

The Relationship between Flipped Classroom Perception and English Learning Motivation among University Students in Beijing

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Abstract

The flipped classroom has become a prominent learner-centred approach in higher education, yet its motivational value in English language learning is often evaluated through achievement outcomes rather than through students' own perceptions. This study examined the level of flipped classroom perception and English learning motivation among university students in Beijing, together with the relationship between the two constructs. A quantitative cross-sectional survey was administered to undergraduate students enrolled in English courses at three Beijing universities, producing a usable sample of 252 respondents. The data were analysed using descriptive statistics, Pearson correlation, and regression analysis. Both flipped classroom perception ($M = 3.72$) and English learning motivation ($M = 3.70$) were found to be at a high level, with in-class interaction and extrinsic motivation rated most positively. A strong, statistically significant positive relationship was identified between the two variables ($r = 0.612$, $p < 0.01$), and flipped classroom perception explained 37.5% of the variance in motivation. In-class interaction and activities emerged as the strongest predictor. The findings support Self-Determination Theory and Constructivist Learning Theory, and indicate that the motivational benefit of flipped learning depends mainly on the quality of in-class engagement rather than on pre-class materials alone.

Keywords: Flipped Classroom, English Learning Motivation, Student Perception, Higher Education, Self-Determination Theory

Introduction

The flipped classroom is an instructional approach that inverts the conventional lecture-homework sequence by delivering instructional content outside the classroom, frequently through video, and reserving class time for active learning (Afzali & Izadpanah, 2021; Campillo-Ferrer & Miralles-Martínez, 2021). The model has attracted considerable attention in English language teaching because of its potential to strengthen learner engagement and motivation. In the higher education institutions of Beijing, English remains a core undergraduate subject, and raising students' motivation to learn the language is regarded as important for academic success and future employment. The present study investigates university students' perception of the flipped classroom and examines how that perception relates to their English learning motivation.

The emergence of the flipped classroom cannot be separated from the wider digital transformation of higher education. The disruption caused by the COVID-19 pandemic normalised online and blended delivery on a global scale and left universities with the infrastructure, digital resources, and institutional expectations that flipped instruction presupposes (Campillo-Ferrer & Miralles-Martínez, 2021). In China this shift has been reinforced by policy. The Guidelines on College English Teaching (Ministry of Education, 2020) identify autonomous learning, information technology, and blended instruction as central to the modernisation of College English, and the national strategy for educational digitalisation has since accelerated the adoption of learning management systems and video-based resources across Chinese universities. Flipped instruction is therefore no longer a marginal experiment in this setting but a policy-endorsed model that institutions are actively encouraged to implement at scale. How students themselves experience that model consequently becomes a question of practical as well as scholarly consequence.

In many higher education settings, teacher-centred instruction continues to dominate English teaching. Such instruction tends to emphasise lecture delivery, passive knowledge transmission, and limited interaction, which restricts learners' opportunities for the active participation and communicative practice that language development requires. Over time, learners may become passive recipients rather than active participants, with declining motivation and engagement. This situation has prompted growing interest in student-centred alternatives, and the flipped classroom has emerged as one of the most widely discussed models over the past decade. By moving content delivery to pre-class study and dedicating in-class time to collaborative tasks, discussion, and problem solving, flipped instruction has been associated with more active learning, stronger engagement, and improved language skills (Afzali & Izadpanah, 2021; Campillo-Ferrer & Miralles-Martínez, 2021).

Motivation is a central determinant of success in second language learning because it shapes the intensity and persistence of learner effort. According to Self-Determination Theory, learning environments that support autonomy, competence, and relatedness are more likely to sustain intrinsic motivation (Ryan & Deci, 2020; Bi et al., 2023; Elzeky et al., 2022). The flipped classroom can, in principle, satisfy these needs by allowing learners to control the pace of pre-class study, engage in meaningful in-class interaction, and receive timely feedback. Studies conducted in a range of settings have reported positive effects of flipped learning on English learning motivation (Fathi et al., 2023; Wang et al., 2025). Motivation in second language learning is further shaped by learners' images of themselves as future users of the language, as the L2 Motivational Self System proposes (Dörnyei, 2009). Taken together, these accounts converge on a single implication that is central to the present study: a teaching model does not act on motivation directly, but through the meaning learners assign to it. This positions perception as a theoretically necessary link between instructional design and motivational outcome rather than as an incidental attitudinal measure. Language learning is especially dependent on sustained motivation, since it requires repeated practice, participation, and willingness to communicate over long periods. When students regard English merely as a compulsory subject, their effort tends to decline, which makes the identification of factors that support motivation an ongoing concern in higher education.

Despite continuing reform, English instruction in many Beijing universities still relies heavily on teacher-centred, examination-oriented methods, particularly in large classes where

opportunities for participation are limited. Although prior research reports that flipped practices can improve participation and learning outcomes, most studies have measured academic performance or overall effectiveness rather than students' subjective perceptions of the flipped experience. Perceptions matter because they shape how learners engage with an instructional approach and how motivated they feel to take part. Students who evaluate an approach positively may invest greater effort, whereas those with negative perceptions may disengage regardless of the objective quality of instruction. The scale of this imbalance is visible in recent syntheses. Vitta and Al-Hoorie (2023) meta-analysed 56 reports covering 4,220 second language learners and recorded a large aggregate advantage for flipped over conventional instruction, although the effect contracted appreciably once publication bias was modelled and heterogeneity remained high. Chen et al. (2025) reached a comparable conclusion across 70 studies from 19 countries, observing that outcomes were conditioned by the design of classroom activities and pre-class comprehension checks rather than by the flipped format in itself. Within Chinese higher education, Ni et al. (2023) confirmed positive effects on College English outcomes while drawing attention to substantial variation between implementations. What these syntheses share is an emphasis on measured outcomes alongside an admission that the mechanisms generating those outcomes remain poorly specified. Learner perception is a plausible candidate for one such mechanism, yet it is more often reported as a supplementary finding than modelled as a variable in its own right (Aybirdi, 2023; Xiaoying & Abu Samah, 2024). A further limitation concerns perspective. Ling and Jan (2026), examining flipped English classrooms at a Chinese university through self-determination theory and social constructivism, worked from teachers' accounts and reported student resistance grounded in habits of passive learning, a finding that identifies learner disposition as decisive for implementation while leaving learners' own evaluation of the model unmeasured. Qi et al. (2024) reviewed 57 studies of flipped approaches in language learning and found that, although the field covers attitudes, proficiency, and motivation, further work is needed on specific mechanisms and contextual differences. Fisher et al. (2024) similarly observed that flipped learning in EFL higher education has been linked to gains in motivation and performance, but that the evidence base requires clearer designs and stronger explanation of how these gains occur.

There remains limited empirical evidence within Beijing's higher education context, where institutional conditions, teaching practices, and student expectations may differ from those elsewhere. Several considerations make this context worth examining in its own right. First, Beijing concentrates a dense population of universities operating under sustained examination pressure and comparatively large class sizes, conditions that directly constrain the in-class interaction on which flipped instruction depends. Second, Chinese learners' motivation for English is closely bound to credentialing and employment, so the balance between intrinsic and extrinsic orientation may diverge from that observed in the Western and Middle Eastern settings that dominate the existing evidence base. Third, because flipped instruction is now institutionally promoted rather than optional, establishing whether students evaluate it favourably, and which of its components carry motivational weight, bears directly on how finite teaching resources are allocated. Evidence on these points remains thin: Chinese studies to date have largely reported achievement gains (Ni et al., 2023; Wang et al., 2025) without establishing how students' evaluation of the model relates to their motivation to learn.

The present study addresses this gap by treating flipped classroom perception as a structured variable and examining its relationship with English learning motivation through a quantitative survey. Three objectives guide the study: first, to examine the level of flipped classroom perception among university students in Beijing; second, to examine the level of English learning motivation among these students; and third, to examine the relationship between flipped classroom perception and English learning motivation. It is hypothesised (H1) that there is a statistically significant positive relationship between flipped classroom perception and English learning motivation among university students in Beijing.

For clarity, the two central constructs are defined as follows. Flipped classroom perception refers to students' subjective evaluation of flipped classroom practices, including their views of pre-class learning materials, in-class interaction, engagement, and the overall usefulness of the approach. English learning motivation refers to the internal and external factors that influence students' willingness and effort to engage in English learning, and it is examined through three dimensions. Intrinsic motivation reflects interest and enjoyment in learning English for its own sake, such as curiosity and personal satisfaction. Extrinsic motivation is driven by external factors such as grades, academic requirements, career prospects, and social expectations. Task value concerns students' perception of the importance, usefulness, and relevance of English learning tasks to their academic and personal goals.

The study contributes to the literature on technology-enhanced language learning by providing empirical evidence from the specific sociocultural context of Beijing's universities. By focusing on students' perspectives and on quantitative measures of motivation, it offers insight that can inform curriculum design, instructional practice, and teacher training, and can support a shift towards more student-centred English instruction. The findings may also guide institutional decisions on resource allocation for integrating flipped learning into higher education English programmes in China.

Literature Review

Theoretical Framework

This study is grounded in Self-Determination Theory (SDT) and Constructivist Learning Theory (CLT). SDT, proposed by Deci and Ryan (1985), explains motivation through three basic psychological needs: autonomy, competence, and relatedness. Autonomy concerns the degree of control that learners feel over their learning; competence reflects their confidence in performing tasks successfully; and relatedness refers to their sense of connection with others. When these needs are met, learners are more likely to develop intrinsic motivation and to persist in their studies. The flipped classroom aligns with these principles. Pre-class study grants autonomy over the pace and timing of learning; in-class problem solving and feedback build competence; and collaborative activity fosters relatedness. Empirical work indicates that satisfying these needs is associated with higher motivation, engagement, and persistence among language learners (Bi et al., 2023; Elzeky et al., 2022).

CLT holds that learners actively construct knowledge through interaction, experience, and reflection rather than receiving it passively (Vygotsky, 1978). In language learning, this is reflected in communicative and collaborative tasks that require students to make meaning rather than memorise information. The flipped classroom embodies this view, as learners acquire foundational knowledge independently before class and apply it through discussion

and problem solving during class. From a constructivist standpoint, students' perceptions of flipped practices are important because they influence how actively students participate. When learners view the activities as useful and meaningful, they are more likely to engage, which in turn supports motivation (Challob, 2021; Phoeun & Sengsri, 2021).

Flipped Classroom and Motivation in Language Learning

A number of studies report favourable effects of flipped instruction on language learning motivation. Afzali and Izadpanah (2021) found that learners in flipped grammar classes displayed higher motivation and engagement than those in traditional classes, which they attributed to greater autonomy and active participation. Wang et al. (2025), working with Chinese university students, reported improvements in both motivation and academic performance in flipped English classes. Challob (2021) observed that flipped learning enhanced writing performance, autonomy, and willingness to participate, indicating that the approach influences not only outcomes but also how students experience learning. Review evidence reinforces these findings. Aybirdi (2023), in a meta-analysis of 40 studies, reported a statistically significant positive effect of flipped learning on second language achievement, much of it at university level, while Ni et al. (2023) found a moderate positive effect on college English outcomes across 24 studies involving 2,526 participants. Eltahir and Alsalhi (2025) likewise reported gains in achievement, motivation, and engagement in a higher education flipped classroom. Taken together, these studies indicate that flipped classrooms can create more engaging learning environments; yet most compare flipped and traditional instruction or measure outcomes rather than examining perception directly, which points to the need for focused quantitative research on perception and motivation.

Flipped Classroom Combined With Other Pedagogies

Several studies have integrated flipped learning with additional strategies. Köpeczi-Bócz (2024) combined flipped learning with project-based learning and observed higher motivation, which may reflect students' sense that project work is relevant to real situations. Elzeky et al. (2022) added gamification to flipped instruction and reported improvements in both motivation and skill development, suggesting that enjoyable elements encourage participation. These studies show that the flipped model can be adapted flexibly, but they tend to foreground teaching strategies rather than students' perceptions. Because learners interpret combined activities differently, with some finding them engaging and others finding them demanding, perception warrants examination as a variable in its own right.

Learner Readiness, Engagement, and Perception

Learner readiness is closely tied to the success of flipped instruction. Jiang et al. (2024) found that students' readiness for online flipped learning was related to their motivation, engagement, attitude, and perceived institutional support. Pan et al. (2022) reported that flipped classrooms reduced foreign language speaking anxiety and improved motivation, especially where in-class activities encouraged communication, and Phoeun and Sengsri (2021) showed that pairing flipped learning with communicative language teaching improved speaking ability and sustained motivation. In a systematic review of 36 empirical studies published between 2017 and 2023, Xiaoying and Abu Samah (2024) found that flipped classrooms can improve learning outcomes, motivation, engagement, social interaction, and independent learning, but that successful implementation depends on students' engagement with pre-class materials and active in-class participation. These findings support treating

flipped classroom perception as a central variable: when learners view the approach as useful, manageable, and connected to classroom activity, they are more likely to engage and remain motivated.

Perception as a Research Gap

Studies that report internal or affective gains further underline the role of perception. Bi et al. (2023) found that flipped classrooms improved reflective thinking, self-efficacy, and motivation, and Fathi et al. (2023) reported gains in writing skills and motivation in collaborative flipped settings. In this body of work, however, perception is typically reported as a by-product of instruction rather than modelled as a variable that may itself condition motivational response, and it is most often captured through global satisfaction items rather than through dimensions corresponding to the distinct phases of the flipped cycle. Qi et al. (2024) noted that flipped classroom research in language learning has become increasingly diverse, spanning perception, attitude, proficiency, and motivation, which makes it important for individual studies to define their variables and context clearly. Two further limitations narrow the available evidence. First, where perception has been examined in Chinese higher education, it has frequently been approached from the instructor's side. Ling and Jan (2026) investigated the cognitive and motivational impacts of flipped English classrooms at a Chinese university using self-determination theory and social constructivism, reporting gains in teacher autonomy and professional satisfaction alongside student resistance rooted in habits of passive learning. The finding is instructive precisely because it identifies learner disposition as a constraint on implementation while leaving the learners' own evaluation of the model unmeasured. Second, syntheses that aggregate outcome effects (Chen et al., 2025; Vitta & Al-Hoorie, 2023) report substantial heterogeneity between implementations, yet the learner-side variables that might account for that heterogeneity are seldom modelled. What remains unknown is therefore whether, and how strongly, students' structured evaluation of flipped practice covaries with their motivation within a single, clearly specified institutional context. In the present study, flipped classroom perception is not treated as a general satisfaction measure but as a structured construct comprising pre-class learning materials, in-class interaction and activities, engagement and participation, and overall usefulness. This allows a more precise examination of how students' evaluation of flipped practices relates to their English learning motivation. Table 1 summarises selected studies relevant to the present investigation.

Table 1

Summary of Selected Studies on Flipped Classroom and English Learning Motivation

Author(s)	Context / Sample	Focus of Study	Key Findings
Afzali & Izadpanah (2021)	Iranian EFL learners	Flipped classroom, engagement, grammar motivation	Flipped instruction improved learners' engagement and motivation in grammar learning.
Challob (2021)	EFL students	Writing performance, autonomy, motivation	Flipped learning improved writing performance, autonomy, and motivation.
Bi et al. (2023)	Intermediate language learners	Reflective thinking, self-efficacy, motivation	Flipped classroom enhanced reflective thinking, self-efficacy, and motivation.

Author(s)	Context / Sample	Focus of Study	Key Findings
Fathi et al. (2023)	EFL collaborative writing course	Writing skills and writing motivation	Collaborative flipped learning improved writing ability and motivation.
Jiang et al. (2024)	English learners	Readiness, motivation, engagement	Readiness was linked to motivation, engagement, attitude, and support.
Wang et al. (2025)	Chinese college English learners	Motivation and academic performance	Flipped classroom improved motivation and academic performance.
Qi et al. (2024)	Systematic review of language studies	Flipped approaches in language learning	Research covers perception, motivation, attitude, and proficiency.
Vitta & Al-Hoorie (2023)	Meta-analysis; 56 reports, 4,220 L2 learners	Aggregate effect of flipped instruction on L2 outcomes	Large overall advantage that contracted once publication bias was modelled; heterogeneity remained high.
Ling & Jan (2026)	Chinese art university; English teachers	Cognitive and motivational impacts of flipped English classrooms	Teachers reported greater autonomy and satisfaction, but also student resistance from passive learning habits; learner evaluation not measured.

Note. N = 9 selected studies. EFL = English as a foreign language.

Overall, the literature indicates that flipped classrooms are generally associated with positive outcomes, including higher motivation, engagement, autonomy, and achievement, but that fewer studies treat perception as a central variable or examine its relationship with motivation in a specific context. The present study addresses this gap among university students in Beijing.

Methodology

Research Design

The study adopted a quantitative cross-sectional survey design to examine the relationship between flipped classroom perception and English learning motivation among university students in Beijing. The design did not involve any manipulation of teaching conditions; instead, it observed and analysed existing variables at a single point in time. A survey approach was appropriate because it allowed data to be collected from a relatively large number of participants within a limited period and permitted statistical examination of both the levels of the variables and the relationship between them.

Population and Sampling

The target population comprised undergraduate students enrolled in English language courses at selected universities in Beijing, estimated at approximately 500 students. According to Morgan's sample size table, a minimum of about 217 participants is required for a population of this size to achieve an acceptable level of confidence. Participants were recruited through convenience sampling based on accessibility and willingness to take part, subject to the inclusion criteria that they were currently enrolled in English courses and had some experience of flipped classroom or blended learning activities.

Instrument

Data were collected using a structured questionnaire comprising three sections. Section A gathered demographic information, including gender, year of study, university, and prior exposure to flipped or blended learning. Section B measured flipped classroom perception across four dimensions: pre-class learning materials, in-class interaction and activities, engagement and participation, and overall usefulness. Section C measured English learning motivation across three dimensions: intrinsic motivation, extrinsic motivation, and task value. All items in Sections B and C were rated on a five-point Likert scale ranging from strongly disagree to strongly agree. Items were adapted from previously validated instruments and modified to suit the Beijing higher education context, with attention to clarity and to the avoidance of ambiguity. Table 2 presents the structure of the questionnaire.

Table 2

Structure of the Questionnaire

Section	Construct	Dimension	Items	Scale
A	Demographic profile	Gender, year of study, university, flipped classroom experience	4	Categorical
B	Flipped classroom perception	Pre-class learning materials	5	5-point Likert
B	Flipped classroom perception	In-class interaction and activities	6	5-point Likert
B	Flipped classroom perception	Engagement and participation	5	5-point Likert
B	Flipped classroom perception	Overall usefulness	4	5-point Likert
C	English learning motivation	Intrinsic motivation	6	5-point Likert
C	English learning motivation	Extrinsic motivation	5	5-point Likert
C	English learning motivation	Task value	5	5-point Likert

Data Analysis

Data were analysed using statistical procedures appropriate for quantitative survey research. Prior to the main analysis, data screening was conducted to check for missing values, outliers, and assumption violations. Descriptive statistics, including means and standard deviations, were used to describe the levels of the two variables, and mean scores were interpreted using a five-point classification scale. Pearson correlation analysis was used to examine the strength and direction of the relationship between the variables. Simple linear regression tested whether flipped classroom perception predicted English learning motivation, and multiple regression examined the predictive contribution of each perception dimension. Independent-samples t-tests and one-way analysis of variance (ANOVA) were used to examine differences across demographic groups. Statistical significance was set at the 0.05 level.

Validity and Reliability

Content validity was supported by adapting items from validated instruments and reviewing them for clarity and appropriateness. Reliability was assessed using Cronbach's alpha, with a value of 0.70 or above regarded as acceptable. Construct validity was examined through exploratory factor analysis. The results of these procedures are reported in the following section.

Findings*Respondent Profile*

A total of 280 questionnaires were distributed to undergraduate students at three selected universities in Beijing. Of these, 263 were returned, a response rate of 93.9%. After screening, 11 responses were removed because of incomplete or patterned answers, giving a final usable sample of 252 respondents. This exceeds the minimum of 217 indicated for a population of approximately 500, confirming that the data set was adequate for the planned analyses. As Table 3 shows, most respondents were female (61.1%), consistent with the typical composition of English courses in Beijing universities. Year 2 students formed the largest group (31.0%), and the distribution across the three universities was relatively balanced. A majority (77.8%) reported prior exposure to flipped or blended learning, meaning that most participants responded on the basis of actual experience.

Table 3

Demographic Profile of Respondents (N = 252)

Demographic Variable	Category	Frequency (%)
Gender	Male	98 (38.9)
	Female	154 (61.1)
Year of study	Year 1	54 (21.4)
	Year 2	78 (31.0)
	Year 3	72 (28.6)
	Year 4	48 (19.0)
University	University A	92 (36.5)
	University B	88 (34.9)
	University C	72 (28.6)
Flipped classroom experience	Yes	196 (77.8)
	No	56 (22.2)

Data Screening and Assumption Testing

Returned questionnaires were examined for missing values; seven cases with more than 10% missing items were excluded, and the remaining missing data, which fell below 2%, were handled through mean substitution. Univariate outliers were assessed using standardised z-scores, and four flagged cases fell within plausible ranges and were retained. Multivariate outliers, assessed using Mahalanobis distance at $p < 0.001$, revealed no cases exceeding the critical value. Normality was supported by skewness values of -0.34 and -0.41 and kurtosis values of 0.18 and 0.26 for flipped classroom perception and English learning motivation respectively, all within the acceptable range of ± 2.0 , together with approximately bell-shaped histograms and Q-Q plots close to the diagonal. Scatterplot inspection supported linearity and

homoscedasticity. Harman's single-factor test indicated that the first factor accounted for 28.6% of the variance, below the 50% threshold, suggesting that common method bias was unlikely to be a serious concern. The data were therefore suitable for parametric analysis.

Descriptive Statistics

Mean scores were interpreted using the following scale: 1.00 to 1.80 (very low), 1.81 to 2.60 (low), 2.61 to 3.40 (moderate), 3.41 to 4.20 (high), and 4.21 to 5.00 (very high). As Table 4 shows, the overall mean for flipped classroom perception was 3.72 (SD = 0.65), a high level. In-class interaction and activities received the highest mean (M = 3.81), followed by engagement and participation (M = 3.74), pre-class learning materials (M = 3.68), and overall usefulness (M = 3.62). The high score for in-class interaction suggests that students valued the collaborative and discussion-based elements that distinguish flipped classrooms from traditional instruction, while the slightly lower score for overall usefulness may reflect some uncertainty about longer-term benefits.

Table 4

Descriptive Statistics for Flipped Classroom Perception (N = 252)

Dimension	Items	Mean	SD	Level
Pre-class learning materials	5	3.68	0.72	High
In-class interaction and activities	6	3.81	0.69	High
Engagement and participation	5	3.74	0.74	High
Overall usefulness	4	3.62	0.78	High
Overall flipped classroom perception	20	3.72	0.65	High

As Table 5 shows, the overall mean for English learning motivation was 3.70 (SD = 0.66), also a high level. Extrinsic motivation recorded the highest mean (M = 3.84), followed by task value (M = 3.67) and intrinsic motivation (M = 3.59). The prominence of extrinsic motivation is consistent with an educational context in which grades, degree requirements, and career prospects are recognised as important drivers of English learning. The intermediate position of task value suggests that many students are beginning to internalise the value of English learning even though external considerations remain dominant.

Table 5

Descriptive Statistics for English Learning Motivation (N = 252)

Dimension	Items	Mean	SD	Level
Intrinsic motivation	6	3.59	0.76	High
Extrinsic motivation	5	3.84	0.71	High
Task value	5	3.67	0.73	High
Overall English learning motivation	16	3.70	0.66	High

Reliability and Validity Evidence

All Cronbach's alpha values exceeded 0.70. As Table 6 shows, overall reliability was 0.912 for flipped classroom perception and 0.903 for English learning motivation, with dimension-level values ranging from 0.831 to 0.876. Exploratory factor analysis supported construct validity: Kaiser-Meyer-Olkin values were 0.901 and 0.887, and Bartlett's test of sphericity was

significant ($p < 0.001$) for both scales. The perception scale yielded four factors explaining 64.8% of the variance, and the motivation scale yielded three factors explaining 62.3%, consistent with the proposed dimensions. Factor loadings ranged from 0.56 to 0.84, with no cross-loadings above 0.40.

Table 6

Reliability Analysis Results

Construct / Dimension	Items	Cronbach's Alpha
Flipped classroom perception (overall)	20	0.912
Pre-class learning materials	5	0.847
In-class interaction and activities	6	0.876
Engagement and participation	5	0.858
Overall usefulness	4	0.831
English learning motivation (overall)	16	0.903
Intrinsic motivation	6	0.862
Extrinsic motivation	5	0.844
Task value	5	0.839

Level of Flipped Classroom Perception (Research Objective 1)

The overall level of flipped classroom perception was high ($M = 3.72$). At item level, the helpfulness of pre-class videos was rated most highly within the pre-class dimension ($M = 3.82$), whereas the relevance of pre-class materials to in-class activities was lowest ($M = 3.53$). Within in-class interaction, opportunities for class discussion recorded the highest mean ($M = 3.91$). In the engagement dimension, willingness to participate scored highest ($M = 3.82$). The item comparing flipped classrooms with traditional teaching recorded the lowest mean across all items ($M = 3.48$), which may reflect caution among students accustomed to traditional methods. Overall, students viewed flipped practices favourably across all dimensions, with interactive elements evaluated most positively.

Level of English Learning Motivation (Research Objective 2)

The overall level of English learning motivation was high ($M = 3.70$). Within intrinsic motivation, feeling happy about making progress in English scored highest ($M = 3.72$), while learning English out of curiosity was lowest ($M = 3.48$), indicating that a sense of progress mattered more than curiosity. Within extrinsic motivation, the importance of English for future careers ($M = 3.96$) and for obtaining a good job ($M = 3.94$) were rated most highly, consistent with a pragmatic orientation. Within task value, the belief that English would be beneficial in future scored highest ($M = 3.89$), whereas the relevance of English tasks to daily life was lowest ($M = 3.42$), suggesting a gap between perceived future value and everyday relevance. The dominance of extrinsic over intrinsic motivation indicates that career considerations, though effective in driving effort, may be insufficient on their own to sustain long-term engagement.

Relationship between Perception and Motivation (Research Objective 3)

As Table 7 shows, the Pearson correlation between flipped classroom perception and English learning motivation was $r = 0.612$, significant at the 0.01 level. Following Cohen's (1988)

guidelines, this represents a strong positive correlation, and hypothesis H1 was supported. Students with more positive perceptions of flipped practices tended to report higher motivation.

Table 7

Pearson Correlation Between the Main Variables

Variable	1	2
1. Flipped classroom perception	1	0.612**
2. English learning motivation	0.612**	1

Note. ** $p < 0.01$ (two-tailed). $N = 252$.

As Table 8 shows, all four perception dimensions correlated significantly and positively with all three motivation dimensions at the dimension level. The strongest association was between in-class interaction and intrinsic motivation ($r = 0.574$), and the weakest was between overall usefulness and extrinsic motivation ($r = 0.374$), indicating that interactive and participatory elements were more strongly linked to motivation than perceived usefulness alone.

Table 8

Correlation Matrix Between Perception and Motivation Dimensions

Perception dimension	Intrinsic motivation	Extrinsic motivation	Task value
Pre-class learning materials	0.487**	0.392**	0.461**
In-class interaction and activities	0.574**	0.428**	0.521**
Engagement and participation	0.548**	0.411**	0.502**
Overall usefulness	0.512**	0.374**	0.489**

Note. ** $p < 0.01$ (two-tailed). $N = 252$.

Simple linear regression, reported in Table 9, showed that the model was statistically significant, $F(1, 250) = 149.76$, $p < 0.001$, with flipped classroom perception explaining 37.5% of the variance in motivation. The unstandardised coefficient ($B = 0.622$) indicated that each one-unit increase in perception was associated with a 0.622-unit increase in motivation. A multiple regression including the four perception dimensions was also significant, $F(4, 247) = 41.52$, $p < 0.001$, explaining 40.2% of the variance. In-class interaction and activities was the strongest predictor ($\beta = 0.252$, $p < 0.001$), followed by engagement and participation ($\beta = 0.210$, $p = 0.004$) and overall usefulness ($\beta = 0.193$, $p = 0.004$). Pre-class learning materials was not a significant predictor when the other dimensions were included ($\beta = 0.107$, $p = 0.087$). All variance inflation factor values were below 5.0, indicating no concern about multicollinearity.

Table 9

Simple Linear Regression: Flipped Classroom Perception Predicting English Learning Motivation

Predictor	B	β	t	Sig.	R ²
(Constant)	1.384	—	7.21	0.000	0.375
Flipped classroom perception	0.622	0.612	12.24	0.000	

Note. $F(1, 250) = 149.76$, $p < 0.001$. $N = 252$.

Additional Analyses

Independent-samples t-tests revealed no significant differences between male and female students in flipped classroom perception ($t = -1.54$, $p = 0.125$) or English learning motivation ($t = -1.72$, $p = 0.087$). One-way ANOVA showed no significant differences across years of study for either variable, with small effect sizes. However, students with prior flipped classroom experience reported significantly higher perception ($M = 3.81$ versus 3.40 , $t = 3.42$, $p = 0.001$) and higher motivation ($M = 3.76$ versus 3.49 , $t = 2.28$, $p = 0.024$) than those without such experience. Because the design was cross-sectional, these differences cannot be interpreted causally, since more motivated students may also have been more likely to seek out flipped learning.

Discussion

Levels of Perception and Motivation

The high level of flipped classroom perception indicates that students in Beijing generally hold favourable views of flipped practices in English learning. The prominence of in-class interaction is consistent with the relatedness component of SDT, since students valued peer interaction, discussion, and collaboration, and with the constructivist emphasis on knowledge construction through social activity. These results echo Afzali and Izadpanah (2021), Wang et al. (2025), and Challob (2021), who reported positive attitudes towards flipped English instruction, particularly its interactive elements. The comparatively lower rating for overall usefulness suggests that some students, especially those less familiar with the model, remain cautious about its longer-term benefits, a pattern consistent with Jiang et al. (2024), who linked readiness and familiarity to students' evaluations. Contextual factors may also have contributed, including sustained institutional investment in educational technology in Beijing and widespread access to digital devices, which support engagement with pre-class materials. The high level of English learning motivation, dominated by extrinsic motivation, reflects the broader context in China, where English competence is closely tied to academic advancement and employment. From an SDT perspective, high extrinsic motivation does not necessarily indicate an absence of internal engagement, because the theory distinguishes external regulation from identified regulation, in which learners recognise the personal value of an activity. The relatively high task value scores suggest that many students have begun to internalise the importance of English, occupying a transitional position between purely external regulation and more autonomous motivation. The lower intrinsic motivation score is common in EFL contexts where daily communicative need is limited, and is consistent with Wang et al. (2025). Designing tasks that connect English to students' everyday experiences may support further internalisation.

Relationship between Perception and Motivation

The strong positive relationship between flipped classroom perception and English learning motivation ($r = 0.612$), with perception explaining 37.5% of the variance, supports H1 and is consistent with broader review evidence (Fisher et al., 2024; Qi et al., 2024). The finding extends this evidence by showing that, within the Beijing context, positive perception of flipped practices is strongly associated with motivation. This indicates that the motivational value of flipped learning depends not on the mere existence of pre-class videos, but on whether students perceive the design as interactive, useful, and supportive. SDT offers an explanation: positive perceptions of pre-class materials reflect autonomy, perceptions of in-class interaction reflect relatedness, and engagement reflects competence, so that satisfying these needs is associated with higher motivation.

The finding that in-class interaction was the strongest predictor ($\beta = 0.252$) aligns with the constructivist emphasis on active engagement and collaboration as drivers of motivation, and with Afzali and Izadpanah (2021), Köpeczi-Bócz (2024), and Phoeun and Sengsri (2021). By contrast, the finding that pre-class materials alone did not significantly predict motivation is consistent with Jiang et al. (2024), who argued that providing materials before class is insufficient without a clear link to meaningful in-class activity. The variance explained ($R^2 = 0.375$, rising to 0.402 in the multiple regression) is notable in educational research, where behaviour is shaped by many factors. That a single construct accounts for over a third of the variance underlines its practical importance. The relatively weaker role of overall usefulness suggests that students' concrete experiences of interaction and participation matter more than abstract beliefs about whether flipped learning is superior to traditional teaching. The higher perception and motivation among experienced students suggest that familiarity with autonomy-supportive environments may foster more internalised motivation, while the absence of gender or year-of-study differences indicates that the model does not systematically favour particular groups.

Theoretical Contribution

The study offers several theoretical contributions. First, it provides empirical support for applying SDT and CLT to flipped classroom implementation in Chinese higher education, extending their relevance to a context where educational traditions may differ from Western settings. Second, by operationalising flipped classroom perception as a measurable, multidimensional construct and examining its relationship with motivation quantitatively, it provides a framework that can be replicated and extended. Third, the dimension-level analysis shows that motivational benefits derive mainly from in-class experience, which refines the understanding of how the components of the flipped model contribute differentially to motivation and offers a more nuanced perspective than studies that treat the flipped classroom as a single, undifferentiated approach. Fourth, the finding that task value occupies a middle position between extrinsic and intrinsic motivation confirms that students' motivational profiles are multidimensional rather than solely instrumental, and is consistent with SDT's continuum of motivation types, enriching the literature on EFL motivation in the Chinese context.

Implications for Teaching Practice

Because in-class interaction was the strongest predictor of motivation, educators should prioritise the design of engaging, interactive in-class activities that promote meaningful

communication, collaborative problem solving, and the immediate application of knowledge. Small-group discussion, role-play, case analysis, peer teaching, and project-based tasks that require students to use English in authentic contexts are likely to be most effective, and these should build directly on the pre-class materials. Pre-class materials, in turn, should be clearly connected to in-class activities so that students see the purpose of their preparation; brief pre-class tasks or reflection questions can encourage more active engagement and help students arrive better prepared for interactive learning. Given the strength of extrinsic motivation, educators can draw on career-oriented interests by incorporating professionally relevant content such as business communication, academic presentation skills, professional writing, and mock interviews, helping students recognise the immediate relevance of English to their goals. Because intrinsic motivation was the lowest dimension, deliberate efforts to nurture personal interest are also needed; allowing students to choose topics for discussion or presentation can strengthen their sense of autonomy and personal relevance, which SDT identifies as key drivers of intrinsic motivation. A gradual introduction to the flipped model, beginning with selected sessions, together with regular feedback mechanisms such as short mid-semester surveys, can help students adapt to new expectations and allow lecturers to refine the instructional design.

Implications for Curriculum and Institutional Policy

At the institutional level, curriculum designers should incorporate structured flipped learning components into course syllabi, with clear specifications for both pre-class preparation and in-class activities, supported by learning management systems and online platforms for delivering pre-class materials. Assessment practices should align with flipped pedagogy by recognising participation, collaboration, and application rather than relying solely on traditional examinations; peer assessment, portfolio-based evaluation, and in-class presentations may reinforce the motivational benefits observed in this study. Professional development for English lecturers should include training in effective flipped classroom design, with particular attention to creating meaningful in-class activities, since many lecturers are familiar with the concept but may need guidance in designing activities that genuinely promote interaction and deep learning. University administrators should invest in flexible classroom infrastructure and multimedia resources, provide workload recognition and incentives for innovative teaching, and establish monitoring and evaluation systems to assess the quality of implementation across departments. Partnerships with institutions that have implemented flipped programmes successfully can further accelerate improvement across the wider higher education landscape.

Conclusion

Limitations and Future Research

Several limitations should be acknowledged. The cross-sectional design does not permit causal inference, since more motivated students may perceive flipped classrooms more favourably; longitudinal or experimental designs would be needed to establish causality. The reliance on self-report data introduces the possibility of response biases, and future studies could incorporate observational data, learning analytics, or interviews. Convenience sampling from three universities limits generalisability to other institutions and regions. The study did not control for factors such as prior achievement, English proficiency, learning style, or lecturer characteristics, and its measures captured overall rather than implementation-specific perceptions. Future research should adopt longitudinal and mixed-methods designs,

examine additional variables and outcomes such as language anxiety and self-regulated learning, and compare contexts across regions to strengthen generalisability.

Concluding Remarks

This study examined flipped classroom perception and English learning motivation among university students in Beijing and the relationship between them. Both constructs were at a high level, with interactive elements and career-related motivation rated most positively. A strong, statistically significant positive relationship was found, and flipped classroom perception explained a substantial share of the variance in motivation, with in-class interaction and activities as the strongest predictor. The findings provide empirical support for Self-Determination Theory and Constructivist Learning Theory in the context of flipped English instruction, and they indicate that the motivational impact of the flipped classroom depends mainly on the quality of in-class engagement rather than on pre-class materials alone. Viewed not simply as a rearrangement of content delivery but as a pedagogical approach whose value rests on well-designed interaction, the flipped classroom offers educators, curriculum designers, and administrators a practical means of supporting motivation and engagement in English language learning in Beijing's universities and comparable settings.

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