English Teaching, Vol. 79, No. 4, Winter 2024, pp. 191-211
DOI: https://doi.org/10.15858/engtea.79.4.202412.191
http://journal.kate.or.kr

The Impact of Teacher Support on Chinese University Students' Motivational Beliefs in EFL College Classrooms

Xiaohui Zhang and Hyun-Ju Kim*

Zhang, Xiaohui, & Kim, Hyun-Ju. (2024). The impact of teacher support on Chinese university students' motivational beliefs in EFL college classrooms. *English Teaching, 79*(4), 191–211.

This study investigated the relationship between teacher support in the areas of learner autonomy, relatedness, and competence, and motivational beliefs regarding achievement goal orientations and perceived task value in Chinese EFL college classrooms based on self-determination theory. A questionnaire was administered to 712 college students, and the data were analyzed using SPSS 26.0 and AMOS 24.0. The findings indicated that teacher support for autonomy, relatedness, and competence was positively correlated with mastery goal orientation and performance-approach orientation, while it was negatively correlated with performance-avoidance orientation. Furthermore, these forms of teacher support positively influenced students' perceived task value. Achievement goal orientation mediated the relationship between the three types of teacher support and student engagement. However, perceived task value only mediated the relationship between teacher autonomy support and student engagement. This study offers valuable insights for enhancing English teaching practices by promoting student motivation through addressing their psychological needs in EFL college classrooms.

Key words: teacher support, motivational beliefs, achievement goal orientation, perceived task value, student engagement, EFL college classrooms

*First Author: Xiaohui Zhang, Lecturer, School of Foreign Languages, Shangqiu Normal University

Corresponding Author: Hyun-Ju Kim, Professor, Department of British and American Humanities, Dankook University; 152, Jukjeon-ro, Suji-gu, Yongin-si, Gyeonggi-do 16890, Korea; Email: hyunjukim@dankook.ac.kr

Received 30 September 2024; Reviewed 28 October 2024; Accepted 12 December 2024

1. INTRODUCTION

Teacher support is an external factor influencing students' internal motivational beliefs (Sadoughi & Hejazi, 2021). Student-teacher relationships and interactions are essential in impacting students' academic development. A supportive relationship fosters students' learning motivation, enhances engagement, deepens understanding, and promotes collaboration. In college EFL classrooms, students are more likely to succeed in language learning when a supportive environment enhances their motivation (Liu, Du, & Lu, 2023).

Admittedly, in AI times, some students perceive that learning English is not as important and necessary as before, and this perception impacts students' English learning motivation (Weissman, 2023). Moreover, in teaching practice, teachers tend to rely on standardized methods without adequately addressing students' diverse English proficiency levels, individual needs, emotional states, and task relevance, which often makes students disinterested (Gao, Liu, & Wang, 2014). Without interest, the intrinsic drive for learning cannot develop, and active engagement cannot be sustained. Therefore, the teacher's role is essential in cultivating students' learning motivation.

To address this issue, fostering students' English learning motivation and exploring how teachers influence their learning motivation in EFL classrooms are of great importance. Self-Determination Theory (SDT) puts forward the significance of fulfilling psychological needs satisfaction (need for autonomy, relatedness, and competence) in learning environments (Deci & Ryan, 1985). Meeting these psychological needs fosters students' self-driven motivation and promotes self-directed learning behaviors. Therefore, SDT provides a solid theoretical foundation for understanding how teachers motivate students to learn. To foster these inherent psychological needs, teachers should embrace a need-supportive instructing approach that prioritizes supporting these needs. This approach is characterized by focusing on providing learners with chances for self-decision-making, showing care and affection, and offering clear expectations and constructive feedback. Corresponding to students' basic psychological needs, teacher support manifests as autonomy support, relatedness support, and competence support.

Teacher support can impact students' learning behaviors or engagement in EFL classrooms by influencing their personal motivational beliefs. These beliefs act as intermediaries for the effect of teacher support on students' learning actions. Some motivational beliefs are widely recognized as crucial for nurturing students' intrinsic interests and serve as significant key determinants of involvement in the learning process (Collie & Martin, 2019). The motivational beliefs investigated in this study include students' goal orientations and subjective task value. According to achievement goal orientation theory, students' goal orientation refers to the underlying reasons that drive them to engage in a particular situation (Elliot, MaGregor, & Gable, 1999). These reasons may be to learn

which is defined as a mastery goal orientation; to do better than others which is defined as a performance-approach goal orientation; or to avoid failure which is defined as a performance-avoidance goal orientation. In detail, students who have mastery learning goals prioritize acquiring new skills and knowledge, tend to show greater persistence after failure compared to those with performance goals. Mastery goal orientation affects students' cognitive engagement and positively predicts in-depth processing, whereas the performance goal positively predicts surface processing. Additionally, according to expectancy-value theory, students' subjective task value refers to their belief in the worthiness of completing a task (Eccles, Wigfield, Harold, & Blumenfeld, 1993). Students are more likely to invest significant time and effort in a task when they perceive it as valuable.

This study examines the effects of teacher support on non-English majors' motivational beliefs in the context of EFL higher education in China. It aims to explore the mechanisms of how teacher support influences students' learning through motivational belief variables. This research expects to offer guidance for developing effective educational policies to improve college English teaching effectiveness among non-English majors in China. To address the purpose of this study, the researchers raised the following two questions:

1) How does teacher support impact Chinese non-English majors' motivational beliefs in EFL classrooms?
2) How do these motivational beliefs subsequently affect Chinese university students' learning engagement in EFL classrooms?

2. LITERATURE REVIEW AND HYPOTHESIS

2.1. Teacher Support based on SDT

SDT provides a motivational foundation for positive school functioning (Ryan & Deci, 2017), and it is supported by a growing body of empirical evidence (e.g., Aelterman et al., 2019; Mouratidis, Michou, Aelterman, Haerens, & Vansteenkiste, 2018). Basic psychological needs theory (a sub-theory of SDT) states that self-determination is shaped and enhanced by supportive social environments. When the school environment effectively supports students' basic needs for autonomy, relatedness, and competence, students exhibit stronger autonomous motivation, adaptive learning behaviors, positive academic emotions, and outstanding academic performance (Núñez & León, 2019). It can drive them to seek novelty, pursue challenges, expand their capabilities, and learn actively.

Regarding the three basic psychological needs, the first component, *the need for autonomy* refers to the desire to perceive one's behavior as originating from and being endorsed by

oneself (Deci & Ryan, 1985). Teacher autonomy support enhances students' ability to take charge of their own learning (Haw & King, 2022). When individuals are driven by their own decisions, they tend to show greater engagement and better performance compared with situations where their actions are dictated by others. The opposite concept of autonomy support is autonomy thwart. In college-level EFL classrooms, students experience a heightened sense of autonomy when their learning processes incorporate psychological freedom, mental flexibility, and opportunities for making choices (Reeve, Nix, & Hamm, 2003).

The second component, *the need for relatedness* refers to the need to be connected to a person or a group. It is the sense of belonging and attachment (Ryan & Deci, 2017), reflecting the desire to be interpersonally involved in caring, warm, safe, efficacious, autonomous, and responsive relationships. Teacher relatedness support internalizes students' experience and evinces greater motivation (Ryan & Deci, 2020). The opposite concept of relatedness support is disaffection. In college EFL classrooms, teachers should select learning materials that can evoke emotional resonance, and appropriately share personal emotions as well as experiences which can help to bridge the psychological gap with students and establish emotional resonance.

The third component, *the need for competence* refers to the desire to be effective in one's activities and interactions with the environment, and is associated with feeling capable of meeting a challenging goal (Haw & King, 2022). Fulfilling competence needs can forecast performance outcomes, as developing and showcasing one's skills is deeply satisfying (Deci & Ryan, 1985). Teacher competence support entails establishing a structured learning environment that enables students to grow and effectively tackle learning challenges. The opposite concept of structure support is chaos. In college EFL classrooms, teachers can create a structured environment by defining clear objectives and expectations for learning, providing tasks that match students' abilities, and offering feedback that fosters students' confidence and sense of achievement (Reeve, 2016).

A study found that second-language teachers in Colombia adjust their pedagogical approaches to be more need-supportive, leading students to not only recognize these changes but also to adopt more autonomous motivation (Niemiec & Muñoz, 2019). Another study in Turkey showed that need-supportive EFL teacher behaviors promote Turkey students' intrinsic motivation to speak English (Dincer & Yesilyurt, 2017). Therefore, when pedagogical design effectively meets these psychological needs, students become genuinely motivated to be involved in learning activities. College English teachers should cater to students' basic psychological needs and provide appropriate support to effectively guide their well-being motivational beliefs, and further promote their motivation and engagement in the learning process.

2.2. Motivational Beliefs

This study investigates two theories of motivation: goal orientation based on achievement goal orientation theory (AGO), and perceived task value based on expectancy-value theory (EVT).

2.2.1. Achievement goal orientation

Achievement Goal Orientation (AGO) is regarded as one's disposition when responding to tasks and explains how they orient themselves in the pursuit of goals. Ames's study (1992) provides a framework of AGOs in two dimensions: mastery vs. performance goals. This framework is insufficient to explain all forms of goal orientations. The distinction between approach and avoidance orientations should also be taken into consideration within this dichotomous framework (Anderman & Patrick, 2012). Therefore, the framework preserved the original concept of mastery goals of Ames's dichotomous framework, but sub-divided performance goals into two types: performance-approach goal and performance-avoidance goal (Shyr, Feng, Zeng, Hsieh, & Shih, 2017), which form a trichotomous framework. Mastery goal is characterized as the goal "in which individuals focus on enhancing their competence," while performance goal is defined as the goal "in which individuals focus on obtaining positive judgments of their competence" (Dweck & Leggett, 1988, p. 256). Specifically, performance-approach goal refers to a focus on outperforming others, while performance-avoidance goal refers to students' desire to avoid looking incompetent (Middleton & Midgley, 1997).

In the EFL domain, research shows a close relationship between AGO and student learning behavior and outcomes. For instance, a study found that achievement goal significantly affects struggling English learners' engagement and reading comprehension, revealing that mastery and performance-avoidance goals mediate the relationship between mindset and reading ability (Cho, Toste, Lee, & Ju, 2019). Examining the influence of achievement goals and related processes in second language learning can shed light on L2 learners' motivation.

2.2.2. Perceived task value

Expectancy-value theory (EVT) posits that task value predicts individual's performance outcome, and is adopted to account for learners' motivational process (Geng, Lu, & Shu, 2023). Based on EVT, perceived task value, refers to students' belief in the worthiness of an academic task, which is a key component for understanding students' achievement behaviors and academic outcomes. Task value construct is further divided into four dimensions:

attainment value, intrinsic value, utility value, and cost (Wigfield et al., 1997).

Specifically, *attainment value* refers to the importance of performing well on a given task, and reflects how significant the task is to an individual's sense of identity. *Utility value* refers to the relevance or usefulness of a task, reflecting how it aligns with or contributes to an individual's future goals. *Intrinsic value* is the pleasure and satisfaction a person experiences while participating in a task. When students find intrinsic value in an activity, they will become highly engaged and can persist in it for extended periods. *Cost* refers to what an individual must sacrifice to complete a task, along with the expected effort required for its completion. However, scholars have paid less attention to the cost of tasks and believe that the correlation between task cost and other task values is not significant. Consequently, this study encompasses only three dimensions—attainment, intrinsic, and utility value, while excluding cost dimension.

In the EFL domain, research on task value beliefs among Korean female college students revealed that task value factor was a stronger predictor of students' midterm scores and enrollment intentions. Those who are intrinsically interested in the subject matter are more likely to pursue similar courses in the future (Bong, 2001). Another study shows that intrinsic task value positively predicted reading amount and reading achievement across different cultures (Geng et al., 2023). Furthermore, research examined how task value influence the motivation and academic outcomes of university students with a history of reading difficulties, revealing a significant correlation between students' subjective task values and their academic satisfaction and performance (Bergey, Parrila, & Deacon, 2018).

Cook (2016) argued two types of favorable motivations in EFL learning: integrative motivation (learning English to engage in the culture of its speakers, and it reflects whether students identify with the target culture) and instrumental motivation (learning the language for an ulterior motive unrelated to its use by native speaker). For integrative motivation, mastery goal orientations and intrinsic task value promote students' motivation to English learning. Learning a foreign language holds significance for students as it enables them to engage more actively and freely in the customs of other cultural communities.

2.3. Student Engagement

Student engagement, often described as the outward manifestation of motivation, refers to students actively participating in and dedicating themselves to the learning process. This study considers three dimensions of engagement. First, *behavioral engagement* involves positive conduct and participation in academic tasks (Appleton, Christenson, Kim, & Reschly, 2006). In language learning, this includes student interaction with teachers and peers, which is essential for progress. Second, *cognitive engagement* focuses on deep thinking and processes like sustained attention and self-regulation (Fredricks, Blumenfeld,

& Paris, 2004). Teachers can promote cognitive engagement through metacognition — encouraging students to reflect on their learning (Chick, 2013). Third, *emotional engagement* involves emotions like interest and anxiety that facilitate learning. In EFL classrooms, engagement improves when tasks are learner-designed or content is learner-generated (Butler, 2017). High engagement can lead to a state of "flow," marked by intense focus and involvement.

A study in Spanish classrooms revealed the occurrence of flow when teachers fostered challenge, interest, and a sense of control over the tasks (Egbert, 2003). Another study suggested that the three forms of teacher support have positive and direct impacts on the online interaction engagement of Chinese EFL learners (Liu & Guo, 2021).

3. METHODOLOGY

3.1. Participants

Participants in this study were 712 Chinese college non-English majors, enrolled at a teacher's university, studying liberal arts majors such as Chinese Language and Literature, Network and New Media, Pedagogy, Law, and History as well as scientific majors like Physics, Chemistry, Mathematics, Computer Science, and Life Science. Table 1 presents the participants' demographic details.

TABLE 1

The Number of Participants by Gender, Major, and Academic Year (*N* = 712)

Items	Category	*N*	%
Gender	Male	352	49.44
	Female	360	50.56
Major	Liberal Arts	348	48.88
	Science	364	51.12
Academic year	Freshman	231	32.44
	Sophomore	242	33.99
	Junior	239	33.57

3.2. Data Collection

The questionnaires were administered offline in China in May of 2024. Out of 750 questionnaires distributed across 10 majors, 744 completed responses were collected, resulting in a response rate of 99.2%. After excluding 32 invalid questionnaires (e.g., those with significant missing data, multiple selections for a single question, or systematic repeating patterns in responses), 712 valid questionnaires were retained for analysis,

resulting in an effective response rate of 95%.

3.3. Instrument

The instrument consists of four 5-point Likert scales covering teacher support, achievement goal orientation, perceived task value, and student engagement.

To verify the research hypothesis presented in this study, (1) teacher support scale is adapted from "Teacher as a Social Context Questionnaire" (TASCQ; Belmont, Skinner, Wellborn, & Connell, 1992); (2) achievement goal orientation scale is adapted from "Scale of Patterns of Adaptive Learning Survey" (PALS) (Midgley et al., 1998); (3) task value scale includes attainment task value and utility task value adapted from Wigfield and Eccles (1992), as well as utility task value adapted from Hulleman, Durik, Schweigert, and Harackiewicz (2008); (4) student engagement scale consists of behavioral engagement and emotional engagement adapted from Skinner, Kindermann, and Furrer (2009), as well as cognitive engagement adapted from Wolters (2004). A Cronbach's alpha coefficient greater than 0.7 is generally considered to indicate an acceptable level of reliability. Tables 2 through 5 show the specific items and Cronbach's alpha coefficients for the scales.

TABLE 2

Teacher Support

Cons.		Items	Cronbach's alpha
TS	TAS1	My English teacher offers me options for completing my assignments.	.817
	TAS2	My English teacher is always telling me what to do.	
	TAS3	My English teacher values my ideas.	
	TAS4	My English teacher discusses ways to apply what I learn in school.	
	TRS5	My English teacher is fond of me.	.644
	TRS6	My English teacher understands me.	
	~~TRS7~~	~~My English teacher takes time to interact with me.~~	
	TRS8	I cannot rely on my teacher for important matters.	
	~~TCS9~~	~~Whenever I make a mistake, my English teacher responds differently.~~	.767
	TCS10	My English teacher doesn't make his expectations for me clear.	
	TCS11	My English teacher teaches me how to solve problems on my own.	
	TCS12	My English teacher ensures I fully understand before moving on.	

Note. TS = Teacher Support, TAS = Teacher Autonomy Support, TRS = Teacher Relatedness Support, TCS = Teacher Competence Support

TABLE 3

Achievement Goal Orientation

Cons.		Item	Cronbach's alpha
GO	~~MAG1~~	~~It's important to me that I learn new knowledge in English class.~~	.677
	MAG2	One of my goals in class is to learn as much as possible.	
	~~MAG3~~	~~One of my goals is to develop a wide range of new skills in English class.~~	
	MAG4	It's essential for me to have a deep understanding of my coursework.	
	MAG5	It's essential for me to enhance my English skills this year.	
	PApG6	I care about having my classmates view me as competent in my schoolwork.	.705
	PApG7	One of my objectives is to demonstrate to others that I excel in my schoolwork.	
	~~PApG8~~	~~One of my aims is to prove to others that I find classwork is effortless for me.~~	
	PApG9	One of my objectives is to appear more intelligent compared to my classmates.	
	~~PApG 10~~	~~It's important to me that I look smart compared to others in my class.~~	
	PAvG11	I care about not appearing unintelligent in class.	.817
	PAvG12	One of my aims is to ensure that others don't perceive me as lacking intelligence in class.	
	PAvG13	I want to make sure that my teacher doesn't see me as knowing less than my classmates.	
	~~PAvG14~~	~~One of my aims in class is to avoid seeming like I am having trouble with the work.~~	

Note. GO = Achievement Goal Orientation, MAG = Mastery-approach Goal Orientation, PApG = Performance-approach Goal Orientation, PAvG = Performance-avoidance Goal Orientation

TABLE 4

Perceived Task Value

Cons.		Items	Cronbach's alpha
TV	ATV1	Putting in the effort to excel in English class is worth to me.	.822
	ATV2	I believe I'm skilled at solving problems that require strong English skills.	
	ATV3	Achieving good grades in English matters to me.	
	UTV4	I can use what we are learning in English class in my other subjects.	.796
	~~UTV5~~	~~What I am learning in English class is relevant to my life.~~	
	UTV6	I believe that what we're studying in English class is valuable for me to learn.	
	UTV7	I can use what we are learning in English in real-life situation.	
	ITV 8	I find it interesting to work on English assignments.	.738
	ITV 9	I like doing English.	

Note. TV = Perceived Task Value, ATV = Attainment Task Value, UTV = Utility Task Value, ITV = Intrinsic Task Value

TABLE 5

Student Engagement

Cons.		Items	Cronbach's alpha
EG	BEG1	I put in a lot of effort to succeed in English class.	.645
	~~BEG2~~	~~I put in my best effort in English class.~~	
	BEG3	I take part in class discussion.	
	~~BEG4~~	~~I focus during class.~~	
	BEG5	I listen attentively when I am in English class.	
	CEG6	I try to relate what I am learning to my own experiences.	.845
	CEG7	I try to organize all different ideas and make them coherent when I study for English class.	
	CEG8	I try to connect what I'm learning to what I already know.	
	CEG9	I make up my own examples to help clarify the key concepts I study in English class.	
	~~EEG10~~	~~When I am in English class, I feel good~~.	.868
	EEG11	When we work on something, I feel interested.	
	EEG12	English class is fun.	
	EEG13	I task pleasure in learning new things in English class.	
	EEG14	I become actively involved when we work on something in English class.	

Note. EG = Student Engagement, BEG = Behavioral Engagement, CEG = Cognitive Engagement, EEG = Emotional Engagement

3.4. Data Analysis

The data were conducted using SPSS and AMOS software. The study began by reliability analysis and validity analysis. To validate data suitability for exploratory factor analysis (EFA), the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity were applied. The KMO score reached .918, and Bartlett's test indicated a statistically significant result ($p < .001$), affirming the data's appropriateness for EFA. 67.585%, 70.208%, 70.849%, and 67.585% of the variance in teacher support, achievement goal orientation, perceived task value, and student engagement were explained by the model.

To assess construct validity, confirmatory factor analysis (CFA) was conducted. First, discriminant validity was established by comparing the results from correlation analysis with average variance extracted (AVE) values. For each factor, the square root of the AVE exceeded the highest correlation coefficient's absolute value with other factors, supporting discriminant validity. Second, convergent validity was confirmed, with all construct reliability (CR) values surpassing the threshold of 0.7 and all AVE values exceeding 0.5, demonstrating convergence. Lastly, a significance level ($p < .05$) indicated statistical significance across all variables.

A correlation analysis was performed to explore variable relationships, followed by a path analysis to examine more complex causal relationships using the hypothesized structural

equation model (SEM). Finally, the mediated effects of motivational beliefs on the relationship between teacher support and student engagement were tested.

4. RESULTS

4.1. Goodness-of-fit Measures

A model fit is considered good if the ratio of x^2/df below 3, RMR below 0.05, RMSEA below 0.08, and GFI, AGFI, NFI, TLI, and CFI above 0.90, represents a good fit (Abrahim, Mir, Suhara, Mohamed, & Sato, 2019). Table 6 presents the fit indices for teacher support model, achievement goal orientation model, perceived task value model, and student engagement model, collectively confirming the strong fit of the overall model.

TABLE 6

Model Fitting

	Common Index	x^2/df	RMSEA	RMR	GFI	AGFI	CFI	NFI	TLI
	Criteria	< 3	< .08	< .05	> .90	> .90	>.90	>.90	> .90
TS	Value	1.853	.035	.019	.983	.972	.989	.977	.985
GO	Value	2.418	.045	.031	.982	.966	.986	.976	.979
TV	Value	1.974	.036	.024	.988	.975	.922	.983	.986
EG	Value	2.013	.038	.035	.979	.967	.988	.977	.984

Note. TS = Teacher Support, EG = Student Engagement, GO = Achievement Goal Orientation, TV = Perceived Task Value

4.2. Relationship of Teacher Support and Students' Motivational Beliefs

Table 7 shows the Pearson correlation matrix between the involved variables. It can be observed that there were significant correlations between the three forms of teacher support, three dimensions of achievement goal orientation, as well as three dimensions of perceived task value.

The correlation coefficients (*r*-value) between teacher support and both mastery goal orientation and performance-approach goal orientation, ranging from .322 to .418, indicated a moderately strong positive relationship. Notably, the correlation between teacher autonomy support and students' performance-approach goal orientation was the strongest (r = .418), followed by the correlation between teacher autonomy support and students' mastery goal orientation (r = .393). In contrast, relatedness and competence showed relatively weaker associations with students' goal orientations. Furthermore, the negative correlations between teacher support and students' performance-avoidance goal orientation

suggested an inverse relationship, indicating that higher levels of teacher autonomy, relatedness, and competence support were associated with lower levels of students' performance-avoidance goal orientation. This implies that teacher autonomy support fosters students' intrinsic motivation for learning, encouraging them to acquire knowledge and strive for excellence in EFL classrooms.

Additionally, the correlation coefficients between teacher support and perceived attainment task value, utility task value, and intrinsic value, ranging from .248 to .416, indicated moderately strong positive relationships. Specifically, the correlation between teacher autonomy support and students' perceived attainment task value was the strongest (r = .416), followed by the correlation between teacher autonomy support and perceived utility task value *(r* = .399). In contrast, teacher relatedness support and competence support showed relatively weaker associations with students' perceived task value.

These findings suggest that teacher autonomy support has a greater impact on students' goal orientation and perceived task value, compared with relatedness and competence support. Therefore, fostering an autonomy-supportive EFL context rather than relying on controlling teaching methods is crucial for optimizing the learning process, enhancing students' motivation, and improving academic achievement.

TABLE 7

Correlation Analysis of Teacher Support and Motivational Beliefs

	TAS	TRS	TCS	MAG	PApG	PAVG	ATV	UTV	ITV
1	1								
2	469**	1							
3	.539**	.377**	1						
4	.393**	.322**	.336**	1					
5	.418**	.331**	.351**	.425**	1				
6	-.406**	-.348**	-.382**	-.444**	-.427**	1			
7	.416**	.283**	.299**	.250**	.298**	-.278**	1		
8	.399**	.263**	.282**	.238**	.240**	-.249**	.468**	1	
9	.321**	.248**	.269**	.224**	.200**	-.244**	.354**	.403**	1

* $p < .05$ ** $p < .01$

4.3. Mediation Effect of Students' Motivational Beliefs

4.3.1. Model fit for the research model

A path diagram was drawn as shown in Figure 1. The relationships between the six factors were added to the path diagram because they are hypothesized to be correlated. The goodness-of-fit indices are presented in Table 8. The results demonstrated that $x^2/df = 1.398 < 3$, RMSEA = .024 < .08, RMR = .019 < .05, GFI = .972 > .09, AGFI = .976 > .90, CFI = .988 > .90, NLI = .959 > .90, TLI = .985 > .90. The results indicate that the overall model

fit is acceptable.

TABLE 8

Model Fit Indices for the Research Model

Common Index	x^2/df	RMSEA	RMR	GFI	AGFI	CFI
Criteria	< 3	< .08	< .05	> .90	> .90	> .90
Value	1.398	.024	.019	.972	.976	.988

4.3.2. Mediation effect test of motivational beliefs

The mediation effect between teacher support and student engagement was tested using the Bootstrap resampling method and repeated sampling 5,000 times, with 95% confidence interval. If the resulting confidence interval does not include "0," it indicates that the mediation effect of the path is significant and the mediation effect test is valid. As shown in Table 9, the confidence intervals for the paths TAS = > EG (.102 ~ .485), TRS = > EG (.031 ~ .265), and TCS = > EG (.084 ~ .362) did not include 0, indicating three forms of teacher support had a direct effect on student engagement. Additionally, the confidence intervals for the mediation paths TAS = >GO = > EG (.021 ~ .198), TRS = > GO = > EG (.009 ~ .116), TCS = > GO = > EG (.011 ~ .125), TAS = > TV = > EG (.033 ~ .207), did not include 0, indicating that achievement goal orientation mediated the relationship between the three types of teacher support and student engagement. Students' perceived task value mediated the relationship between teacher autonomy support and student engagement. However, the confidence intervals for the mediation paths TRS = > TV = > SE (-.004 ~ .073) and TCS = > TV = > SE (.010 ~ .059) included 0, indicating that the mediation was not valid. This suggests that perceived task value did not mediate the relationship between teacher relatedness support and student engagement as well as competence support and student engagement.

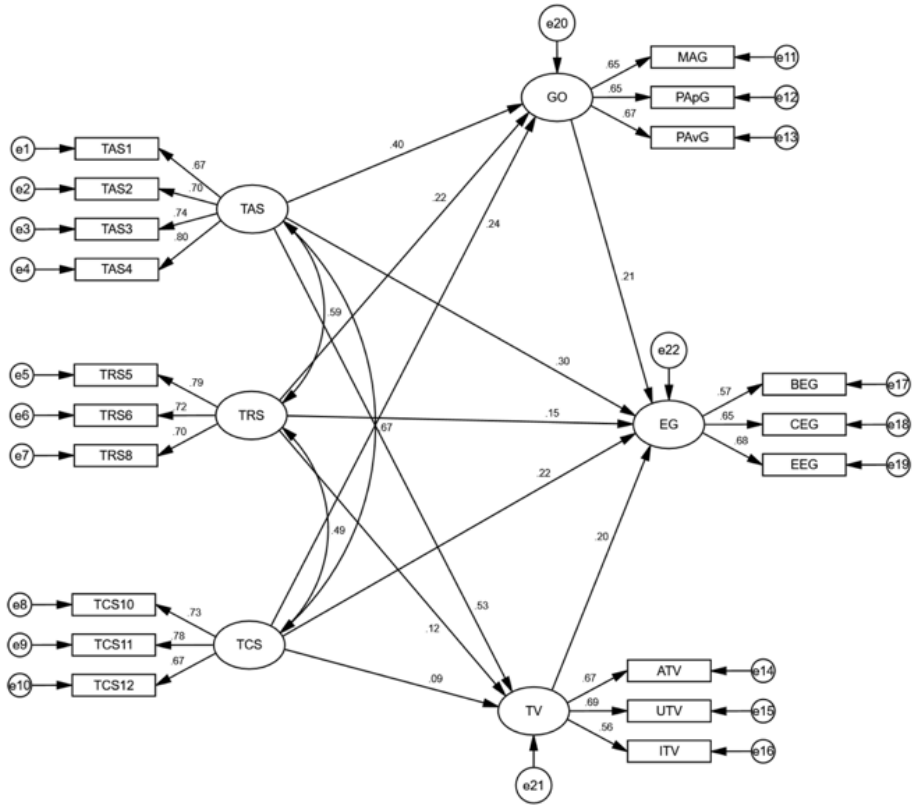
TABLE 9

Mediation Test of Students' Motivational Beliefs

Path	Effect Type	Estimate	Lower	Upper	*p*
TAS=>EG	Direct Effect	.301	.102	.485	.005
	TAS =>GO =>EG	.084	.021	.198	.007
	TAS =>TV =>EG	.105	.033	.207	.004
	Total Effect	.490	.341	.629	.000
TRS=>EG	Direct Effect	.147	.031	.265	.014
	TRS=>GO=>EG	.046	.009	.116	.009
	TRS =>TV =>EG	.023	-.004	.073	.096
	Total Effect	.216	.111	.330	.001
TCS=>EG	Direct Effect	.221	.084	.362	.003
	TCS=>GO =>EG	.051	.011	.125	.007
	TCS=>TV =>EG	.018	-.010	.059	.184
	Total Effect	.289	.151	.429	.001

FIGURE 1

Research Model and Standardized Estimates for SEM



Note. TAS = Teacher Autonomy Support, TRS = Teacher Relatedness Support, TCS = Teacher Competence Support, GO = Achievement Goal Orientation (Mediating variable 1), TV = Perceived Task Value (Mediating variable 2), EG = Student Engagement (Dependent Variable)

5. DISCUSSION AND CONCLUSIONS

This research investigates the relationship between external environmental factors, specifically three forms of teacher support, and the motivation of English learning for Chinese EFL learners. It further analyzes how motivational factors, such as achievement goal orientation and perceived task value, mediate the relationships between teacher support and student engagement.

Regarding the first research question, this study contributes to finding that three forms of teacher support had impacts on student achievement goal orientation, which is aligned with

the previous studies (Ertem, Arslan, & Üren, 2021; Montenegro & Schmidt, 2023). Specifically, teacher autonomy support had the greatest impact on students' mastery goals and performance-approach goals. Interestingly, the three forms of teacher support had a stronger influence on college EFL students' performance-approach goals (outperforming others) than on mastery goals (learning). This may be explained by the competitive academic environment in college, where external validation such as grades and peer comparison are emphasized. Teacher support that focuses on achievement and recognition can reinforce external motivation, leading students to prioritize outperforming others. In contrast, learning English for college students may be more outcome-focused rather than driven by personal interest.

Additionally, three forms of teacher support had impacts on students' perceived task value, which is aligned with the previous study (Marchand & Gutierrez, 2017). Similarly, teacher autonomy support had the greatest impact on students' perceived task value. Interestingly, teacher support was found to have a stronger influence on students' perceived attainment task value and utility task value than intrinsic task value. This suggests that in college EFL learning, the focus is on the practical benefits of learning English, such as employability and global competitiveness. Teachers' emphasis on these external factors likely increases students' perceived attainment and utility value of learning English, while intrinsic interest may take a secondary role in environments where success is measured through exams, grades, and future opportunities.

Regarding the second research question, achievement goal orientation as a mediating variable, the result shows that the mediating mechanism of achievement goal orientation impacted the relationship between three forms of teacher support and student engagement. Firstly, teacher autonomy support functioned more effectively by promoting students' achievement goals to predict student engagement, which is in agreement with previous studies (Benlahcene, Awang-Hashim, & Kaur, 2020). It encourages students to adopt mastery goals, focusing on learning, understanding, and self-improvement. When students are given choices, encouraged to take responsibility for their learning, and supported in pursuing their interests, they are more likely to engage with tasks for the sake of mastering the content rather than merely performing well. Secondly, teacher relatedness support positively influenced students' achievement goal orientation, and further impacted student engagement. This result is aligned with the previous study (Fathiyah, Kurnia, & Setiyawati, 2023), which states that mastery goal orientation dimension acts as a mediator of the relationship between the positive affect dimension and learning achievement. Thirdly, teacher competence support functioned effectively by promoting achievement goal orientation, and further impacted student engagement. There is scarce literature in previous studies relating to teacher competence support. Teachers should create a learning-oriented classroom goal structure for students by assigning challenging and meaningful learning tasks,

as well as using assessment methods that focus on personal growth and skill improvement, rather than merely emphasizing exam scores.

Regarding the mediating mechanism of perceived task value, it served as a mediator between autonomy support and student engagement. To put it another way, teacher autonomy support can positively influence student engagement in English learning by enhancing the value of academic tasks, which is in agreement with previous research (Chi, 2017). When students' need for autonomy is fulfilled, they are tending to view their academic tasks as personally meaningful and valuable. On the contrary, perceived task value did not mediate the relationship between teacher relatedness support and student engagement. This result appears to confirm the empirical findings of the previous study (Chi, 2017). It suggests that teachers' care and respect for students do not significantly affect students' valuation of academic tasks. EFL college students might separate their emotional experiences from their academic evaluations. Even when they feel valued and respected by their teachers, this relatedness support does not automatically lead to a perception that academic tasks are more valuable or important. Additionally, perceived task value also did not mediate the relationship between teacher competence support and student engagement in English learning, which is in disagreement with the previous study (Chi, 2017; Gan, Liu, & Nang, 2023). According to Gan et al. (2023), students who recognize the importance of learning tasks in English classes are more inclined to engage with teacher feedback on their academic work and actively seek additional feedback from their teacher. This study suggests that teacher competence support typically involves targeted feedback and opportunities for mastery, which directly influence student engagement. However, the satisfaction and motivation derived from mastering skills and receiving positive feedback drive engagement without necessarily altering how students perceive the value of the tasks.

Based on the research findings, teacher autonomy support is of paramount importance in college English learning. Teachers should recognize that students have individual differences in personality, interests, and cognitive abilities. It is important to allow students to set their own goals, methods, and assessments. Integrating ePortfolios into English classes empowers students to take control of their learning process.

This study extends previous research in SDT by exploring the impact of teacher support on students' motivational beliefs in Chinese EFL college classrooms. However, it has several limitations. First, the study used a cross-sectional design and relied solely on student self-reports, which may limit the accuracy of understanding the full scope of teacher support's impact on motivation. Future research should incorporate teacher reports to offer a more thorough understanding of the connections between teacher support and student motivation. Additionally, the survey analysis was based on how students perceived their existing classes, perhaps a deeper story could be told if there was an experimental intervention with specific teacher support strategies being used in the classes to see the specific effects on certain types

of student engagement. Moreover, the number of items is not enough to look into the whole or rather comprehensive pictures of the learners' psychological states, attitudes, and motivation. The questionnaire items should extend to cover a wider range of aspects for future research. In conclusion, this study provides insights into how teacher support can enhance student motivation and engagement by satisfying their psychological needs, and it offers guidance for improving teaching practices in EFL classrooms.

Applicable levels: Tertiary

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