education or as a path for academically underperforming students (Yao & Li, 2023; Zhang & Wang, 2024) likely contributes to the moderate levels of perception and motivation observed in study, despite the strong predictive relationship.

These findings underscore the need for concerted efforts to improve the image of vocational education at both societal and individual levels. Given the significant impact of perceptions on motivation, interventions aimed at enhancing the image of vocational education could yield substantial benefits in terms of student motivation and engagement. This could involve public awareness campaigns, showcasing successful vocational education graduates, and providing clear information about career prospects in vocational fields. By improving perceptions, educators from vocational institutions may be able to leverage this predictive relationship to enhance academic motivation and, ultimately, student success in vocational education programs.

Although the research tried to be as rigorous and scientific as possible, this study still has its limitations. First of all, this study only focused on the impact of students' perceived social support and perceptions of vocational education on the academic motivation of vocational students, which means that there are other potential predictors that have not been explored. Secondly, the size of the population in this study was very small, and the

research samples are limited. Finally, the questionnaire of this study is subjectively adjusted by the researchers according to the special situation of vocational school students, and a more scientific and comprehensive cognitive questionnaire of vocational education can be used in future research.

Conclusion

This study reveals that vocational college students exhibit moderate levels of academic motivation, perceived social support, and perceptions toward vocational education. The findings demonstrate that both perceived social support and perceptions of vocational education significantly predict academic motivation, with both variables showing positive relationships. Academic motivation is crucial for students' success, as it fosters lifelong learning habits and prepares students to become effective workers and engaged citizens in the global economy. The predictive relationships uncovered in this study highlight the importance of addressing both social support structures and perceptions of vocational education to enhance students' academic motivation. This research offers valuable theoretical and practical insights for vocational education stakeholders, including policymakers, school administrators, teachers, and students. The findings underscore the need for a collaborative approach among these stakeholders to develop and sustain academic motivation in vocational school students. By focusing on improving social support systems and enhancing the image of vocational education, stakeholders can contribute to creating an environment that fosters higher levels of academic motivation. Implications of this study suggest that interventions aimed at boosting social support and improving perceptions of vocational education could yield significant benefits in terms of student motivation and, consequently, academic success. Future policies and practices in vocational education should consider these factors to create more supportive and motivating educational environments.

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References

Archambault, I., Vandenbossche-Makombo, J., & Fraser, S. L. (2017). Students' oppositional behaviors and engagement in school: The differential role of the student–teacher relationship. *Journal of Child and Family Studies, 26*, 1702–1712.

Billett, S. (2011). *Vocational education: Purposes, traditions and prospects.* Springer Science & Business Media.

Birch, S. H., & Ladd, G. W. (1997). The teacher-child relationship and children's early school adjustment. *Journal of School Psychology, 35*(1), 61–79.

Cain, J., Romanelli, F., & Smith, K. M. (2012). Academic entitlement in pharmacy education. *American Journal of Pharmaceutical Education, 76*(10).

Caplan, G. (1974). *Support systems and community mental health: Lectures on concept development.* Behavioral Publications.

Cedefop. (2014). *Attractiveness of initial vocational education and training: Identifying what matters* (Research Paper No. 39).

Chen, J. W. (2014). *Teachers' autonomy support and junior high school students' learning: The influence of family social class and autonomous motivation* (Master's thesis). Central China Normal University.

Chi, X. L. (2017). *Research on the impact mechanism of teacher support on college students' learning engagement based on self-determined motivation theory.*

Christenson, S. L., & Reschly, A. L. (2012). Check & Connect: Enhancing school completion through student engagement. In *Handbook of youth prevention science* (pp. 327–348). Routledge.

Chun, W. S. D., Yau, S. H. T., Leung, C. Y. I., Tang, H. H. H., & Hui, H. W. (2022). From deindustrialization to reindustrialization: A repositioning of vocational education and training in Hong Kong. In *Applied degree education and the future of learning* (pp. 517–539). Springer Nature Singapore.

Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine, 38*(5), 300–314.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*(2), 310–357.

Creswell, J. W. (2002). *Educational research: Planning, conducting, and evaluating quantitative research* (Vol. 7). Prentice Hall.

Cutrona, C. E., & Russell, D. W. (1987). The provisions of social relationships and adaptation to stress. *Advances in Personal Relationships, 1*(1), 37–67.

Cutrona, C. E., & Russell, D. W. (1990). Type of social support and specific stress: Toward a theory of optimal matching.

Dang, V. H. (2014). Vietnamese students' perception and loyalty towards an image of vocational education and training. *Journal of Education and Vocational Research, 5*(4), 228–238.

Dasmani, A. (2011). Challenges facing technical institute graduates in practical skills acquisition in the Upper East Region of Ghana. *International Journal of Work-Integrated Learning, 12*(2), 67–81.

Du, G., & Lyu, H. (2021). Future expectations and internet addiction among adolescents: The roles of intolerance of uncertainty and perceived social support. *Frontiers in Psychiatry, 12*, 727106.

Dzigbede, F. K. K. (2009). *Challenges in the administration of technical vocational education and training in the Ghana Education Service* (Doctoral dissertation). University of Cape Coast.

Epstein, J. L. (1992). School and partnerships. In *Encyclopedia of educational research*. Macmillan.

Esekheigbe, N. A. (2019). Public perception of vocational and technical education and youth unemployment in Nigeria. *Journal of Humanities and Social Studies.* https://doi.org/10.24940/THEIJHSS/2019/V7/I12/HS1912-062

Essel, O. Q., Agyarkoh, E., Sumaila, M. S., & Yankson, P. D. (2014). TVET stigmatization in developing countries: Reality or fallacy?

Feng, X. L. (2022). *The impact of high school students' gratitude on learning engagement* (Master's thesis, Shanxi University). [URL as provided]

Gao, X. M. (2020). Characteristics of contemporary college students' learning motivation and its impact on academic performance. *Explorations in Higher Education.*

Hansen, M. H., & Woronov, T. E. (2013). Demanding and resisting vocational education: A comparative study of schools in rural and urban China. *Comparative Education, 49*(2), 242–259.

Hartley, C., & Coffee, P. (2019). Perceived and received dimensional support: Main and stress-buffering effects on burnout. *Frontiers in Psychology, 10*, 1724.

He, H. L. (2016). *Research on the relationship between parental learning support and learning self-control of junior high school students* (Master's thesis). Minnan Normal University.

House, J. S. (1983). *Work stress and social support.* Addison-Wesley.

Huang, W. M., & Zhou, Y. G. (2007). A study on the adjustment problems and educational countermeasures of university freshmen. *Chinese School Medicine, 21*(1), 113–114.

Johnson, R. B., & Christensen, L. (2019). *Educational research: Quantitative, qualitative, and mixed approaches.* Sage.

Kerres Malecki, C., & Kilpatrick Demary, M. (2002). Measuring perceived social support: Development of the CASSS. *Psychology in the Schools, 39*(1), 1–18.

Killilea, M. L., & Caplan, G. (Eds.). (1976). *Support systems and mutual help: Multidisciplinary explorations.* Grune & Stratton.

Kou, Z. M. (2023). *Research on the relationship between English major students' learning motivation and perceived social support* (Master's thesis). Shanxi University of Finance and Economics. [URL as provided]

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*(3), 607–610.

Li, & Yan. (1993). *Educational psychology.* East China Normal University Press.

Li, M. L., & Xu, T. (2018). Review and foresight: A study on the social identity of vocational education. *Vocational Education Forum, 11*, 18–23.

Liu, H. M., & Liu, Z. W. (2023). The construction logic of the Dutch vocational education system: Analysis based on the three-factor framework. *Educational Theory and Practice, 12*, 24–28.

Liu, J. L., Cui, Y. L., Tian, J. Y., & Qu, L. L. (2023). Academic burnout, perceived social support, and psychological capital among medical master's students. *Health Vocational Education, 24*, 128–132. https://doi.org/10.20037/j.issn.1671-1246.2023.24.38

Luo, Y. L. (2024). Secondary vocational English teaching based on positive psychology. *Western Quality Education, 02*, 195–198. https://doi.org/10.16681/j.cnki.wcqe.202402045

Malecki, C. K., & Elliott, S. N. (1999). Adolescents' ratings of perceived social support and its importance. *Psychology in the Schools, 36*(6), 473–483.

Martinot, D., Sicard, A., Gul, B., Yakimova, S., Taillandier-Schmitt, A., & Maintenant, C. (2022). Peers and teachers as sources of support for school engagement. *Frontiers in Psychology, 13*, 958286.

Ma, Y., & Chen, W. (2024). Practice and thinking of peer assistance mentorship system. *Global Humanities and Social Sciences.* https://doi.org/10.61360/bonighss242016380505

Mbambo, S. N. (2016). *Student expectations and perceptions about FET colleges* (Doctoral dissertation).

Moodie, G. (2008). *From vocational to higher education: An international perspective.* McGraw-Hill.

NICHE. (2010). *NICHE strategy on TVET.*

Procidano, M. E., & Heller, K. (1983). Measures of perceived social support. *American Journal of Community Psychology, 11*(1), 1–24.

Qie, W. P. (2022). *The relationship between adolescents' understanding of social support and learning motivation* (Master's thesis, Hebei University). [URL]

Raufelder, D., Jagenow, D., Drury, K., & Hoferichter, F. (2013). Social relationships and motivation types. *Learning and Individual Differences, 24*, 89–95.

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic academic motivations. *Contemporary Educational Psychology, 25*(1), 54–67.

Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2008). *Motivation in education* (3rd ed.). Pearson.

Shumaker, S. A., & Brownell, A. (1984). Toward a theory of social support. *Journal of Social Issues, 40*(4), 11–36.

Tezci, E., Sezer, F., Gurgan, U., & Aktan, S. (2015). Social support and motivation. *The Anthropologist, 22*(2), 284–292.

Tlapana, T., & Myeki, Z. (2020). Students' perceptions of TEVT colleges. *Global Media Journal, 18*(35), 1–4.

Turner, R. J., Frankel, B. G., & Levin, D. M. (1983). Social support: Conceptualization and implications. *Research in Community & Mental Health.*

Wang, X. (2024). Learning motivation and major choice. *Journal of Education, Humanities and Social Sciences, 29*, 214–222. https://doi.org/10.54097/91kf9485

Wang, G. P., Li, Y. Y., & Dawulati, Z. (2023). Mental health and social support of open university students. *Journal of Xinjiang Open University, 02*, 1–6. https://doi.org/10.20110/j.cnki.CN65-1323/G4.2023.02.001

Wang, H. Q. (2023). *Junior high students' math learning motivation and social support* (Master's thesis, Qinghai Normal University). [URL]

Wang, S. (2019). Learning motivation of vocational students. *Contemporary Tourism, 04*, 197.

Wang, J., Mann, F., Lloyd-Evans, B., Ma, R., & Johnson, S. (2018). Loneliness, social support and mental health outcomes. *BMC Psychiatry, 18*(1), 1–16.

Wang, M. T., & Eccles, J. S. (2012). Longitudinal effects of social support. *Child Development, 83*(3), 877–895.

Wang, M. T., & Holcombe, R. (2010). Perceptions of school environment and engagement. *American Educational Research Journal, 47*(3), 633–662.

Wei, T. (2014). Internal and external motivation in English speaking learning. *Collection, 34.*

Wentzel, K. R., Battle, A., Russell, S. L., & Looney, L. B. (2010). Social support as predictor of motivation. *Contemporary Educational Psychology, 35*(3), 193–202.

Wentzel, K. R., Russell, S., & Baker, S. (2016). Emotional support and adolescent competence. *Journal of Educational Psychology, 108*(2), 242–257.

Wills, T. A., Blechman, E. A., & McNamara, G. (2014). Family support, coping, and competence. In *Stress, coping, and resiliency in children and families* (pp. 107–134). Psychology Press.

Wu, C. Y. (2018). *The impact of social support on students' learning persistence.*

Wu, P. L., Hsiao, H. C., Wu, W. H., Lin, C. H., & Huang, S. H. (2010). Technical and vocational students' motivation in IT courses. *International Journal of Learning, 17*(8).

Xuejun, L., Xianjun, S., & Qin, H. (2022). Discrimination perception and career exploration. *Frontiers in Psychology, 13*. https://doi.org/10.3389/fpsyg.2022.968032

Peng, X., Sun, X., & He, Z. (2022). Influence of teacher and parent support. *Frontiers in Psychology.* https://doi.org/10.3389/fpsyg.2022.863740

Xie, L. (2018). *Conflict management in China's higher education.*

Yan, Y. (2019). Learning motivation in vocational students. *Journal of Wuhan Shipbuilding Vocational and Technical College, 3.*

Yang, C. J., & Zhao, N. (2016). Learning motivation in higher vocational students. *Xinjiang Vocational Education Research, 3*, 87–91.

Yang, F., Lin, M. Y., & Qian, M. Y. (2010). Social support and post-traumatic growth. *Chinese Journal of Clinical Psychology, 5*, 614–617.

Yao, Z. J., & Li, J. (2023). Integration of vocational education. *Vocational Education Development Research, 04*, 16–24.

Yan, Z., Lu, H., & Ma, W. (2024). Peer support and academic adjustment. *Preprints.* https://doi.org/10.20944/preprints202404.0462.v1

Yuan, B. (2023). *Relationship between meaning of life, learning motivation and social support among senior university students* (Master's thesis). Shanghai Normal University. [URL]

Zhang, A. (1999). *Academic motivation theory: Psychological research toward the 21st century.*

Zhang, H. L. (2020). *Impact of social support on employability* (Master's thesis). [URL]

Zhang, Y. C., & Wang, W. D. (2024). Institutional construction of undergraduate vocational education. *Heilongjiang Higher Education Research, 02*, 137–142.

Zhang, Z. J., & Shi, J. L. (2018). Higher vocational students' perceptions of vocational education. *Journal of Jincheng Vocational and Technical College, 05*, 56–60.

Zhao, S. P., & Wang, L. J. (2013). Motivation of non-English majors. *Journal of Educational Scholarship, 10*, 108–111.

Zheng, Z., & Mustappha, S. M. (2023). Learning motivation and academic achievement in Anhui vocational colleges. *Asian Journal of Research in Education and Social Sciences.* https://doi.org/10.55057/ajress.2023.5.3.15

Zhong, J. (2018). Factors influencing learning motivation of non-English majors. *Journal of Heilongjiang Institute of Education, 37*(12), 67–69.

Zhou, Z., & Zhou, J. (2021). Academic innovation process elements. *Heilongjiang Higher Education Research, 06*, 95–100.

Zhou, L. H., Ntoumanis, N., & Thøgersen-Ntoumani, C. (2019). Autonomy support and student engagement. *Contemporary Educational Psychology, 58*, 323–330.

Zulu, N. G. (2017). *Effectiveness of language in marketing and advertising of TVET colleges* (Doctoral dissertation).